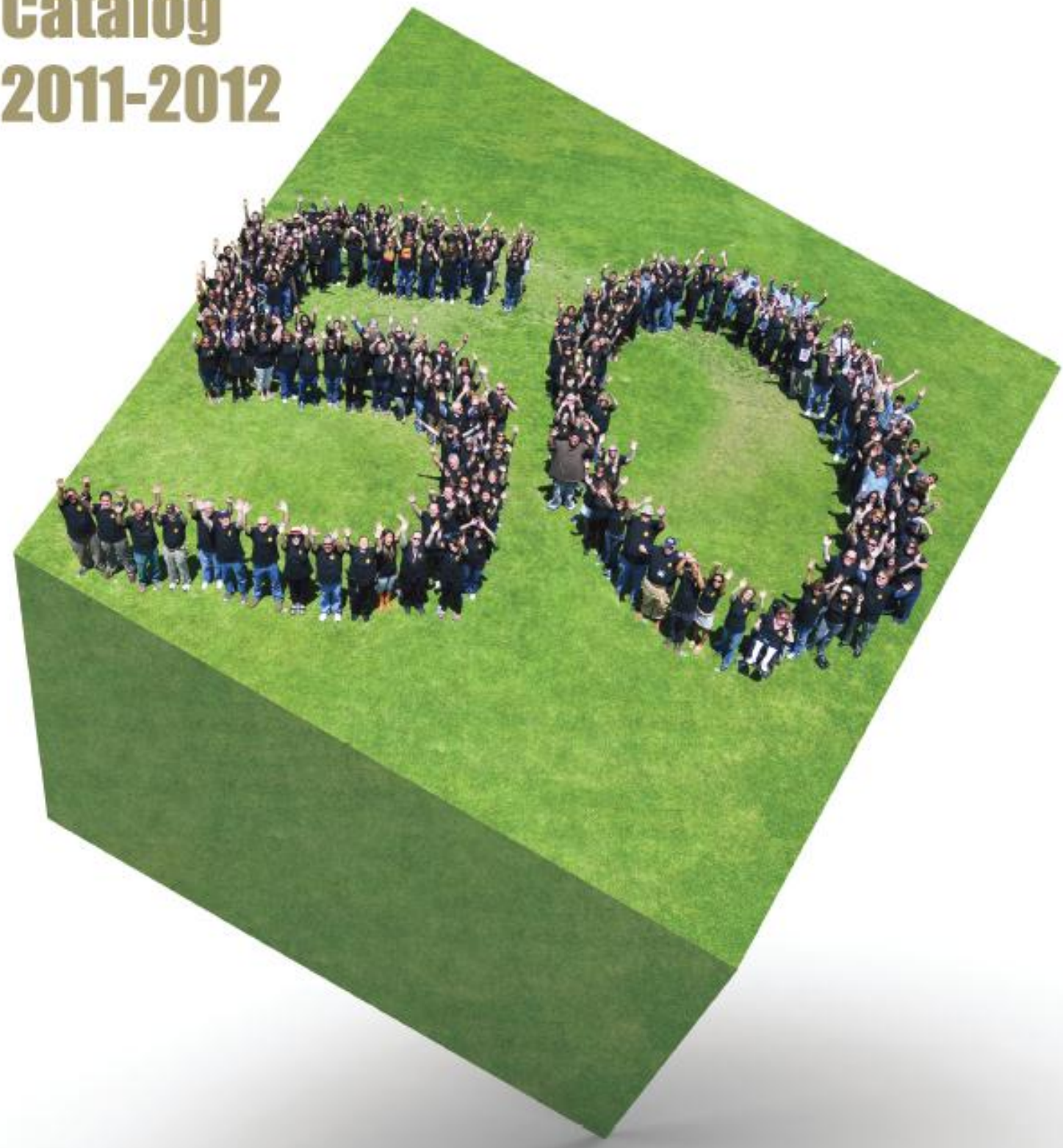
VICTOR VALLEY COLLEGE

Catalog 2011-2012



Celebrating 50 Years

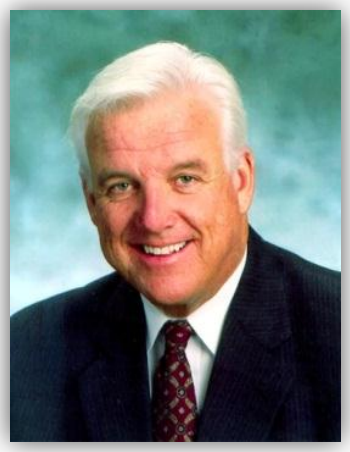
2011-2012 Catalog

VICTOR VALLEY COLLEGE
18422 Bear Valley Road • Victorville, CA 92395-5850
(760) 245-4271

www.vvc.edu

TABLE OF CONTENTS

TABLE OF CONTENTS



Welcome! On behalf of all of us at Victor Valley College, I would like to extend our warmest congratulations for your decision to select Victor Valley College. We are here to help you to make a successful transition from one point in your educational journey to the next. By working together and taking advantage of all that is offered, you should have no problem reaching your goals and expectations. Our entire faculty and staff are here to assist you in this endeavor.

You have joined us at a momentous time. This year, we are observing 50 years of service to students of the High Desert. In those 50 years, the College has helped launch the careers of thousands of people including national leaders, scientists, medical professionals, artists, business owners, service industry professionals and much more. You are our future and we want you to become the author to your own success.

We offer years of accumulated experience and a wide-ranging selection of outstanding academic and career training programs to help you explore and define your future. Whether you are a new or continuing student, I recommend you become familiar with the information contained in this catalog, as it will be your planning guide for your experience at Victor Valley College.

For a half century, Victor Valley College has offered students the opportunity to prepare themselves for transfer to a four-year college or university, an A.A. or A.S. degree, specialized careers, and advanced career training for the currently employed. We offer you these same opportunities. To become successful, you'll need to work hard, go to class, and avail yourself of the many programs and services that are in place to help you succeed. These programs and services will help you plan your course of study, finance your education, assist you with your studies and open doors to an involved campus life.

You will find that you can choose from more than 200 career and certificate programs and a full range of basic skills and personal development courses. I am confident, that while you are here, you will have the opportunity to further your interests, clarify your goals, expand your knowledge and discover new and exciting possibilities for a future career.

Again, I welcome you to our **Friendly, Beautiful, Greener, High-Tech c**ampus. It is an ideal learning environment. Thank you for joining us during our anniversary year and we wish you the best as you pursue your dreams. "Your Future is our Passion."

Christopher O'Hearn

Christopher O'Hearn Ph.D.
Superintendent/President

PRESIDENT'S MESSAGE

LOCAL HISTORY OF THE VICTOR VALLEY

Long before the valley became homesteaded, clean water pools along the Mojave River offered all sorts of weary travelers a life sustaining opportunity to halt their journey and set up camps at a place that would later become known as the Victor Valley (named after railroad engineer, Jacob Nash Victor in the late 1800), Lush green vegetation, access to water, and indigenous wildlife attracted Native Americans, Spanish missionaries, settlers in wagon trains coming from Utah and other points of departure, miners seeking their fortunes in the gold fields to the north, early explorers, cowboys herding cattle, and later railroad people.

The next natural step was the arrival of goods and wares merchants who set up shop out of their wagons to feed, supply and outfit these wayfarers. As the stream of travelers increased, the first trading post was established in a place that later became known as Oro Grande. In time, the railroad completed laying track through the mountains and over the desert and people began to settle in the region. It didn't take long before enterprising land developers and businessmen and women saw the opportunity to profit from this influx of people and the region began to grow.

The cities of Victorville, Hesperia, and the Town of Apple Valley came to be. With the commerce, came a need for schools. The first high school (Victor Valley High School) was established in 1915 and serve as the only high school for the next 65 years. Since the mid-80s, more than 20 diploma granting institutions were chartered to facilitate the needs of an ever expanding population. The next logical step for the people of the High Desert was to establish a college to serve the needs of the region. It was on the campus of Victor Valley High School that Victor Valley College began its Tradition of Excellence 50 years ago.

COLLEGE HISTORY

The College was originally chartered in 1960 and began operations in 1961. Classes were held in a small building that sat on an upper tier of classrooms at the rear of the high school campus. Only fifteen staff, faculty and administrators were employed to meet the needs of approximately 500 students. In 1963, it became evident that the college needed its own space. Valley officials secured the funding through a local bond to purchase land and begin the construction of a new campus that, at the time, would be located at the far reaches of the surrounding communities. Today it is centrally located to the three major cities in the region. The site contained 260 acres of land, formerly known as the Kalin Ranch and featured river valley bottom land and a mesa rising above the bluff and running parallel to the river. It is on the mesa that the former cattle ranchers maintained a large stock pond that would become the focal point of the campus as it exists today.

The original six buildings still serve students and can be identified by their signature block design and burnt red roofs. The campus opened to students in 1965. Since that time, the campus expanded to include nine new facilities and a vocation/technical complex.

A wider transformation is taking place at Victor Valley College because of the passage of the first local bond measure to be approved by the voters since an initial capital bond was passed in the early 60s. In November 2008, the voters approved a bond measure (Measure JJ) dedicated to the elimination of past debt, the upgrade of college infrastructure, the purchase of land for a future campus sight on the Westside of the Victor Valley, and funding for the construction of an Eastside Public Safety Training Center. This center is now under construction with a completion date scheduled for December 2011 and will serve as a regional training facility for future firefighters, paramedics, police and correctional officers. Additionally, Victor Valley College completed a one megawatt solar power generating plant that supplies more than a third of the campus' energy needs.

CHANGING EMPHASIS

Today, the college is a major institution of higher learning offering a complex schedule of educational opportunities to meet the changing needs of this growing region. The college serves between 14,000 and 17,000 students per semester. This translates into an annual FTES of over 10,000.

Current curriculum includes all the basics for transfer, degrees, certificates and job training. New areas of study include innovative programs in solar panel installation, maintenance, and repair; hybrid car maintenance and repair; GPS studies; land restoration; digital animation and much more. Nursing still remains one of the most sought after areas of study offered by the college.

INNOVATIVE PARTNERSHIPS

Participation in innovative partnerships has enabled the college to expand programs, offer new training opportunities, and increase revenues that, in part, replace funds lost due to reductions in state appropriations. For example, the college has formed partnerships with local hospitals resulting in an increase in the number of nursing students able to enroll in the college's program. Internships with one of the local cities has created additional training opportunities for automotive students, and grants received through State and County agencies have expanded workforce development programs that eventuate in immediate employment opportunities for students. The college has also increased outside sources of revenue through lease agreements with local and regional entities.

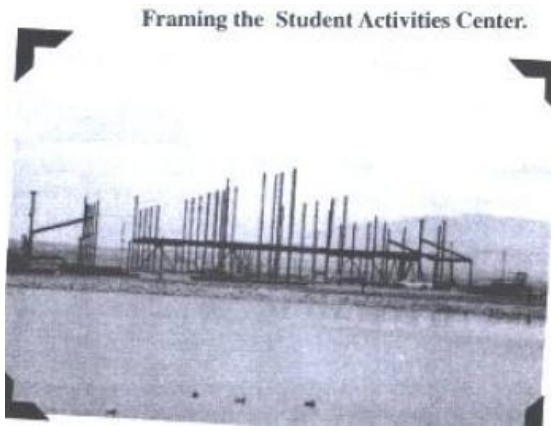
A HISTORY OF SUCCESS

For 50 years, thousands of High Desert residents have made the journey to Victor Valley College and gone on to become contributing members of society. From their ranks are civic leaders, business people, service industry personnel, medical providers, first responders, and people of all walks of life who are contributors to the health and welfare of our community. In 2006, the College Foundation commissioned a study with Michael J Bazdarich, MB Economics and Senior Economist, UCLA Anderson Forecast to determine the economic impact VVC has on our local economy. This report estimated the gross annual impact to be nearly $900 million. This number now exceeds $1 billion.

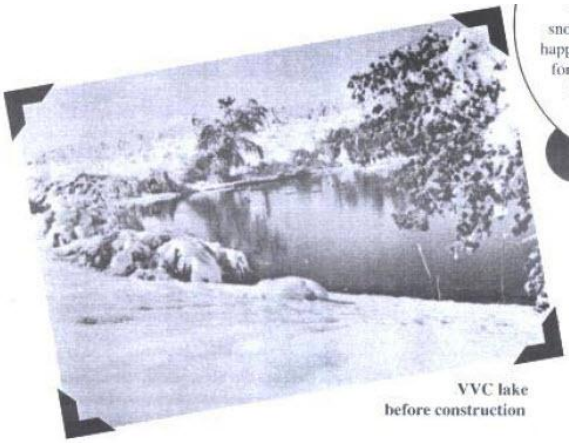
Ground Breaking Ceremony

Ground Breaking Ceremony for New Campus November 18, 1964 *(from left) Henry Johnson, Board of Trustees member; Fred Berger, President, VVC; and Burt Wadsworth, Dean of Students.*

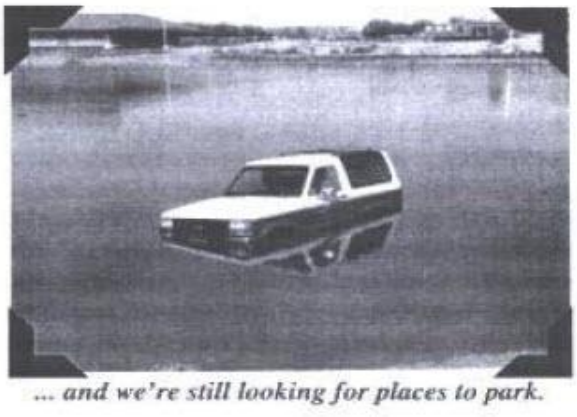
VVC Student Activities Center



VVC Lake Before Construction



Parking

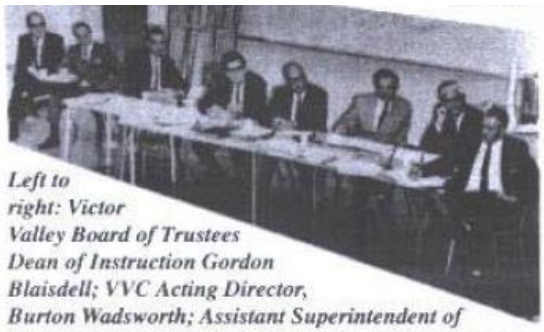


COLLEGE HISTORY

Victor Valley College 1970

VVC campus circa 1970.
(Note that the Student Services/ Administration Building is missing in the background.)

Victor Valley Board of Trustees



Left to right: Victor Valley Board of Trustees Dean of Instruction Gordon Blaisdell; VVC Acting Director, Burton Wadsworth; Assistant Superintendent of Schools, Edward Wurtele; Board of Trustee members, Dr. James L. Killpack; Paul F. Kirkpatrick, Robert Graves, Henry Johnson, and Superintendent of Schools, Harvey S. Irwin (Absent from photo was Board member Virgil Dilsaver.)

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Campus Aerial View

Campus aerial. circa 1982.

Henry Johnson

Henry Johnson - Member of the Victor Valley College Board of Trustees in the beginning of the college and former member of the United States Olympic Rifle Team

The Final Beam for the Science Building

Signing the final beam for the Science Building are (from left) Tom Elder, Maxine Moore, Bettye Underhill and Dick Powell.

Fred Berger VVC's 1st President

Polly-Fitch

WELCOME TO VICTOR VALLEY COLLEGE

VISION, VALUES, MISSION & GOALS

VISION

Victor Valley College uplifts the diverse communities we teach and serve by promoting educational excellence, enhancing local prosperity, and ensuring environmental leadership.

VALUES

As a student-centered learning organization, we will uphold the following core values:

- **Excellence -** providing superior service and educational learning opportunities.
- **Integrity -** guiding the college's actions with an internally consistent framework of principles.
- **Accessibility -** facilitating access to the college's programs from other locations.
- **Diversity -** valuing different points of view and contributions of all.
- **Collaboration -** encouraging recursive interaction of knowledge experience and mutual learning of people who are working together toward a common creative goal.
- **Innovation -** providing creative approaches to learning problem solving and growth.

MISSION

The mission of Victor Valley College is to:

- **Cultivate -** intellectual growth, social responsibility, environmental stewardship, cultural enrichment, and economic development.
- **Create -** exceptional and accessible lifelong learning opportunities that afford students within our expanding communities the attainment of knowledge and skills necessary for success in the global economy.
- **Embrace -** difference in our communities by integrating their wealth of multicultural knowledge and wisdom into a cohesive and resourceful learning environment for all.
- **Inspire -** innovative teaching and service with imaginative uses of collaboration and technology, fostering vibrant programs that are measurably effective in addressing student learning and community needs.
- **Empower** each student to learn by modeling academic integrity, democratic citizenship, and meaningful contribution to society.

GOALS

The goals of Victor Valley College are to:

- create sustainability and environmental stewardship for our colleagues, our students, and our community.
- become an agile learning organization consistent with the needs of students and the communities that the college serves.
- offer educational programs that lead to meaningful and measurable student learning and success through seamless transfer opportunities to colleges, universities, and careers.
- increase the number of students served through recruitment, persistence, and retention strategies.
- provide affordable and attractive options for members of the community seeking a post-secondary education, which includes an environment in which diversity thrives.
- develop and deliver enriching courses for community members and businesses seeking additional training and development.

BOARD OF TRUSTEES

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

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

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

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

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

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

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

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

MEET THE TRUSTEES

Dennis Henderson	President
Joe Range	Vice-President
Michael Krause	Trustee
Lorrie Denson	Clerk
Joseph W. Brady	Trustee
Judy Schmoll	ASB President and Student Trustee

CAMPUS CULTURE AND CLIMATE

At Victor Valley College there is one constant upon which everything is based: The student is first! This is true in all stages of planning and implementation, including 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.

Accordingly, Victor Valley College seeks to enhance its 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

Christopher O'Hearn, Ph.D.,
Superintendent/President

Peter W. Allan, BA, MBA, JD
Interim Executive Vice President, Instruction and Student Services.

G.H. Javaheripour, Ed.D.,
Vice President, Administrative Services

Fusako Yokotobi, M.P.A.,
Vice President, Human Resources

Virginia Moran, M.A.,
Executive Dean, Institutional Effectiveness

Frank Smith, M.A.,
Executive Dean, Technology & Information Resources

Lori Kildal, Ph.D.,
Academic Dean, Science, Technology, Engineering and Mathematics

Pat Luther, Ed.D.,
Academic Dean, Health Sciences & Public Safety

E. Paul Williams, Ph.D.,
Academic Dean, Humanities & Social Sciences

Timothy P. Johnston, Ed.D
Dean, Student Services

WHAT WE OFFER

Adult/Community Education

Victor Valley College maintains a program of Adult/ Community 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/Community 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, 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.

Continuing Service

Victor Valley College offers self-financing Community Education workshops in areas in which students may desire personal growth or have a particular interest. These are not-for-credit workshops opened to the public with no units attached to them. These self-supporting workshops are offered for enrichment in a variety of subjects. Some workshops require an additional material fee or optional fee. Community Education workshops are funded entirely by fees collected at the time of registration. Fees for Community Education workshops are not refundable unless the particular class is canceled.

Degrees and Certificates

Victor Valley College offers two degrees and over 100 certificates of achievement for satisfactory completion of specific programs of study. For a complete listing, see the first two pages of this Catalog.

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

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

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

Non-degree continuing education courses for adults are also offered 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.

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

At least 12 units must be completed while the student is a resident of the Victor Valley Community College District. Students receiving a Certificate of Achievement must have completed all required courses with a grade point average of "C" or better, including 12 units in residence at VVC.

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

For more information about earning a degree at VVC, please see Section VII, "Moving On," later in this Catalog.

Technical Education

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

The College offers certificates in many areas of study, including Administration of Justice, Allied Health, Automotive Technology, Business Administration, Business Real Estate and Escrow, Business Education Technologies, Child Development, Construction Technology, Computer Information Systems, Computer-Integrated Design and Graphics, Electronics and Computer Technology, Fire Technology, Nursing, Paralegal Studies, Restaurant Management, Respiratory Therapy, and Welding.

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

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

Student Honors

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

To qualify for these prestigious honors, students must complete at least 12 units of credit classes with a letter grade (A, B, C) each semester 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.

Graduation Honors

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

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

Academic honors are as follows:

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

These honors are noted on student diplomas.

ABOUT YOUR CAMPUS

Student Responsibilities

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

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

Students must plan their own education by carefully considering the courses they take and the requirements

for the educational degrees and certificates which they seek.

Student responsibilities include the selection of courses which will complete the general education and major requirements of the area in which they are studying (See Section VII - 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 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 can be downloaded from the VVC website.

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 nearly 17,000 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.

Equal Opportunity Policy

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

Reglamento Imparcial de Oportunidad

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

Sexual Harassment

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

Acoso Sexual

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

Student Affirmative Action Plan

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

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

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

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

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

Discrimination Complaint Procedure

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

Nondiscrimination Policy

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

Inquiries regarding the application of this policy may be directed to the appropriate compliance officer for Title 5

and Coordinator for Title IX, Regulation 504/ADA - Director of Human Resources, Victor Valley College, 18422 Bear Valley Rd., Victorville, CA 92395 (760) 245-4271, extension 2386.

Política No Discriminatoria

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

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

Student Record Notice/Directory Information

The Federal Family Education Rights and Privacy Act of 1974 protects the privacy of student records. Student records primarily include those found in the Admission and Records Office (admission application, transcripts, petitions, etc.) and the Office of the Dean of Students (discipline). The required log of access to these records is kept in each office. Officials may access these records when operating within the scope of their assigned duties. Students may have access to their records with appropriate notice and when payment of appropriate cost is made; they may challenge the content as determined by campus policy.

The college is authorized to release directory information, which at VVC includes degrees, certificates, and awards received by students, including honors, scholarship awards, athletic awards, academic recognition and Deans List recognition. Also included is student participation in officially recognized activities and sports, including height, weight, and high school of graduation of athletic team members. A student may prohibit the release of this information on the initial application for admission.

Americans With Disabilities Act (ADA)/504

Victor Valley College does not unlawfully discriminate based on physical or mental disability. Complaints from students, employees or the public about unlawful discrimination in academic accommodation or access to facilities due to disability should be directed to the ADA/504 Coordinator, who is the Vice President for Administrative Services. Complaint procedures may be obtained from that office, or from the office of the Dean of Students. Students with physical disabilities are encouraged to seek services at the campus DSPS office, located in the Student Services Building; students with learning disabilities can find help at the Academic Commons.

Information for ESL (English as a Second Language) Students

The ESL program is designed for Second Language learners to develop their skills in English. Students can receive information regarding the ESL program and the registration process by attending an ESL Orientation, which is part of the matriculation steps. ESL students would also have the opportunity to meet with an ESL Counselor to develop an Educational Plan and clarify any questions.

Información Para Estudiantes de Inglés Como Segundo Idioma (ESL)

Los estudiantes que están aprendiendo Inglés Como Segundo Idioma (ESL) pueden recibir información respecto a los cursos ofrecidos y a cómo inscribirse através de la Orientación para el programa ESL. Después de haber asistido la junta de orientación, cada estudiante puede hacer una cita individual con el/la consejera bilingüe para desarrollar un plan de estudio.

GETTING AROUND CAMPUS

AN OASIS OF LEARNING

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

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

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

Here is a list of Victor Valley College facilities:

Athletic Facilities

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

Athletic facilities are located on the lower campus and include the main gymnasium (Building 71) with a seating capacity of 2,040, 10 outdoor tennis courts, softball diamond, baseball diamond, football field, clay track, and four soccer fields.

The intercollegiate sports offered are football, softball, baseball, men's/women's tennis, men's/women's soccer, women's volleyball, men's/women's basketball, wrestling, men's golf, and men's/women's cross country. Victor Valley College Rams compete against other teams within the Foothill Athletic Conference, as well as teams from other colleges and universities.

Regarding availability and rental fees, community groups wishing to use any facilities must contact the Facilities Scheduling Office at (760) 245-4271, extension 2707.

RAMS Bookstore

Located in the Student Activities Center/Community Conference Center (Building 44), the Rams Bookstore is owned and operated by the Victor Valley Community College District.

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.

Textbook rentals are now available at http://vvcrams.bookrenterstore.com/. You can rent your textbooks for a week or a whole semester!

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

Campus Police Services

Located in front of the Student Activities Center (Building 44). Police office hours are Monday-Thursday, 8:30 a.m. - 5:00 p. m. Friday, 7:30 a.m. - 4:00 p.m. Call (760) 245-4271, ext. 2329. After hours and weekends, call ext. 2555. In an emergency, dial 911.

Child Development Center

The Child Development Lab Classroom is located in Building 12 on upper campus, next to Excelsior Education Center. The primary goal is to provide a lab for Child Development program students to receive professional training that is required for certification and to observe children in a quality program to further their understanding of child growth and development.

Additionally, we are funded by the California Department of Education, Child Development Division as a State Preschool so that we can provide free care to eligible families. Eligibility is determined by income level and family size.

The State Preschool program offers a part-day, five day-a-week program designed to serve the income-eligible child during the year prior to kindergarten. The Lab Classroom is a high quality, state licensed (#360906573) facility with credentialed staff who strive to provide a positive nurturing, active learning environment for children.

Please call the Lab office at 760.245.4271, ext. 2618 for further information.

Classroom Complexes:

- ACADEMIC COMMONS (Building 42) - Located at the north side of the lake and is the site for the Office of the Dean of Humanities, Arts, and Social Sciences, Cooperative Education office, Upward Bound (Math & Sciences), BADM and CIS full-time instructors, AFT faculty offices and CIS classrooms.

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

- ALLIED HEALTH BUILDING (Building 32, 32A, 32B, 32C) - The Allied Health Building, located to the northwest of the lake, contains classrooms for the study of nursing, respiratory therapy, and other health-related

subjects. Faculty offices are located in portable buildings nearby and the Allied Health Building.

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

■ ANIMATION LABORATORY (Building 67) - The Animation Lab is located on the lower campus between Vocational Education and Construction Technology.

■ SEWING COMPLEX (Building 72) - The Sewing Center is located on the lower campus between the Main Gymnasium and the Auxiliary Gymnasium. It also contains a general purpose classroom.

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

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

■ HUMANITIES CENTER (Building 80) - Houses CSUSB and Azusa Pacific University. It's located on the lower campus near the corner of Bear Valley and Fish Hatchery Roads.

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

■ LOWER PORTABLES (Buildings 66A, 66B) - Houses AJ classes and the ALDH lab. These portables are located on the lower campus behind the Construction Technology Building.

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

■ PERFORMING ARTS CENTER (PAC) (Building 54) - The PAC houses the Communication Studies (CMST) and Theater Arts (TA) classes. The design lab, lighting lab, costume lab, rehearsal room, make-up lab, and scene shop are located on the first floor of the PAC. The CMST classrooms and communication lab are located on the second floor of the PAC.

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

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

■ TECHNOLOGY CENTER (Building 21) - The Technology Center is located on the southwest corner of the lake between the Art and Music buildings. The 34,117 square foot center is a multipurpose laboratory and office facility that provides voice, video, data and power ports to more than 700 student computer stations. The facility also has a computer center for open entry individual study courses. Faculty offices are located in the building along with special purpose rooms that are equipped with the latest in smart classroom interactive technology. The Computer and Information Resources (CIR), formerly MIS and IT, are located in the technology center.

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

■ UPPER PORTABLES (Building 51C) - This building includes the offices of GearUp..

Language Lab

Our language programs focus on developing reading, writing and audio-oral communication skills in French, German and Spanish. The software available in the language lab supports students' language acquisition by offering a variety of exercises (grammar, written and oral expression, and listening comprehension) which allow them to practice the subjects learned in the classroom and which are integrated with their textbooks. Among the most important features the language lab offers to students in developing their linguistic competence and achieving their academic goals are listening to the target vocabulary as many times as individual needs require, practicing the grammatical structures at their own pace, improving their test results by receiving immediate feedback, and voice recording. Students may also explore Internet sites to practice their written and reading skills

The Language Lab is located in Building 30, Room 11. Hours: 8:45-12:30 and 1:30-5:00 Monday; 8:45-12:30

and 1:30-9:00 Tuesday, Wednesday, Thursday, Friday; 10:00-2:00 Saturday.

Library

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

Library holdings may be found by searching the online catalog available from the Internet at http://www.vvc.edu/library. There are 34 computers in the library available for accessing the Internet, online catalog, and subscription databases. An ADA workstation equipped with adaptive technology software is available for students. Currently enrolled students may apply for passwords for off-campus access to the subscription databases.

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

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

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

Instructional Media Services (IMS)

IMS is located on the upper campus in Building 52. Instructional Media services are available to faculty, staff, and students. A variety of equipment can be scheduled campus-wide for use in classrooms or for meetings. Faculty and staff are encouraged to immediately report all malfunctions of equipment assigned to classrooms, equipment hubs, or other locations. Please call 245-4271, ext. 2424 or ext. 2263 to report problems with equipment, along with placing a work order in the OPRA system. Equipment training is available to faculty and staff; please check the training calendar located at www.vvc.edu/training. IMS equipment is also available for students visiting the Library to view VHS or DVD media materials that are indexed in the Library card catalog. Audiocassette and CD players with headphones, as well as slide projectors, are housed in the carrels.

Instructional Media Services hours: Monday-Friday, 7:00 a.m. – 3:30 p.m., and during the Summer, Monday-Thursday, 6:00 a.m. – 3:50 p.m. Phone support is available after hours and Saturdays. For additional information, call IMS at (760) 245-4271, ext. 2424 or 2263.

Parking Rules and Regulations

All vehicles parking on the Campus must abide by the parking rules and regulations. Semester permits are available from the Bursar. Additional parking is available at the meters. Daily permits can be purchased for $2.00 at the dispensers in parking lots 4, 6, 12, and 16. Permits are not valid in metered stalls. Permits must be displayed in plain view. Parking permits are required Monday thru Saturday. The College provides officers for patrol of the parking lots. However, persons parking on district property do so at their own risk. Victor Valley College does not assume any responsibility for loss or damage to vehicles or their contents while parked anywhere on District property.

Alternative Parking Option

In addition to semester parking permits, the College offers students and visitors an alternate parking option:

Parking meters are located in Lot #6. They are intended to meet short-term parking needs (meters accept quarters only). Student permits are not valid in metered stalls.

Parking Enforcement & Regulations

All vehicles parking on the campus must abide by the parking rules and regulations.

Parking violations may include:

- not displaying a valid parking permit
- improper display of permit
- backed into stalls/head-in parking only
- unauthorized parking in faculty/staff parking stalls
- not parked in marked parking stall
- exceeded time at a parking meter
- possession of a lost/stolen permit
- unauthorized parking in Red, Green or Yellow zones
- unauthorized parking in Disabled parking stalls
- parking in unauthorized dirt areas

Citations.

The VVC Campus Police Department receives its authority to enforce traffic and parking regulations from the California Penal Code, the California Vehicle Code, and provisions established by the California State Legislature. Ignoring a citation will result in immediate legal action in the form of substantial additional penalties and a hold placed on your vehicle registration with the DMV, and a transcript hold at VVC.

Motorcycles. A motorcycle parked at VVC must display a student parking permit which must be affixed to the motorcycle and clearly visible. A staff permit is required on all motorcycles parked in staff stalls.

Disabled Persons Parking. Vehicles parked in the blue-lined disabled persons parking stalls are required to properly display a state-issued disabled person's license placard and a VVC student parking permit.

Habitual Parking Offenders. Any vehicle that has been issued five (5) or more parking citations that are unpaid is subject to tow-away, per CVC 22651.

Traffic Rules. All California vehicle laws are enforced. Violators are issued citations to the Victorville Traffic Court.

Performing Arts Center

Located off Jacaranda Road and Bear Valley Road at the center of the campus, the PAC (Building 54) is a 493-seat proscenium theatre that supports professional dance, ballet, symphony, musical and dramatic stage productions, choral concerts and a wide variety of community events. Seminars, travel lecture series, public forums are also supported. For event information 24 hours a day, call: (760) 245-2787 (A.R.T.S.) For rental information call (760) 245-4271, ext. 2440.

The PAC houses the Communication Studies (CMST) and Theater Arts (TA) classes. The design lab, lighting lab, costume lab, rehearsal room, make-up lab, and scene shop are located on the first floor of the PAC. The CMST classrooms and the communications lab are located on the second floor of the PAC.

VICTOR VALLEY COLLEGE-VVC PRESENTS

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

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

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

Restrooms

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

Student Activities Center/Community Conference Center

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

Included in the center are the Associated Student Body (ASB) offices, Computer Room, RamPage student newspaper office, PTK (Honor Society), Conference Center, Faculty/Staff Dining (Desert Rock Café), S & B Foods (Chinese, pizza, and American dishes), Rams Café (gourmet coffee, teas, pastries, and the famous Seattle Freeze), Foundation Office, and the Rams Bookstore. Campus Police are located in front of the Student Activities Center.

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

Student Services Building 1

Building 52 is a "one-stop" student center for admissions, registration, Bursar (fees) and financial aid. A Student Services computer lab is available to students who need to apply for admission, select courses, or apply for financial aid. Lab hours are Monday – Friday, 8:30 a.m. – 5:00 p.m. (closed one hour for lunch).

Student Services Building 2

Located adjacent to the Performing Arts Center, Building 50 houses Disabled Students Programs and Services (DSPS), Extended Opportunities Programs and Services (EOPS / CARE) and CalWorks offices.

Telephones and Vending Machines

Public telephones have been placed at several locations around the campus for the convenience of students.

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

Vending machines dispensing a variety of food and supply products are located throughout the campus.

Ticket Information Center

Located near the south entrance to the Performing Arts Center (building 54), just off parking lot 6. Tickets for college sponsored events may be purchased in person, Tuesday – Friday from 10:00 a.m. – 6:00 p.m. or 1 hour prior to performance time. Tickets are also available online. For more information about upcoming events, visit the PAC's webpage at www.vvc.edu/tix or call (760) 245-4271, extension 849 (TiX).

ADMISSIONS AND REGISTRATION

ADMISSIONS

For nearly half a century, 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 of Health Sciences, Public Safety, and Industrial Technology, located in the Voc Ed Building 8A, can provide details regarding application procedures and deadlines for these programs. Directors of the individual programs will also provide application information.

Students who are eligible to attend the college must first be admitted to the college, and then register for classes prior to the semester in which they start school. Admissions begins in March for Summer and Fall terms, and in September for Winter and Spring sessions.

Eligibility

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

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

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

Residency Requirements

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

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

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

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

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

Authority To Determine Residence

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

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

Victor Valley College

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

EL PROCESO PARA ESTABLECER RESIDENCIA EN CALIFORNIA

Residencia Física En California

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

- Adultos con más de 18 años y son ciudadanos de los Estados Unidos que han declarado su residencia en California por más de un año y un día antes del primer día de instrucciones o de semestre y se ha sostenido independientemente por aquel tiempo y presenta los requisitos de residencia.
- Personas de menos de 18 años que depende de un residente legal del estado de California por más de un año y un día antes del primer día de instrucciones o de semestre de admisión que requiere una clasificación.

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

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

El Intento de Declara Residencia Fisica en el Estado de California

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

- Mostrar una dirección de domicilio en California en los documentos de impuestos estatales.
- Mostrar una dirección de domicilio en California en los documentos de impuestos federales.
- Documentos que demostré la entrada a California en forma de un acuerdo legal (ejemplos: casamiento u divorcio)
- Poseer documentos que son requeridos por las fuerzas armadas y que demostré el estado de California como residente
- Obtener una licencia de California para práctica profesionalmente
- Registrarse para votar y votar en California
- Mantener California como su estado legal de residencia en el formulario W-2
- Establecer y mantener activas y abiertas cuentas bancarias en California y con su dirección postal (Apartado Postales no se permiten)
- Poseer propiedad donde se reside o continuamente ocupar propiedad alquilada en California
- La tarjeta de registro del *SELECTIVE SERVICE* con una dirección postal en el estado de California
- Facturas de cuentas de servicios como de gas, agua, electricidad y teléfono y que tienen un periodo de un año antes de ingresar
- Poseer documentos por el estudiante como residente que han recibido ayuda de rehabilitación, desempleo, welfare, u otros servicios estatales
- Poseer placas de un vehículo motorizado y registro del mismo en California
- Poseer una licencia de conducir de California

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

Miembros de las Fuerzas Armadas y/o Dependientes

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

Los dependientes de los miembros de las fuerzas armadas y que no son residentes del estado de California serán clasificados como residentes mientras el

miembro de las fuerzas armadas esta estacionado permanentes en California.

Special Part-time Students/Special Full-time Students
K-12 students may be admitted as concurrently enrolled students if they:

- Apply as special part-time students who would benefit from advanced scholastic or technical study and have the approval of the principal or designee 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 Admissions and Records Office.

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

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

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

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

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

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

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

1. F1 Visa Student Agreement
2. Application for Admission
3. Financial Certification
4. A minimum score of 500 written, 173 computer-based or 61 internet-based on English proficiency tests such as the TOEFL
5. Health Questionnaire
6. High School Transcripts
7. College Transcripts (if applicable). Transcripts must include an English translation by an approved evaluation service.

Fees set by the California State Legislature must be paid in advance.

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

REGISTRATION

Registration is the process of becoming officially enrolled in college.

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

Students interested in attending Victor Valley College can view the schedule online at www.vvc.edu prior to the beginning of each semester.

Students must register for classes using *WebAdvisor* through our website: www.vvc.edu. A Help Line is available for assistance or questions; call (760) 245-4271, extension 2740, or email them at WebAdvisor@vvc.edu.

Registration and other deadline dates are available on our website at www.vvc.edu.

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

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

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. EOPS/Disabled students and Military Veterans
2. a. Continuing students with 45.0-90.0 units completed at VVC
   b. VVC ASB Council members, Work Study students, student athletes, Phi Theta Kappa members, PACE program students, Cal Works students, and K-16 Bridge students (Fall semester only)
3. a. Students with 30.0-44.5 units completed at VVC
   b. Students with 15.0-29.5 units completed at VVC

4. New, Returning, Transfer students and students with more than 90.0 units completed at VVC and returning fully matriculated students
5. Concurrently enrolled K-12 students

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. Apply online at www.vvc.edu.
- 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.
- Establishment of California residency, without which nonresident tuition must be paid (see Non-Resident Tuition section in Section VI-Financing Your Education).
- The completion of all admissions procedures, orientation, assessment, and program advisement requirements, except for the exemptions noted in class schedules.
- Concurrent Enrollment Form (K-12)
- Students (other than Concurrent K-12) may register for a maximum of 18 units for either fall or spring semester. Concurrent K-12 students may register for a maximum of 11 units for either spring or fall semester. All students may register for a maximum of 8 units for the winter or summer session.

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

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

'Continuing' and 'Returning' Student Status

Continuing: For admissions and registration purposes, a student is considered to be in **continuous attendance** when he or she was enrolled in at least one transcripted, credit course the previous semester. Such students are "Continuing Students."

Returning: Students who return to VVC after an absence of at least one semester (excluding summer and winter sessions) are "Returning Students." Returning Students must re-apply to VVC and do not have the same registration priority as Continuing Students.

Program Changes (Adding/Dropping)
It is the student's responsibility to complete the drop and/or add process. If a class has a full enrollment and is closed to registration, students may add themselves to a wait list (see Wait Lists for more information). *WebAdvisor* online registration is the method to use for adding or dropping classes.

Adding Classes
Students who want to add a class once classes have started, should do so as soon as possible. The deadline to add a class is **strictly enforced. Late adds will be considered for verifiable extenuating circumstances only. Students must be registered in class prior to census.**

Withdrawing from Classes
A student may drop or withdraw (or be dropped by an instructor), only before 60% completion of the class. Students may not drop or be dropped after the 66% point, and instructors must issue a grade beyond this point. A student who drops a class (or who is dropped by an instructor) on or prior to 30% of the course will have no record of that class on their permanent transcript, although they may still be responsible for payment of fees. Drops that occur after 30% of the course, and on or before 60% of a course, will result in a W grade being entered. Students may be dropped for lack of attendance or for "good cause" as defined in the Education Code, Article 3, Sect. 76033.

STUDENTS SHOULD NOT RELY ON INSTRUCTORS TO DROP OR WITHDRAW THEM FROM CLASSES.
Failure to officially drop or withdraw by the deadline may result in the assignment of an F (Failing) or FW (Unofficial Withdrawal) grade.

Refer to the Add/Drop policy and important Dates and Deadlines in the current Schedule of Classes.

Wait Lists
Before the beginning of the semester, if a class is closed, you may place your name on a waitlist. If a seat becomes available, you will automatically be added to the class and your student account will be charged with enrollment fees.

IMPORTANT: Check *WebAdvisor* frequently to see if you have moved from the wait list to enrolled status. IT IS THE STUDENT'S RESPONSIBILITY TO CONFIRM ENROLLMENT AND PAY ANY ADDITIONAL FEES.

Transcripts for Admissions
Transcripts showing work completed at other colleges and universities must be received by the Office of Admissions and Records no later than the end of the first semester of attendance.

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

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

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

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

1. A "Prerequisite" is a course or other condition of enrollment which a student must meet with a grade of "C" or better before enrolling in a course or program.

2. A "Co-requisite" 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 co-requisite, 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, co-requisite, or limitation on enrollment violates VVCC District Policy 5109.

2. The prerequisite, co-requisite, or limitation on enrollment violates Article 2.5 of Title 5 of the California Administrative Code.

3. The prerequisite or co-requisite 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, co-requisite, or limitation on enrollment.

5. The prerequisite or co-requisite 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 Counseling Office. Challenges involving academic qualifications, health and safety, or non-course 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.

Late challenges will be considered but enrollment will not be guaranteed pending their resolution. For more details contact the Office of Admissions and Records or the Counseling Office.

SERVICES FOR STUDENTS

CalWORKs

CalWORKs is a program for TANF students to assist them when their educational goals include a certificate or degree approved by TANF. TANF (Temporary Assistance for Needy Families) provides employment-related services to CalWORKs participants to help them find employment, stay employed, and move on to higher paying jobs, which leads to self-sufficiency and independence.

Services may include assistance with parking permits, student center fees, books, supplies, and transportation; career, academic, and personal counseling; educational plans; job placement assistance to meet TANF activity requirements; child care; and various workshops.

For more information, stop by the CalWORKs Office in Building 50, or call (760) 245-4271, ext. 2592.

CAREER CENTER/TRANSFER CENTER

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

Career Center
Students interested in career exploration should visit the Career Center to take advantage of the wealth of information available there. Trained staff, utilizing computerized guidance programs and professional publications, will assist you with career research. An extensive library of career related materials such as reference books, career files and career websites can be used to discover career alternatives. Assessments are also available to help students identify career interests and educational goals. The Career Center also hosts various fairs and workshops throughout the year to help students learn about career fields. Located in Building 55, the Career Center is open Monday through Friday from 8:30 a.m. – 5:00 p.m. For further information, call (760) 245-4271 ext. 2447.

Transfer Center
Students who plan to earn a bachelor's degree after attending VVC should visit the Transfer Center. At the Transfer Center students may schedule appointments to meet one-on-one with university representatives, research institutions and majors for potential transfer, borrow college/university catalogs, request university general education certifications, and attend trips to university campuses. In addition, the Transfer Center staff will help students to fill out transfer admissions applications and complete all the steps necessary for a smooth transition. Visit us in Building 55 during the hours of 8:30 a.m. to 5:00 p.m. During the Fall and Spring semesters (not Winter or Summer), the Transfer Center stays open Mondays and Tuesdays till 7:00 p.m. For further information, call (760) 245-4271 ext. 2139.

COUNSELING SERVICES

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

Career Planning
Counselors can assist students with exploring career options. Students are also encouraged to enroll in a career planning class, GUID 100. This educational planning class helps students discover their own interests, attitudes, 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 goals, and then match classes and majors to their particular needs and interests.

Information on the college's requirements for certificates of achievement and graduation with an Associate degree is available, as is help in determining transfer requirements to other schools.

Social/Personal Development Counseling
All through life, people must fit into society, both at work and in their leisure time.

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

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

DISABLED STUDENTS PROGRAMS and SERVICES (DSPS)

Disabled Students Programs and Services provide individualized accommodations and services to students with various disabilities who are determined eligible for the program. Students with disabilities which will impact their academic experience at Victor Valley College and who want to receive services must apply at the DSPS office. Students will be asked to provide appropriate documentation to verify their disability. The campus of VVC is accessible to students with mobility impairments. Department of Motor Vehicles (DMV) placards or disabled plates are required along with a current VVC student permit for the use of disabled parking. The DSPS is located in Student Services Building II, Bldg. #50.

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

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

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

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

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

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

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

These include:

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

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

EXTENDED OPPORTUNITY PROGRAM AND SERVICES (EOPS)

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

To be eligible for EOPS, a student must be a resident of California and be enrolled in at least 12 units of classes for Fall and Spring and 4 units for Summer and Winter, 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 apply for EOPS, students must submit an application to the EOPS Office, located in Building 50. Office hours are Monday through Friday from 8:30 a.m. to 5:00 p.m.

HEAD START

The Preschool Services Department's Head Start and Early Head Start programs are now offered at VVC. For more information, call (760) 952-1215.

PSD serves Head Start and State Preschool children ages 3-5 and their families at 40 locations countywide. PSD incorporates educational, health, nutritional, and psychological services in order to help children become ready to enter and succeed in school and life in general. This includes children living in poverty, foster children, those in homeless shelters and those with special needs.

For more information about PSD's Head Start and State Preschool programs, visit http://www.sbcounty.gov or call (909) 383-2078.

STUDENT ACTIVITIES

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

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

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

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

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

Students receive an ASB card which entitles them to free admission to all VVC dance, music and theater performances, discounts to other activities, and free copies of the Victor Valley College newspaper/newsletter and other campus publications such as the college viewbook.

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.

Student Clubs
Clubs for students with a variety of special interests are an on-going part of campus life. A complete listing of clubs is available from the Office of the Associated Student Body (ASB).

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

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

Among the clubs now in existence are the PTK Honor Society, Model United Nations, Gay-Straight Alliance, California Nursing Students Association, Nursing Process 4 Club, EMT Club, Ready Rams, Theatre Club, Art Club, Biology Club, Cornerstone Christian Club, AWARE (Adults Who Are Returning to Education) Club, and the Rambassadors.

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

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

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

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

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

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

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

If you would like to learn more or become involved, please call (760) 245-4271, extensions 2331, 2278 or 2378.

THE WRITING CENTER

Located in the Advanced Technology Center, Building 21, Room 177, the Writing Center instructional assistants and student tutors are trained to work with students in a variety of writing tasks, including generating ideas, focusing on topics, adding support, organizing ideas, revising essays, researching ideas, documenting research, as well as recognizing grammar, punctuation, and spelling errors.

Software programs, word processing, and reference texts are available to help students. Tutors can also instruct in computer operations. Students from all disciplines are welcome. For information on services and hours of operation call (760) 245-4271, extension 2607or 2703. For those students not regularly on campus, visit our website for writing information and online tutoring: www.vvc.edu/offices/writing-center/.

MANAGING YOUR EDUCATION

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 and provide quality instruction.
- provide appropriate follow-up and referral services.

VVC students agree to. . .

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

Matriculation Steps

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

APPLICATION - Complete the VVC admission application online. Notify previous colleges to send transcripts to VVC.

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

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

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

- You have received a degree from an accredited college.
- You completed Intermediate Algebra equivalent to Math 90 and English Composition equivalent to English 101 at an accredited college.
- You have completed the Computerized Placement Test at another California Community College within the last three years.
- You will enroll in only non-credit classes (Adult/Continuing or Community Service).
- You are completing coursework for self-improvement (non-degree seeking).

Other factors considered in the selection of courses include study habits, certainty of educational goals, specific skills, emotional well-being, employment, family or other commitments, family support, health, maturity and motivation, self-assessment, education history, etc. On the next page is a table of course sequences for Math and English.

You have the right to challenge your Assessment Placement results and course recommendations.

COUNSELING – Before or sometime during your first semester, make an appointment with a VVC Counselor to discuss course selections, choosing an academic major, and developing an Educational Plan which lists the courses you need to meet your academic goal. The 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 choices.

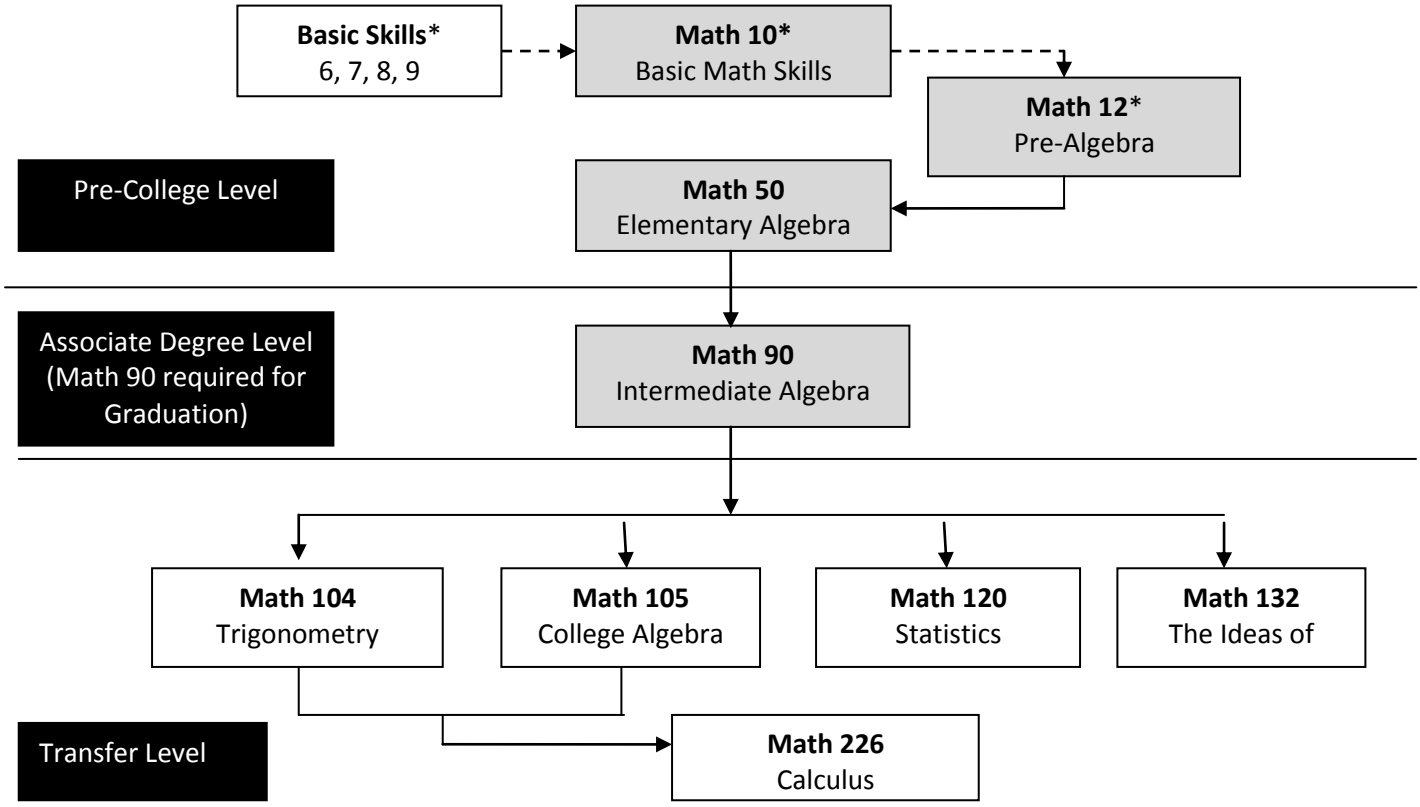
Also, consider taking the following Guidance courses:

- GUID 50 College Success
- GUID 51 College Orientation
- GUID 55 Building Math Confidence
- GUID 56 Self Esteem
- GUID 100 Career Planning
- GUID 101 First Year Experience
- GUID 105 Personal and Career Success
- GUID 107 Learning Strategies

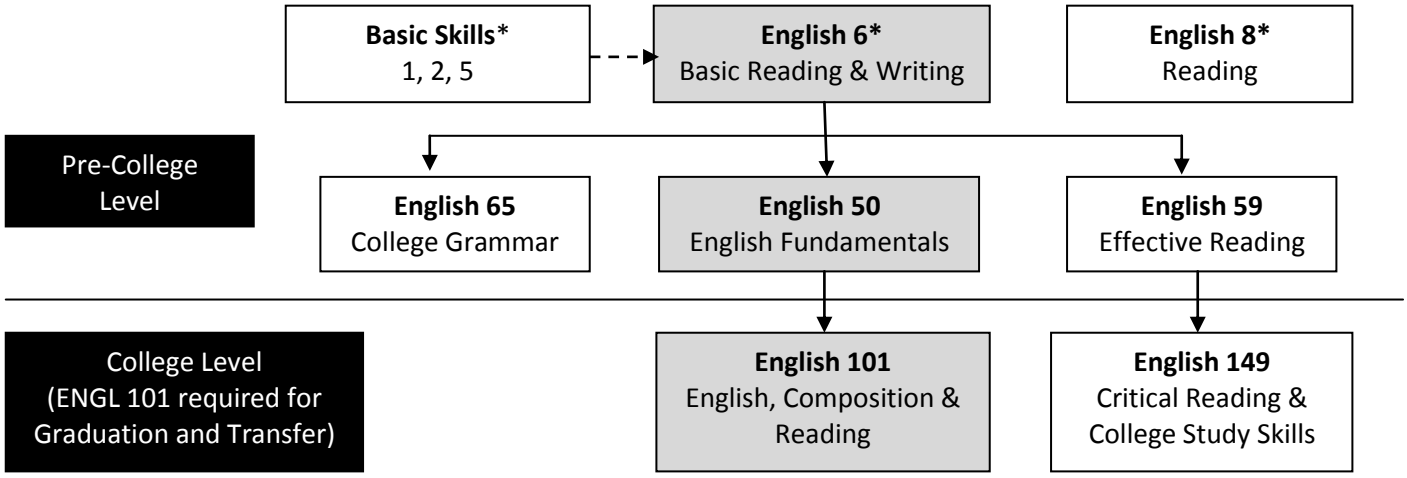
HERE IS WHAT YOUR ASSESSMENT SCORES MEAN!

Everyone enters college with different levels of skill and experience in English, Reading and Math. Your assessment scores are one indicator of your level in each of these areas. Among the other factors to consider are what classes you took in high school, how well you learned that material, what you've done since high school, and your commitment to your educational goals. The following tables show course sequences. Start at the level you place into on the assessment test, and move through the courses as needed for your particular objective. *Courses marked with an * do not count toward the associate degree.

MATH COURSE SEQUENCE



ENGLISH AND READING COURSE SEQUENCES



Schedule of Classes
Every term, VVC schedules are posted at www.vvc.edu.

Challenge to Matriculation Policies
Students may appeal any portion of the matriculation policies (other than prerequisites, etc.) by contacting the Dean/VP of Student Services. This includes claims that the process is unlawfully discriminatory or is being applied in such a manner. The Dean or Vice President will conduct a timely review and make such adjustments as are appropriate. The VP's office maintains a record of all complaints.

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

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

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

A common schedule is 15 college units per semester. Successful students usually spend about two hours per unit studying (reading the texts, reviewing class notes, preparing assignments, studying for tests) *per week*. With an average full-time course load, then, that means you'll spend approximately 45 hours per week both in and out of class.

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

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

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

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

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

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

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

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

Grade Appeal Process
According to the California Education code Section 76224 (a), California Code of Regulation Section 55025 (a), if mistake, fraud, bad faith, or incompetency is the reason for a grade dispute, the burden of proof lies with the student to produce facts that support this allegation. If such evidence exists, the student is to initiate an informal discussion with the specific faculty member and/or the Department Chair. If the matter is not resolved through this informal discussion, the student may obtain a Grade Appeal Form from the Office of Admissions and Records.

Final grades are issued after the close of each term. The student has two years following the semester in which the grade was recorded to request a change of grade or to request any corrections to the academic record. After the two-year limit, no changes may be made.

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

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

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

*Note: An "FW" grade is issued when a student has ceased participating in a course sometime after the last day to officially withdraw without receiving district authorization to withdraw from the course under extenuating circumstances.

OTHER SYMBOLS: **(NOT CALCULATED INTO GPA)**

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

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

Attendance
Students are expected to attend their classes regularly. **FAILURE TO ATTEND THE FIRST CLASS SESSION MAY RESULT IN THE STUDENT BEING DROPPED.**

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

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

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

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

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

Instructors must complete an incident report on all suspensions and transmit the form to the appropriate administrator.

Withdrawal From Class
It is the student's responsibility to initiate the withdrawal or drop procedure in a timely manner. Don't just not show up! Don't just disappear! Non-attendance does not drop the student from a class. A drop form must be completed and processed by the Admissions and Records office for a drop or withdrawal to be official. (**WebAdvisor can also be used for drops at certain times during the registration cycle**.)

Students may withdraw from classes during the first 20 percent of the class. In these situations, a "W" will not be recorded on a student's academic record.

Student- or instructor-initiated withdrawals beginning the third week and before the twelfth week of semester-length classes, or through the first 60 percent of class for other classes, will be recorded as a "W" on student transcripts. Students who do not withdraw by this time are grade obligated and cannot receive a "W."

In cases 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 (which must include any applicable documentation) are available in the Office of Admissions and Records in the Student Services Building. Approved petitions will result in a "W" recorded on academic records.

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

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

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

- At least 24 months must have elapsed between the end of the semester in which the most recent disregarded academic work was completed and the submissions of the petition.
- A student may request academic renewal only once.
- Only "D," "F," and "NC" grades can be disregarded through academic renewal.
- The student's permanent record is annotated to remove the "D" and/or "F" grades from the calculation of the GPA. However, all work remains legible on the permanent record to ensure a true and complete academic history.
- The student should be aware that other institutions may have different policies regarding academic renewal and may not honor this policy.

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

Course Repetition

Repetition of "Non-repeatable" Courses (most courses are "non-repeatable")

1. Substandard Grades (D, F, FW, NP or NC)

a. A course may be repeated when the grade earned was substandard (D, F, FW, NP or NC)

b. A student is allowed two recorded attempts to alleviate a substandard grade

c. Once a grade is recorded, any withdrawal (W) following the receipt of that grade counts as a repetition attempt.

d. Upon completion of a repeated course in which a substandard grade was earned, the most recent grade will be computed in the cumulative grade point average. The previous grades and credit shall be disregarded in the computation of grade point average.

e. A student can repeat a course one time without a petition to alleviate a substandard grade. A student must petition to repeat a course a second time. The final grade will be calculated in the cumulative grade point average.

2. Satisfactory Grades ("C" or better) Only under specific conditions can a course be repeated in which a satisfactory grade ("C" or better) was earned.

a. The student is repeating a course after a lapse of 5 or more years (must be requested and approved through the petition process).

b. The student is repeating the course to meet legally mandated training requirements as a condition of continued employment or the course is required for recertification in a technical or medical field (must be requested and approved through the petition process).

c. Special classes for students with disabilities can be repeated if appropriate as a reasonable accommodation for a disability (must be requested and approved through the petition process).

d. In special circumstances where the student needs to acquire knowledge or skills in order to progress to the next higher level course work (must be requested and approved through the petition process).

e. Changes have been made in course content since the course was completed (must be requested and approved through the petition process).

In the case of an approved petition to repeat a course for which a satisfactory grade was originally awarded, only the original (first) grade is calculated in the cumulative grade point average.

3. "W" Grades

a. A student can receive a maximum of two "W" grades for any course.

b. After two "W" grades in a class, a student must petition to repeat the class again.

Repetition of "Repeatable" Courses

1. Certain courses are repeatable for credit and are so designated in the college catalog.
2. Substandard grades for repeatable courses may be alleviated according to section 1 above. However, once the maximum number of enrollments has been reached, the student must petition to repeat the course again.
3. When a repeatable course is taken and a substandard grade is earned, a student may elect to have the satisfactory grade earned in the first subsequent repeat of the course used to alleviate the substandard grade. Forms for this election are in the *Admissions and Records Office.*

Annotating the permanent academic record is done in a manner that all work remains legible, insuring a true and complete academic history.

Nothing can conflict with Education Code Section 76224 pertaining to the finality of grades assigned by instructors, or with Title 5 or district procedures.

Pass/No Pass Option
Some courses may be taken on a "Pass" or "No Pass" basis, which is recorded as a "P" or "NP" on transcripts.

According to California regulations governing community colleges, a grade of "P" 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 "NP" can be a factor in progress probation and dismissal.

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

Students who plan to transfer should note that the number of P/NP 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 P/NP will be accepted for transfer credit there. Students should note that some graduate schools may not look favorably on P/NP grades.

Students who elect to take the P/NP grade option for a course should declare their intent by delivering a signed pass/no pass grade option form to the Office of Admissions and Records. The decision to take a course for P/NP may not be changed after 30 percent of the class term has passed.

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

Incomplete ("I") Grade
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.

Auditing
Auditing of classes is only permitted within these provisions:

1. Cost of audit is $15 per unit per semester.
2. Students enrolled in less than ten units will be charged the maximum audit fee allowed ($15 per unit per semester).
3. Students enrolled in ten or more semester units will be permitted to audit up to three units at no charge.
4. Students auditing courses cannot change enrollment status to receive credit for those courses.
5. Priority in class enrollment shall be given to students desiring to take courses for credit toward degree or certificate completion.
6. Students wishing to audit courses must meet course prerequisites and matriculation requirements.

(Education Code 72252.3)

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.

In evaluation of 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), students may participate in the Air Force Reserve Officer Training Corps (AFROTC) program. Aerospace Studies classes and Leadership

Laboratories are conducted each Friday on the main campus of CSU-San Bernardino.

Air Force ROTC is a college-level program designed to select and train highly qualified men and women to become commissioned Air Force officers. After graduation from college and completion of all Air Force ROTC requirements, cadets are commissioned as second lieutenants in the U.S. Air Force. Typical service is four years; however, service duration for pilots, navigators and nurses is longer. These individuals serve in a broad range of careers to include actual flying, engineering, administration and a host of other fields, depending on the individual's academic background.

To enter Air Force ROTC, an individual must have at least two years of college remaining, which may include graduate study. In addition, the individual must be a United States citizen prior to entering the last two years of the program, be available to pass an Air Force medical exam, be of high moral character and be in good academic standing in school. Entry into the last two years of the program is on a competitive basis.

Students are required to graduate with a bachelor's degree, in any academic major, and complete one of the two program options. AFTROTC offers 2, 3, and 4-year scholarships of up to $15,000, but scholarships are not required to participate in the program. AFROTC cadets under scholarship and all juniors and seniors receive a $300-$500 per month tax-free stipend, plus a $900 textbook allowance each year. Currently, CSU-SB does not charge for courses. No military commitment is incurred until entering the last two years of the program (Professional Officer Course) or accepting an AFROTC scholarship.

Classes consist of one hour of academics plus two hours of leadership laboratory for freshman and sophomores. Juniors and seniors will have three hours of academics plus two hours of leadership laboratory. The academic hours earned can normally be counted as elective credit toward graduation. All AFROTC classes and laboratories are held on Fridays to better accommodate students commuting from other colleges and universities.

For more information, contact the California State University, San Bernardino (CSU-SB) Department of Aerospace Studies (AFROTC) at (909) 537-5440. Details are also available here: afrotc.csusb.edu and http://DoSomethingAmazing.com.

Credit By Examination

As authorized by Section 55050 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 equal to the per unit enrollment fee will be charged for each administered exam, and is payable at the Bursar's Office.

Awarding credit by examination is subject to the following guidelines:

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

The student must be enrolled in at least one course in good standing, and must have successfully completed 12 semester units of credit at Victor Valley College with a GPA of 2.00 or better.

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

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

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

A student may challenge a course only once.

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

A maximum of 32 units earned through nontraditional means (CLEP, AP, DANTES, Department Exam, Military) may apply toward the Associate Degree with no more than 15 units permitted for college courses graded on a Pass/No Pass basis. This limitation does not apply to units earned at the community college of the Air Force (CCAF).

Credit by examination will be annotated "Pass" or "No Pass" or A-F, with unit value and a notation entered on the transcript that credit was earned via "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
The college grants credit for successful completion of Advanced Placement Program Examinations of the College Board for some AP exams. A maximum of 32 units may be awarded for students who attain scores of 3, 4, or 5.

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

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, or less, credit for AP exams than VVC. It is the student's responsibility to contact other schools to determine the acceptability of any credit earned by examination. Credit will be awarded upon completion of 12 units at Victor Valley College. See the Advanced Placement Credit chart at the end of this section.

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 VVC. 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, confirms, 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 over 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.

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
The Victor Valley College Tech Prep program is designed to help create pathways that lead to an associate or baccalaureate degree or a post-secondary certificate in a specific career filed. Students combine high school and ROP CTE classes, real-world experience, and/or college classes, to form a balanced and practical educational experience. Within this model students are challenged to meet rigorous academic standards and experience hands-on learning in articulated secondary CTE courses. For more information visit our website at:
http://www.vvc.edu/office/tech-prep/.

Petitions Committee
The Petitions Committee, which meets weekly when classes are in session, considers special requests from students for exemptions from certain academic, student, and college policies due to documented, extenuating circumstances. Typical requests include:

- To enroll in more than 18 units of course work during an academic semester, or more than 8 units during a summer or winter intersession.
- To drop classes after the "grade responsibility date" with a "W" grade.
- To repeat a course

Students who petition must have good reasons *and provide appropriate documents 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.

Petitions are available at the Admissions and Records Office.

Safety

WHAT CAN I DO TO PROTECT MYSELF?

- **B**e alert!
- **B**e concerned at all times for your safety and the safety of others.
- **I**mmediately report any suspicious activity and/or persons to the Campus Police.
- **W**alk and park your vehicle in lighted areas at night.
- **S**hare any safety concerns you have with your Campus Police Department.
- **K**now emergency numbers and locations of the nearest telephone.
- **R**eport all criminal activity you observe to the Campus Police Department immediately.

IMPORTANT CAMPUS TELEPHONE NUMBERS

EMERGENCY	911
CAMPUS POLICE (760) 245-4271	x2329
(after hours & weekends)	x2555
CAMPUS POLICE EMERGENCY	X2555

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

Victor Valley College follows a "zero tolerance" philosophy when it comes to any behavior or incident that disrupts the learning environment. Student conduct issues are handled in a fair, just manner. In general, student misconduct constitutes good cause for discipline, including but not limited to the removal, suspension or expulsion of a student. Due process for student conduct issues is fully explained in the Student Notification section of each term's Class Schedule. All students are expected to read and follow this important information. In addition, copies are also available in the Dean of Student Services Office.

Generally, VVC's jurisdiction is limited to conduct that occurs on college premises, or at official VVC off-campus activities, except as noted.

Prohibited Conduct On Campus

The following behavior is prohibited on college property or at college-sponsored or college-supervised functions**:**

- Disorderly, lewd, indecent, obscene or offensive conduct.
- Alcohol or drug use.
- Gambling.

A. Student Conduct Code - Rules and Regulations

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

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

1b. Acts of dishonesty, including, but not limited to the following:

a. Cheating, plagiarism, or other forms of academic dishonesty.
b. Furnishing false information to any Victor Valley College official, faculty member or office.
c. Forgery, alteration, or misuse of any VVC document, record or instrument of identification.
d. Tampering with the election of any Victor Valley College recognized student organization.

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

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

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

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

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

7. Hazing, defined as an act which endangers the mental or physical health or safety of a student or which destroys or removes public or private

property for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization.

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

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

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

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

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

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

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

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

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

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

18. Theft or other abuse of phones, electronic devices or computer time, including but not limited to:

    a. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
    b. Unauthorized transfer of a file (not educational related).
    c. Unauthorized use of another individual's identification and password.
    d. Unauthorized use of electronic devices in the classroom including but not limited to head phones, cellular phones and pagers.
    e. Use of computing facilities to interfere with the work of another student, faculty member or Victor Valley College staff official.
    f. Use of computing facilities to download or view material deemed to be lewd, indecent and/or obscene matter that is not educational related.
    g. Use of computing facilities to send obscene or abusive threatening messages.
    h. Use of computing facilities to interfere with the normal operation of Victor Valley College computing systems.

19. Abuse of the Student Conduct System, including but not limited to:

    a. Failure to obey the summons of the Student Conduct Hearing Committee or Victor Valley College official.
    b. Falsification, distortion, or misrepresentation of information.
    c. Disruption or interference with the orderly conduct of a judicial proceeding or Student Conduct Hearing Committee.
    d. Institution of a judicial proceeding or Student Conduct Hearing Committee knowingly without cause.
    e. Attempting to discourage an individual's proper participation in, or use of, the Victor Valley College judicial system.
    f. Attempting to influence the impartiality of a member of a judicial body prior to, and/or during the course of, the judicial proceeding or Student Conduct Hearing Committee.
    g. Failure to comply with the sanctions imposed under the Student Code of Conduct and/or Education Code.
    h. Influencing or attempting to influence another person to commit an abuse of the judicial system.

B. Other Campus Regulations

1. Only officially registered students are allowed to attend classes. Minors or other students who are

not registered or do not have permission to be in the class may not remain in the classroom.

2. Students are not permitted to eat or drink in classrooms.

3. Smoking is prohibited in all college buildings or within 20 feet of building entrance.

4. Card playing on Victor Valley College premises is prohibited except in a designated game or recreation area.

5. Animals, dogs (except trained service animals such As guide dogs for the visually impaired, or previously authorized animals) and other pets are not allowed on Victor Valley College premises.

6. Printed materials that are not class-related to be distributed must be approved for distribution by the Office of Student Activities.

7. Students must be fully attired, including shoes, While in the classroom or on Victor Valley College premises.

8. Library books and materials must be returned promptly.

9. Use of audio equipment on Victor Valley College premises is restricted to personal headphones or preapproved authorized activities.

10. Children must be under the supervision of parents at all times.

C. Violation of Law and Victor Valley College Discipline

1. If a student is charged only with an off-campus violation of federal, state, or local laws, but not with any other violation of this Code, disciplinary action may be taken and sanctions imposed for grave misconduct which demonstrated flagrant disregard for the Victor Valley College community. In such cases, no sanctions may be imposed unless the student has been found guilty in a court of law or has declined to contest such charges, although not actually admitting guilt (e.g., "no contest" or "nolo contendere").

2. Victor Valley College disciplinary proceedings may be instituted against a student charged with violation of a law which is also a violation of this Student Code; for example, if both violations result from the same factual situation, without regard to the pendency of civil litigation in court or criminal arrest and prosecution. Proceedings under this Student Code may be carried out prior to, simultaneously with, or following civil or criminal proceedings off-campus.

3. When a student is charged by federal, state or local authorities with a violation of law, Victor Valley College will not request or agree to special consideration for that individual because of his or her status as a student. Victor Valley College will cooperate fully with law enforcement and other agencies in the enforcement of criminal law on campus and in the conditions imposed by criminal courts for the rehabilitation of student violators.

D. Principle of Progressive Discipline

The campus follows a "progressive" discipline process. Complaint forms should be completed and forwarded to either the Coordinator of Student Services or the Coordinator of Student Discipline.Unless inappropriate conduct is egregious and/or requires intervention by law enforcement, the initial contact will result in a verbal warning. Infractions after an initial meeting may result in short or long-term suspension and/or expulsion.

The following are examples of student conduct which may require immediate law enforcement intervention: providing false information; harassment; sexual harassment; fighting narcotics possession, use, and/or sale, campus demonstrations; lewd behavior; breach of the peace; forging documents; threats; coercion; discrimination; hazing; issues with firearms/explosives; inciting disruptive behavior; indecent and/or obscene behavior; election tampering; physical abuse; intimidation; endangerment; theft or damage to property; failure to comply; issues related to dangerous / illicit chemicals; disorderly conduct.

E. Cheating and Plagiarism Defined

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

- Use of any unauthorized assistance in taking quizzes, tests, or examinations.

- Dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments, or acquisition, without permission, of tests or other academic material belonging to a member of the VVC faculty or staff.

- Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty as defined below.

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

F. Classroom Discipline

Instructors need to outline classroom rules and behavioral expectations on their syllabus. Examples may include a prohibition on the use of cell phones, the wearing of appropriate lab attire, etc. Faculty may suspend students from class for up to two consecutive class meetings for misconduct and/or class disruption. Instructors must complete an incident report on all suspensions and forward the form to the Dean of Student Services.

An instructor may assign a failing grade on a particular assignment or examination if the student was found to have plagiarized in preparing that assignment or cheated on a particular examination. An instructor cannot automatically fail a student for the entire course where the student is only known to have cheated or plagiarized with respect to one of several assignments that count toward the final grade. An instructor may not administratively drop a student for cheating or plagiarism. A student may only be involuntarily removed from a course due to excessive absences or as a result of a disciplinary action take pursuant to law or the student code of conduct.

ACADEMIC STANDARDS
Probation and Dismissal Policies
VVC has specific policies governing probation, dismissal and readmission which apply to all enrolled students.

LEVEL I – *PROBATION*

There are two forms of probation: *Academic* Probation and *Progress* Probation.

- A student is placed on Academic Probation when the student has:

  Attempted at least 12 units, and
  Earned a cumulative GPA below 2.00

- A student is placed on Progress Probation when the student has:

  Attempted a total of at least 12 units and, when 50 percent or more of the units attempted consist of "W," "I," "NC," and/or "NP" marks recorded on the transcript.

The student is notified of their probation status by a letter encouraging students to see a counselor and/or seek other support services (i.e. Guidance classes, tutoring, etc.) to help improve academic achievement.

Students may appeal probation status by a General Petition submitted to Admissions and Records.

Clearing Probation
Academic Probation - The student shall be cleared from Academic Probation when the student's cumulative grade point average is 2.0 or higher.

Progress Probation - The student shall be cleared from Progress Probation when the student's cumulative percentage of units with "W," "I," "NC," and/or "NP" drops below fifty percent.

LEVEL II – *SUBJECT TO DISMISSAL*

- **Academic Dismissal**
  Students who have been on academic probation are **"Subject to Dismissal"** at the ***end of the second consecutive semester*** of enrollment when their cumulative G.P.A. continues to be below 2.0. VVC notifies students of their "**Subject to Dismissal"** status ***requiring*** the student to see a counselor during the current term to complete an "Academic Success Contract" and lift the *Academic Hold*.

- **Progress Dismissal**
  Students who have been on progress probation are **"Subject to Dismissal"** at the ***end of the second consecutive semester*** of enrollment when 50 percent or more of the units attempted consist of "W," "I," "NC," and/or "NP." VVC notifies students of their **"Subject to Dismissal"** status ***requiring*** the student to see a counselor during the current term to complete an "Academic Success Contract" and lift the *Academic Hold*.

Students may appeal dismissal status by a General Petition submitted to Admissions and Records.

LEVEL III – *DISMISSAL*

Students who do not meet academic or progress standards for three consecutive semesters of enrollment ***will be dismissed from VVC for one semester***. A letter will be sent informing the student of his/her dismissal status.

- **Readmission after Dismissal**
  The student will be required to complete a "Petition for Reinstatement" with appropriate documentation and a copy of their prior Academic Success Contract(s) submitted to Admissions and Records. A reinstated student will be required to meet with a counselor prior to registration to develop a current "Academic Success Contract" until performance has cleared Probationary/Dismissal status.

LEVEL IV – *SUBSEQUENT DISMISSAL*

Students who do not meet academic or progress standards after Level III reinstatement and/or have not fulfilled the prior "Academic Success Contract(s)" ***will be dismissed from VVC for two semesters***. A letter will be sent informing the student of his/her dismissal status.

- **Readmission after Dismissal**
  The student will be required to complete a "Petition for Reinstatement" with appropriate documentation and

provide a copy of ALL prior Academic Success Contract(s) submitted to Admissions and Records. A reinstated student will be required to meet with a counselor prior to registration to develop a current "Academic Success Contract" until performance has cleared Probationary/Dismissal status. Reinstated students may be dismissed for two semesters or more if performance does not improve.

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

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

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

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

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

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

b. The Step 3 decision is clearly unreasonable or arbitrary.

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

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

Advanced Placement Credit

AP Test Name	Minimum Score	VVC Equivalent Course	VVC Units Awarded	VVC Gen. Ed. Area/ Units	CSU Cert. Area	IGETC Cert. Area
Art History	3, 4, or 5	Art 101	3	Humanities/3	C1 or C2	3A or 3B
Art (Studio)						
-General Portfolio/ 2 Dimension	3, 4, or 5	Art 112	3	Humanities/3		
-Drawing Portfolio	3, 4, or 5	Art 125	3	Humanities/3		
-3 Dim. Portfolio	3, 4, or 5	Art 113	3	Humanities/3		
Biology	3, 4, or 5	**Biol 100	4	Natural Sci./4	B2 + B3	5B w/lab
Chemistry	3, 4, or 5	Chem 100	4	Natural Sci./4	B1 + B3	5A w/lab
Computer Science						
-A Exam	4 or 5	CIS 201	4			
-AB Exam	3 or 4	CIS 201	4			
	5	CIS 201+202	8			
Economics						
-Macro	3, 4, or 5	Econ 101	3	Social/Beh./3	D2	4
-Micro	3, 4, or 5	Econ 102	3	Social/Beh./3	D2	4
English						
-Language/Comp.	3, 4, or 5	Engl 101	4	Language/4	A2	1A
-Literature/Comp.	3	Engl 101	4	Language/4	A2	1A or 3B
	4 or 5	Engl 101+102	7	Language + Humanities/7	A2+C2	1A or 3B
Environmental Science	3, 4, or 5	Biol 114	3	Natural Sci./3	B2	5A w/lab
French						
-Language OR Lit. Test	3	Fren 101	5	Humanities/5	C2	LOTE + 3B
	4 or 5	Fren 101+102	10	Humanities/10	C2	LOTE + 3B
German						
-Language OR Lit. Test	3	Germ 101	5	Humanities/5	C2	LOTE + 3B
	4 or 5	Germ 101+102	10	Humanities/10	C2	LOTE + 3B
Government and Politics						
-Comparative	4 or 5	Pols 112	3	Social/Beh./3	*D8	4
-U. S.	4 or 5	Pols 102	3	Social/Beh./3	*D8 + US-2	4 + US-2
History						
-World	3, 4, or 5	Hist 104	3	Social/Beh. or Humanities/3	C2 or D6	3B or 4
-U. S.	3, 4, or 5	Hist 117+118	6	Social/Beh. or Humanities/6	C2 or D6 (+US-1)	3B or 4 (+US-1)
-European	3, 4, or 5	N/A	N/A	Social/Beh. or Humanities/3	C2 or D6	3B or 4

ADVANCED PLACEMENT CREDIT

Human Geography	3, 4, or 5	Geog 102	3	Social/Beh./3	D5	4
Language and Culture						
Chinese, Italian or Japanese	3, 4, or 5	Satisfies Humanities GE	3	Humanities/3	C2	LOTE + 3B
AP Test Name	**Minimum Score**	**VVC Equivalent Course**	**VVC Units Awarded**	**VVC Gen. Ed. Area/ Units**	**CSU Cert. Area**	**IGETC Cert. Area**
Latin						
-Vergil, Catallus or Lit.	3, 4, or 5	Satisfies Humanities GE	3	Humanities/3	C2	LOTE + 3B (no IGETC for Catallus)
Math						
-Calculus AB Test	3, 4, or 5	Math 226	5	Math/5	B4	2
-Calculus BC Test	3	Math 226	5	Math/5	B4	2
	4 or 5	Math 226+227	10	Math/10	B4	2
Music						
-Listening and Lit.	3, 4, or 5	Musc 100	3	Humanities/3	C1	(no IGETC for music)
Physics						
-Exam B	3, 4, or 5	Phys 100	4	Natural Sci./4	B1 +B3	5A w/lab
-Exam C (Mech.)	4 or 5	Phys 221	4	Natural Sci./4	*B1 +B3	5A w/lab
-Exam C (Elec.+ Mag.)	3 or 4	Satisfies Nat. Science GE	3	Natural Sci./3	B1 +B3	5A w/lab
	5	Phys 203	4	Natural Sci./4		
Psychology	4 or 5	Psyc 101	3	Social/Beh./3	*D9	4
Spanish						
-Language OR Lit.	3	Span 101	5	Humanities/5	C2	LOTE + 3B
	4 or 5	Span 101+102	10	Humanities/10	C2	LOTE + 3B
Statistics	3, 4, or 5	Math 120	4	Math/4	B4	2

*CSU Breadth Area can be certified by a passing score on this test of 3, even though a higher score is required for the VVC course equivalency.

**AP Test equivalent course will not be used in lieu of published course prerequisites for Bio 211, 221 nor 231. An appropriate college course must be completed prior to admission into these advanced biology courses.

Notes: Universities to which students transfer will apply AP test credit according to their internal policies, which may be different from VVC's policy. Contact individual universities for their local AP credit policies. Visit VVC's Transfer Center or Counseling Department for IGETC or CSU certification information or to find out more about how AP test credit will apply towards these certification patterns, as well as the VVC general education pattern.

LOTE: These courses will apply towards certification in the Language Other Than English area on the IGETC.

Last Updated 5/6/2010
Senate Approval Date: 12/3/2009

FINANCING YOUR EDUCATION

INVESTING IN YOUR EDUCATION

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

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

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

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

Eligibility and Qualifications

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

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

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. Visit www.fafsa.ed.gov for the FAFSA application. Applying on time is critical.

You may begin the FAFSA application process any time 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 or visit us on the Web at www.vvc.edu. We offer workshops to assist you.

TYPES OF FINANCIAL AID

Board of Governors Fee Waiver

This waiver is available to residents of California 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 and discounted parking.

State Grants

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

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

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

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

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

How to Apply for State Grants

To apply for a Cal Grant, complete the Free Application for Federal Student Aid (FAFSA) and file it between January 1 and the Cal Grant March 2 deadlines. Also

complete any additional application requirements such as providing the Student Aid Commission with a verified grade point average or test scores. Community college students have until September 2 to apply for a Cal Grant B award, but earlier application is advised.

Cal Grant B Entitlement Awards

Award Description:

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

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

General Cal Grant Eligibility Requirements

All Cal Grant applicants must:

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

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 $200 per year based upon the availability of funds. This grant is awarded to students who have a great financial need.

Direct Loans

Federal Family Education Loan Program allows students to borrow low interest loans to assist with educational and living expenses. Please inquire at the Financial Aid Office for more information.

Return of Title IV Funds

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

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

Federal Work Study Program (FWS)

FWS is a form of federally funded financial aid which provides paid work experience as part of the financial aid package. If interested, please search and apply for jobs online using the FWS link from the Financial Aid Office's website.

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.

Veteran's Benefits

The Veterans Office is located in Building 52, within the Financial Aid Department.

Veterans Benefits: Currently we process documentation for Chapters 30 (Active Duty), 31 (Disabled Veterans), 33 (New Post-911 GI Bill, Active Duty Reserves), 34 (Vietnam Era), 35 (Dependents), 1606, and 1607 (Reserves). Please visit the GI Bill website at www.gibill.va.gov for information on your specific eligibility.

Veterans and eligible dependents* please visit http://vabenefits.vba.va.gov/vonapp/main.asp to complete an application for GI Bill benefits. If you are already approved for benefits, you should bring a copy of your GI Bill Benefits Award Letter to the Financial Aid Office (FAO) and let us know that you are interested in using your benefits at Victor Valley College.

GI Bill students must inform the FAO once they have enrolled each semester so they can be verified with the VA (certifications are not automatic).

The minimum grade considered "successful completion" of a course is a "D" for non-transfer or non-prerequisite classes, or a "C" for transfer or prerequisite classes, as outlined in the VVC Catalog. Students cannot receive benefits for repeating a course that was previously completed successfully.

Students assume liability for overpayments of benefits; to avoid this, report any adjustments to your class load to the FAO.

The VA requires that GI Bill students have a current GI Bill Education plan, prepared by a VVC Counselor, in their VA file. New GI Bill students have until the end of their second semester to get their educational plan. Students who are changing their school of certification have one semester before the ed plan is required. The ed plan must show the student's declared program and have all prior credits evaluated. When you make your appointment with a VVC counselor, please indicate that you are a GI Bill student, and bring to your meeting copies of any previous college transcripts.

GI Bill students must follow the Financial Aid Satisfactory Academic Progress (SAP) Policy. This policy requires that students maintain at least a 2.0 cumulative grade point average **and** complete at least 67% of all units attempted. Please see SAP for further information.

Active duty military may be eligible for Tuition Assistance (TA) from their respective branch of service. Contact your base/post education office for TA forms and additional information.

*Dependents of veterans deemed 100% disabled (or deceased) from a service-connected cause, may be eligible for GI Bill benefits under Chapter 35. Dependents of veterans with a 0% or greater disability from the VA may be eligible for a tuition and fee waiver. Parents should contact the County VA Office for further details and how to apply.

If you have questions or need assistance, please visit our website at www.vvc.edu/offices/financial-aid/ for contact information.

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 print out an online application, available on the VVC website Financial Aid link and follow the provided instructions.

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 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).**

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. Fees listed are subject to change.

Enrollment Fee

Enrollment fees for California residents are set by the California Legislature for all of the state community colleges. Refer to the current schedule of classes for enrollment fees.

Enrollment and Other Fee Refunds

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

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

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

Student Center fees are refunded for students withdrawing from classes prior to the first day of the semester.

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

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

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

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

Nonresident Tuition

Students who are not considered residents of California pay all regular in-state fees plus a non-resident tuition fee, charged on the number of units taken. Refer to the current Schedule of Classes for more on charges.

AB 540 Nonresident Tuition Waiver

Any student other than a nonimmigrant alien, who meets all of the following requirements, shall be exempt for paying nonresident tuition at the California Community Colleges, the California State University and the University of California.

- The student must have attended a high school (public or private) in California for three or more years.
- The student must have graduated from a California high school or attained the equivalency in California prior to the start of the term.
- An alien student who is without lawful immigration status must file an affidavit with the college or university stating that he or she has filed an application to legalize his or her immigration status, or will file an application as soon as he or she is eligible to do so.
- Students eligible for this exemption who are transferring to another California public college or university must submit a new request (and documentation if required) to each college under consideration.
- Nonresident students meeting the criteria will be exempted from the payment of nonresident tuition, but they WILL NOT be classified as California residents. Therefore, students WILL NOT be eligible for any state supported financial aid such as the Board of Governors Waiver, CalGrant, etc.
- AB540 does not provide student financial eligibility for undocumented students. These students remain ineligible for state and federal financial aid.
- This exemption IS NOT available to students who are absent from California and taking distance education classes from California community colleges.

Please see Admission and Records for the Exemption Request form.

Parking Fees/ASB Fees

Parking lots located around the campus are provided for students displaying valid parking permits.

Semester permits are available from the Bursar. The parking fee is $40 per vehicle, per semester, for the fall and spring semesters. The parking fee for Financial Aid students is $20 per vehicle per semester. Motorcycle permits are $5 in addition to the purchase of a vehicle permit. The parking fee for Summer/Winter is $20 per vehicle. Parking fees are subject to change. Permits are required Monday through Saturday.

Alternative Parking Options

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

1. *Daily parking permits* are available in vending machines located on campus (machines accept quarters only).
2. *Parking meters* are located in Lot #6. They are intended to meet short-term parking needs (meters accept quarters only). Student permits are not valid in metered stalls.

Student Center Fee

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

Student Representation Fee

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

Textbooks and Small Supplies

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

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

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

Textbooks and supplies may be purchased at the college bookstore, located in the Student Activities Center (SAC) or purchased online at www.vvcRams.com.

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.

Textbook rentals are now available at http://vvcrams.bookrenterstore.com/. You can rent your textbooks for a week or a whole semester!

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

Fee Review

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

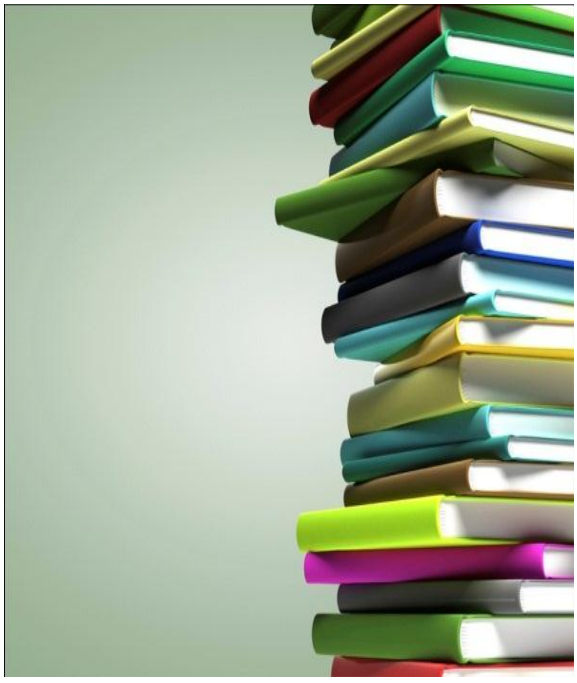
Refund Policies

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

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

Refer to the Class Schedule for specific tuition refund policies.

Refunds resulting from class cancellations or class rescheduling by the District are refunded automatically.



MOVING ON

REQUIREMENTS FOR CERTIFICATES, DEGREES AND UNIVERSITY TRANSFER

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

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

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

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

Course Numbering System

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

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

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

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

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

I. OCCUPATIONAL CERTIFICATES

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

In this section, you'll find listed the most common areas of study that people are interested in—whether VVC offers a program in that field or not. If we don't have a particular program, at least you'll probably find information about some of the institutions that do. Under each area of study, VVC may offer a **Certificate of Achievement (CA)** which is a sequence of courses of 18 semester units or more and is awarded to students who successfully complete all the requirements for a defined program of study approved by the Victor Valley Community College Board of Trustees as well as by the Chancellor's Office for California Community Colleges. Certificates of Achievement are recorded on students' official transcripts.

Also, VVC may offer a **Certificate of Career Preparation (CP)** which is a sequence of courses fewer than 18 units and is awarded to students who successfully complete all the requirements for a defined program of study approved by the Victor Valley Community College Board of Trustees. Students who earn a Certificate of Career Preparation are presented with a paper award but the college does not record the award on students' transcripts.

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

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

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

II. REQUIREMENTS FOR GRADUATION WITH AN ASSOCIATE'S DEGREE

Graduation generally requires the equivalent of two to three 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 first pages of this catalog.

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 "Associate Degree Graduation Requirements" form that you will find in this Catalog a few pages from now, which is a summary of the requirements for the associate's degree at VVC. This listing is also available as a worksheet at the front desk in Counseling (ask for the "green sheet").

General Requirements (Section A)

This section is a detailed listing of the requirements for the Associate's Degree.

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

Courses for Your Major (Section B)

Majors are listed in the first few pages of this Catalog. At least 18 units are required for a VVC major; each course in the major must be completed with a "C" or higher. More information about each area can be found in the departmental listing in Section VIII, "Programs of Study."

General Education (GE) Requirements (Section C)

GE Philosophy

The General Education pattern at Victor Valley College is a comprehensive and integrated introduction to broadly applicable principles, concepts, and methods of the humanities, natural sciences, communication, mathematics, and social studies. The awarding of an Associate Degree by VVC is intended to represent more than an accumulation of units. It is to symbolize a successful attempt on the part of the student to complete a series of learning experiences designed to increase knowledge, develop competencies, enhance insights, and encourage lifelong learning.

Student Learning Outcomes

Students who complete the General Education requirements will attain the knowledge and skills listed below for each category.

Category I: Natural Sciences

Define and discuss the basic principles, concepts, and theories of the natural sciences.

Explain and apply the methods scientists use to explore natural phenomena, including observation, hypothesis, measurement, experimentation, evaluation of evidence, and quantitative analysis.

Critically evaluate the limitation, sustainability and social impact of scientific study.

Category II: Social and Behavioral Sciences

Discuss and apply the central theoretical concepts and methods of contemporary social or behavioral science.

Critically analyze individual or social behavior in a variety of contexts, including contemporary, historical, Western, non-Western, and minority.

Identify and apply the principles of effective citizenship, including civility, respect for diversity, and exercise of social responsibilities.

Explore, identify, and evaluate the factors that have shaped our global community to gain an understanding of the individual's roles in relationship to other individuals and systems on a global level.

Category III: Humanities

Identify, discuss, and evaluate works of major philosophical, historical, literary, artistic, and/or cultural importance.

Critically analyze conceptions of human meaning and forms of self-expression and self-understanding that represent the perspectives of different periods of time, cultures, social and ethnic groups.

Reason effectively about values, including the application of ethical principles and ethical analysis of proposed solutions to social problems.

Category IV: Language & Rationality

A. English Composition

Compose a variety of essays and revise these compositions for clarity, organization, and mechanical and grammatical correctness.

Summarize, synthesize, and paraphrase various types of source materials.

Define, access, and evaluate research information from a variety of sources and using a variety of tools.

Prepare documented research papers using a variety of resource material and MLA citation/documentation.

B. Communication & Analytical Thinking

Create and deliver oral presentations that are suitable to the topic, purpose, and audience.

Communicate orally with civility and attention to diversity using a wide range of media and in a variety of settings.

Actively listen with literal and critical comprehension of ideas and information transmitted in oral language.

Category V: Mathematics
Communicate mathematical concepts formally, using appropriate notation and terminology, and informally by using everyday language.

Effectively organize, present, interpret and summarize quantitative information using symbolic, numerical and graphical methods.

Solve problems by evaluating the available information and type of problem, choosing an appropriate technique, applying the technique, and verifying whether or not the solution is reasonable.

Use mathematical concepts and methods to understand, analyze, and express applications in quantitative terms.

Category VI: Information Competency*
Determine the nature and extent of information needed and identify a variety of types of formats of potential sources of information.

Utilize research tools and/or the Internet to effectively locate and retrieve information resources.

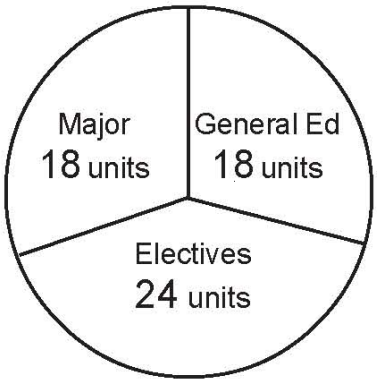
Analyze and evaluate information using the criteria of credibility, relevance, authority, currency, and point of view or bias.

Organize and communicate information for a specific purpose and in accordance with legal and academic standards.

*Demonstrated by successful completion of English 101 or an Information Competency project.

Requirements
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.)

Proficiencies
Minimum proficiencies in English, Reading, Math, and Information Competency are met by completing the GE requirements. New 2011-2012 are American Institutions and Global Citizenship.



Distribution of units for the AA/AS Degree

Physical Education (PE) (Section D)

At least one unit in an activity or non-activity (lecture) course in Physical Education is required of all students who wish to earn the associate's degree. A maximum of 4 units of PE activity courses will count toward the degree (except for PEDA units in the Fine Arts major, which have no limitation). 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. Health 102, which may be used to satisfy GE Category I, and PE 103, used for GE Category III, may simultaneously satisfy the PE requirement. Courses listed under Athletics do not satisfy the requirement.

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.

Catalog Rights for Associate Degree, Certificate, or Transfer Requirements

The term "catalog rights" refers to the requirements, rules and regulations found in the Victor Valley College Catalog for a specific academic year defining specific requirements, as established in the catalog, which the student must satisfy to qualify for an associate degree, a certificate, or transfer. An absence of not more than two years due to an approved educational leave, or to attend another college or university, is not considered an interruption in attendance. Catalog rights apply for a maximum of six years prior to graduation.

Continuous Enrollment

Degree, certificate, and/or transfer requirements may change from one catalog year to the next. Students have the right to complete requirements under the terms of any catalogs that are published while in continuous enrollment. Continuous enrollment is defined as enrollment in at least one transcripted, credit course in at least one semester, Fall or Spring, during an academic year.

Students who initially enroll or re-enroll during summer session may choose to have catalog rights for the previous academic year.

Students who do not meet the **continuous enrollment** condition specified above, and who re-enroll in the college, will fall under the catalog requirements for the academic year when re-enrolling in VVC. Consequences of not being continuously enrolled will include loss of priority registration. Possible additional consequences may include:

- Changes in requirements for a certificate
- Changes in requirements for an Associate Degree
- Discontinuation of programs
- Changes in admission and/or general education requirements for transfer to a University.

Application for Graduation

Graduation ceremonies are held once a year in June. The graduating student is responsible for filing with the Office of Admissions an application for graduation, which includes submitting all transcripts from other colleges and all other documents verifying completion of any requirements. Late applicants will be evaluated for the following graduation date. Students applying for an Associate Degree or Certificate do not have to be currently enrolled. Students must apply within three years from the date all requirements are satisfied. Exceptions, for example, medical reasons or military service, should be submitted in writing including supporting documentation, to the Director of Admissions and Records

Deadlines are as follows:

The deadline to apply for graduation or for an occupational certificate is the last day of the term *prior* to the term in which you expect to graduate. Apply by the end of Fall semester to graduate in Spring. Apply by the end of Spring semester to graduate in Summer. Apply by the end of the Summer term to graduate in Fall. There is no graduation in Winter. You may download the graduation application at http://www.vvc.edu/forms/.

Second and Subsequent Degrees

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

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

2. Courses used in the major for one degree may not be used in the major for a subsequent degree.

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

III.TRANSFERRING TO A FOUR-YEAR COLLEGE OR UNIVERSITY

VVC transfers about 650 students annually to campuses of the University of California, California State University, and various private schools. These students traditionally do as well as or better than students who began as freshmen at the four-year college.

Students can generally complete the first two years' worth of a four-year bachelor's degree at a community college, like VVC, while simultaneously earning an associate's degree. For an overview of the courses you need to take here in order to satisfy requirements at your intended transfer institution, find your major in this catalog. Find out more specific information about transferring at: www.assist.org. Consult with a counselor, with VVC's Transfer Center and, of course, with the transfer institution itself.

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 ten campuses statewide (nine 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 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. Find more information on the CSU system later in this chapter.

■ 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. Visit the Transfer Center for more information.

First ASB President, Ben Giffin

VVC ASSOCIATE DEGREE GRADUATION REQUIREMENTS 2011-2012

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

1. Complete 60 degree-applicable units (courses numbered 50 and above), 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.
4. Complete an application for graduation before the deadline. Download the application from http://www.vvc.edu/forms/
5. Have official transcripts from other colleges attended and/or Advanced Placement scores sent to VVC. Students are responsible for furnishing official transcripts. Final evaluation and acceptance of transfer courses taken at other accredited colleges will be determined by the Registrar's Office at the time the student's graduation application is evaluated. VVC may not accept credits from all institutions of higher education.
6. Minimum proficiencies in English, Reading, Math, and Information Competency are met by completing the general education requirements.
7. **NEW THIS YEAR:** American Institutions (see GE Category II) and Global Citizenship requirements (complete at least one underlined course in Global Citizenship within GE Category II or III).

A COURSE MAY SATISFY ONLY ONE CATEGORY, EXCEPT HLTH 102 AND PE 103.

B. MAJOR *All courses in the major must be completed with a "C" or better*.....minimum 18 units

C. GENERAL EDUCATION.....minimum 21 units

Category I: Natural Sciences.....minimum 3 units

ANTH 101, 101L; **ASTR** 101; **BIOL** 100/H100, 104, 107, 109, 114, 118, 121, 201, 202, 203, 211, 212, 221, 231, 232; **CHEM** 100/H100, 114, 201, 202, 206/H206, 207/H207, 255, 281, 282; **GEOG** 101, 101L, 120; **GEOL** 101, 102, 103, 110; **HLTH** 102; **OCEA** 101; **PSCI** 101, 114, 115; **PHYS** 100, 201, 202, 203, 204/H204, 221, 222

Category II: Social and Behavioral Sciences *Complete one from **Group a**. and one from **Group b.*** .....minimum 6 units

a. **AGNR** 175; **AJ** 101; **ANTH** 101, 102, 103, 105, 106; **CHDV** 100, 106; **CMST** 105 (Intercultural); **ECON** 101, 102; **GEOG** 101, 102, 103, 104; **GUID** 105*; **HIST** 103, 104, 115/H115, 117/H117, 118/H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; **PHIL** 114*; **POLS** 101, 102/H102, 103, 104, 110, 111, 112, 113, 114*; **PSYC** 101/H101, 103, 105*, 110/H110, 111, 116, 121, 125, 130, 133, 204, 213; **RLST** 105, 106, 110, 113, 115; **SOC** 101, 102, 103, 107

b. **American Institutions** **HIST** 115/H115, 117/H117, 118/H118; **POLS** 102/H102, 103
(Note: **POLS** 102/H102 *and* either **HIST** 117/H117 or **HIST** 118/H118 satisfy CSU's US Constitution and American Ideals requirements)

Category III: Humanities.....minimum 3 units

ANTH 106; **ART 101**, **102**, 103, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 150; **CMST** 105 (Intercultural); **ENGL** 102/H102, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 233, 235, 240, 241, 245, 246, 247; **HIST** 103, 104, 115/H115, 117/H117, 118/H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; **MUSC** 100, 101, 102, 103, 115, 116, 117, 118, 131, 202, 204; **PHIL** 101, 108, 114*, 117, 120, 121; **PE** 103 (History of Dance); **POLS** 114*; **RLST** 101, 105, 106, 110, 111, 115, 117; **TA** 101, 102, 104, 107, 110, 116*
Languages: **CMST** (ASL) 122, 123, 124, 125; **FREN** 101, 102, 103, 104; **GERM** 101, 102, 103, 104;
LATN 101, 102; **SPAN** 101, 101A, 101B, 102, 103, 104

Category IV: Language & Rationality *Complete one course from **Group a**. and one from **Group b.*** .....minimum 6 units

Note: Courses in Category IV must be completed with grade of "C" or better.

a. English Composition
ENGL 101/H101
If you took English Composition at another college, you must complete the Info Competency assessment given at the VVC Library.

b. Communication & Analytical Thinking
ENGL 102/H102, 104/H104; **PHIL** 109, 207*; **RLST** 207*; **CMST** 106, 107, 108, 109

Category V: Mathematics *Note: Course in Category V must be completed with grade of "C" or better.*.....minimum 3 units

MATH 90, 104, 105/H105, 119, 120/H120, 132, 226, 227, 228, 231, 270

D. PHYSICAL EDUCATION .....*minimum one course required; maximum four units of PE activities counted, except Fine Arts majors*

Any activity or non-activity (lecture) PE course of 1 unit or more will fulfill this requirement. Completion of military basic training fulfills this requirement. Health 102 (Category I) or PE 103 (Category III) can simultaneously satisfy the PE requirement. Athletics courses *are not* used, except ALDH/PE 141.

E. ELECTIVES … Degree-applicable courses that have not been used to fulfill other requirements above, which bring the total to 60 units.

Competencies Satisfied: ❑Global Citizenship ❑American Institutions ❑Information Competency

*Cross-listed courses: **GUID** 105 and **PSYC** 105 are the same course, as are **ENGL** 116 and **TA** 116; **PHIL** 207 and **RLST** 207; **PHIL** 114 and **POLS** 114. 5/11/11

VVC ASSOCIATE DEGREE GRADUATION REQUIREMENTS

Victor Valley College Associate Degree Majors

Associate in Science (A.S.) degrees are awarded in **Math/Science** and various technical areas;
Associate in Arts (A.A.) degrees are awarded in the areas of **Liberal Arts** and **Fine Arts**.

All majors require at least 18 units; some have specific course requirements.
Courses numbered 138 (e.g., AUTO 138) only apply as electives, not in a major.

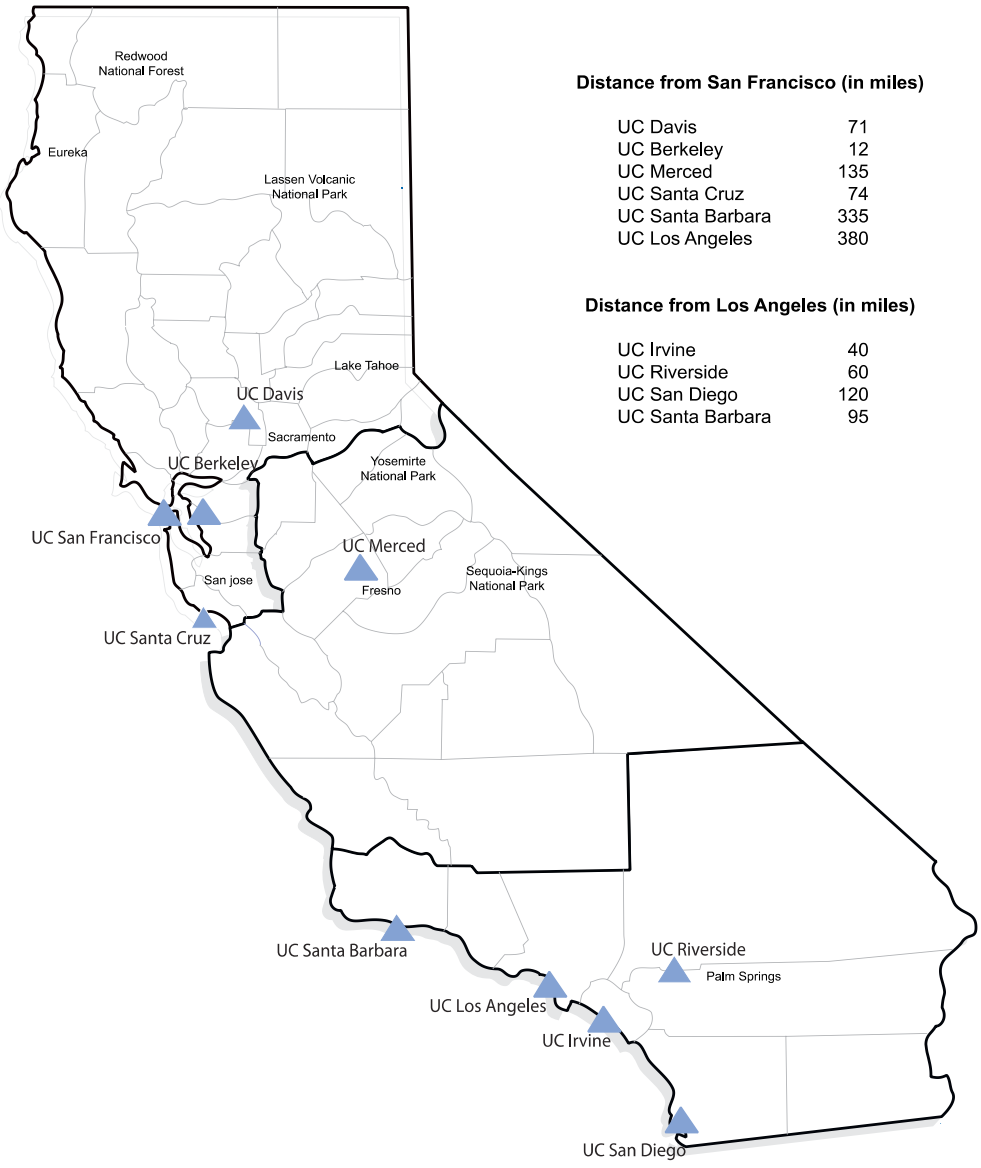
Administration of Justice, A.S.
Agriculture and Natural Resources, A.S.
Automotive Technology, A.S.
Business, A.S.
Business Administration, A.S.
Business Education Technologies, A.S.
Business Real Estate and Escrow, A.S.
Child Development, A.S. *
Computer Information Systems, A.S.
Computer Integrated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

* Requires specific courses and more than 18 units to fulfill major. See major for more information.
\+ Requires application and admission to the program.

To earn a second Associate Degree, the General Education courses stay the same, but you must complete 18 units in the new major, paying attention to any specific requirements for that major.

Tip: To transfer to a university for a Bachelor's Degree, choose courses for your Associate's Degree that simultaneously satisfy your university's lower division requirements. To transfer to the University of California (UC) or to the California State University (CSU), you will most likely want to complete the Intersegmental General Education Transfer Curriculum (IGETC) or, for CSU only, the General Education Requirements for Transfer Certification (CSUGE), as part of your Associate's Degree. Visit the Transfer Center and www.assist.org for more information.

The University of California
10 campuses



Distance from San Francisco (in miles)

UC Davis	71
UC Berkeley	12
UC Merced	135
UC Santa Cruz	74
UC Santa Barbara	335
UC Los Angeles	380

Distance from Los Angeles (in miles)

UC Irvine	40
UC Riverside	60
UC San Diego	120
UC Santa Barbara	95

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 complete at least 60 *transferable* units with at least a 2.4 minimum GPA at VVC, including those required in your major and those needed for completion of the general education requirements.

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

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

Guaranteed Transfer to UCR

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

The Intersegmental General Education Transfer Curriculum (IGETC)

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

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

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

■ Certification

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

■ 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 nor UC San Diego's Revelle or Roosevelt Colleges. It is also not recommended for transfer into majors requiring extensive lower-division preparation, such as engineering, biology, chemistry, and others. Students in these programs should follow the general education pattern of the specific campus they plan to attend. Visit the Transfer Center or see a transfer counselor for thorough planning.

Transferring with Fewer Than 60 Units

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

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

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

Planning to Transfer to UC or CSU?

visit

www.assist.org

Your official source for UC and CSU transfer information.
Visit www.universityofcalifornia.edu/admissions for online undergraduate admissions information and applications for U.C.

IGETC VICTOR VALLEY COLLEGE 2011-2012
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

Student's Name_____ **Social Security #**_____ **Birthdate**_____
Last First Middle Month Day Year

For information on preparing for your major, visit www.assist.org

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 campus which they plan to attend. Visit assist.org for more information.

CERTIFICATION: All areas of the IGETC should be certified prior to transfer. Partial certification may be awarded if all but two (2) courses in any areas except Group 1 and 2 are completed. 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.

Legend: C = Units Completed IP = Units In Progress N = Units Needed H = Honors Course

AREA 1 - ENGLISH COMMUNICATION **CSU**: Three courses required, one from Group 1A, one from Group 1B, and one from Group 1C. **UC**: Two courses required, one from Group 1A and one from Group1B.	C	IP	N
Group 1A: ENGLISH COMPOSITION (Choose one course, 3 semester units minimum.) ENGL 101/H101 Course from Other College:_____ Advanced Placement_____ (Test Name and Score)			
Group 1B: CRITICAL THINKING AND ENGLISH COMPOSITION (Choose one course, 3 semester units minimum.) ENGL 104/H104; PHIL 207*, RLST 207* Course(s) from Other College:_____			
Group 1C: ORAL COMMUNICATION - CSU requirement only (Choose one course, 3 semester units minimum.) CMST 106, 108, 109 Course from Other College:_____			

AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING Choose one course, 3 semester units minimum.			
MATH 105/H105, 119, 120/H120, 132, 226, 227, 228, 231, 270 Course from Other College:_____ Advanced Placement_____ (Test Name and Score)			

AREA 3 - ARTS AND HUMANITIES Three courses required, with at least one from Group 3A and one from Group 3B, 9 semester units minimum.			
Group 3A: ARTS ART 101, 102, 104, 105, 106, 107, 108; ENGL 116*; MUSC 100, 101, 102, 103, 115, 116, 117, 118, 202, 204; PE 103 (History of Dance); TA 101, 102, 116* Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score)			
Group 3B: HUMANITIES ANTH 106; ENGL 102/H102, 162, 220, 225, 230, 231, 232, 233, 240, 241, 245, 246, 247; FREN 103, 104; GERM 103, 104; HIST 103, 104, 117/H117, 118/H118, 119, 120, 121, 124, 125, 130, 131, 135, 150, 153, 155, 157; PHIL 101, 108, 114*, 117, 120, 121; RLST 101, 105, 106, 110, 111, 115, 117; POLS 114*; SPAN 103, 104; CMST 105 (Intercultural), 124 (ASL), 125 (ASL) Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score)			
Group 3: One additional course from any of the above courses listed under 3A or 3B Course(s) from Other College:_____ Advanced Placement_____ (Test Name and Score)			

*Cross-listed courses are the same course listed under different departments: ENGL 116 = TA 116; PHIL 114 = POLS 114; PHIL 207 = RLST 207.

Legend: C = Units Completed IP = Units In Progress N = Units Needed H = Honors Course L = Lab

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES

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

C	IP	N

AGNR 175; ANTH 101, 102, 103, 105, 106; CHDV 106; CMST 105 (Intercultural); ECON 101, 102; GEOG 102, 104; HIST 103, 104, 115, 117/H117, 118/H118, 120, 121, 124, 125, 127, 130, 131, 155; PHIL 114*; POLS 101, 102, 110, 111, 112, 113, 114*; PSYC 101/H101, 110/H110, 111, 116, 121, 204, 213; RLST 113, 115; SOC 101, 102, 107

Course(s) from Other College:_____ Advanced Placement_____
Test Name and Score

No credit for PSYC 110 if taken after 111, 116 or 130. PSYC 110, 111, 116 and 130 combined: maximum credit, three courses.
**Cross-listed courses: Phil 114 = Pols 114*

AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES

One course from Group 5A and one from Group 5B, 7 semester units minimum. At least one course must include a laboratory, indicated by (L).

Group 5A: PHYSICAL SCIENCES

ASTR 101; CHEM 100(L)/H100(L), 114, 201(L), 202(L), 206(L)/H206(L), 207(L), 255, 281, 282; GEOG 101, 101L(L), 120; GEOL 101(L),102(L), 103, 110(L); OCEA 101; PSCI 101; 114 PHYS 100(L), 201(L), 202(L), 203(L), 204(L), 221(L), 222(L)

Course from Other College:_____ Advanced Placement_____
Test Name and Score

NOTE: No credit for CHEM 100/H100 if taken after CHEM 201. No credit for PSCI 101 if taken after a college course in astronomy, chemistry, geology, meteorology, oceanography or physics. No credit for PHYS 100 if taken after PHYS 201 or 221. PHYS 221, 222 and 201, 202, 203, H204 combined: maximum credit, one series.

Group 5B: BIOLOGICAL SCIENCES

BIOL 100/H100(L), 104(L), 114, 118, 201(L), 202(L), 203(L), 211(L), 221(L), 231(L), 232(L); ANTH 101, 101L(L)

Course From Other College:_____ Advanced Placement_____
Test Name and Score

NOTE: No credit for BIOL 100 if taken after BIOL 201, 202 or 203. BIOL 231 and 232 combined: maximum credit, one course.

LANGUAGE OTHER THAN ENGLISH - UC Requirement for IGETC Certification

May be fulfilled in one of the following ways:

____ Complete 2 years of the same foreign language in high school with a grade of "C" or better.
Submit official high school transcript to VVC Admissions and Records Office.

OR

____ Complete one of the following Victor Valley College foreign language courses or equivalent course at another college:
CMST 123 (ASL); FREN 102; GERM 102; LATN 102; SPAN 102

OR

____ Complete two years of formal schooling at the 6th grade level or above at an institution where English is not the language of instruction. *Submit official translation of transcript to VVC Admissions and Records Office.*

OR

____ Score of 3 or higher on Foreign Language Advanced Placement test, or a score of 550 or higher on the College Board Achievement Test in Foreign Language. *Submit official transcript to VVC Admissions and Records Office.*

Test Name_____ Score_____ Date taken_____

U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS

CSU Graduation Requirement Only

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

Group 1: POLS 102/H102 **Group 2:** HIST 117/H117 OR HIST 118/H118

NOTE: Courses used to meet this requirement DO NOT count toward fulfilling requirements in Areas 3 or 4 of IGETC for CSU.

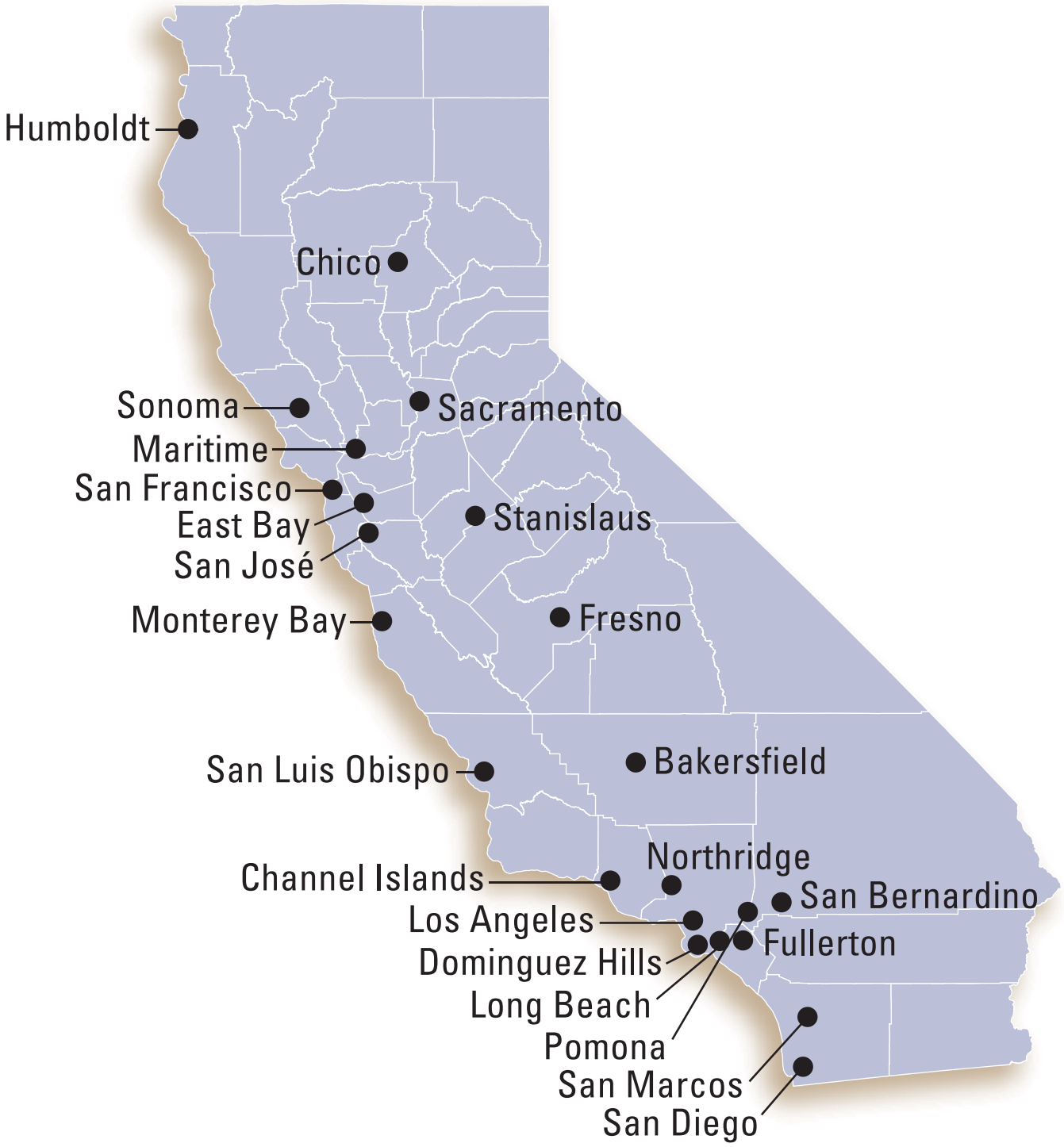
A course may not be used to fulfill more than one requirement even though it may be listed in more than one area. Credit will be given for either the honors (H) or non-honors version of a course, not both. For example, 4 units for Math 105 or Math H105, not both.

CERTIFICATION: ☐ CSU graduation requirement in U.S. History, Constitution, and American Ideals fulfilled
FULL IGETC CERTIFICATION for the following university system(s): ☐ University of California ☐ California State University
PARTIAL CERTIFICATION for ☐ UC ☐ CSU The following have been completed: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Foreign Lang

College evaluator_____ **Title**_____ **Date**_____

CSU The California State University

THE 23 CAMPUSES OF THE CSU



TRANSFERRING TO CALIFORNIA STATE UNIVERSITY (CSU)

Regular Transfer (as a Junior)

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

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. Visit the Counseling Department to request certification.

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.

Guaranteed Transfer To Cal State San Bernardino (CSUSB)

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

Transferring with Fewer Than 60 Units

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

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

Clear any missing college preparatory requirements. If you did not complete the appropriate subject requirements in high school, you can take equivalent courses at VVC (or in adult school or in high school summer sessions; minimum grade of C required) to clear any deficiencies, or earn acceptable scores on specified examinations. Visit the Transfer Center or see a counselor for more information.

For CSU admissions information and applications,

visit

www.csumentor.edu

Considering transferring to a *private* university?

visit

www.aiccu.edu

Your source for information on transferring to independent (non-UC or -CSU) colleges

CSU **Victor Valley College** **2011-2012**

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

Student's Name_____ **Social Security #**____-____-____ **Birthdate**____/____/____
Last First Middle Month Day Year

For information on preparing for your major, visit www.assist.org

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

Important Points:
1. A minimum of 9 additional semester units of upper-division general education must be completed at the CSU campus.
2. If a student completes a course in a year it did not appear on the CSU General Education course list, it cannot be used for GE certification.
3. A minimum of 60 units of transferable courses must be completed to transfer as a junior.
4. Credit is awarded for either an honors or non-honors course, not both. For example, students may receive credit for Math 105 or Math H105, not both.
5. A single course may not fulfill more than one general education requirement even though it may be listed in more than one area.

DIRECTIONS: Circle courses and tally units in appropriate columns.

Legend: C = Units Completed IP = Units In Progress N = Units Needed H = Honors L = Lab

AREA A. COMMUNICATION IN THE ENGLISH LANGUAGE AND CRITICAL THINKING.....minimum 9 units *Choose one course from each of the three areas below. Each course from Area A must be completed with a "C" grade or better.*	**C**	**IP**	**N**
A1 COMMUNICATION CMST 106, 107, 108, 109 Course from other college:			
A2 WRITTEN COMMUNICATION ENGL 101/H101 Course from other college:			
A3 CRITICAL THINKING ENGL 104/H104, PHIL 109, 207*, RLST 207* Course from other college:			
AREA B. SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING.....minimum 9 units *Choose at least one course from B1 Physical Sciences, one course from B2 Life Sciences, and one course from B4 Mathematics. At least one science course must include a laboratory to fulfill B3.*			
B1 PHYSICAL SCIENCE *Courses which include a LABORATORY:* CHEM 100/H100, 201, 202, 206/H206, 207/H207, 255, 281, 282 GEOG 101+101L, 120 GEOL 101, 102, 110 PHYS 100, 201, 202, 203, 204, 221, 222 *Courses which do NOT include a laboratory:* ASTR 101; CHEM 114 GEOG 101; GEOL 103 OCEA 101 PSCI 101, 114, 115 Course from other college:			
B2 LIFE SCIENCE *Courses which include a LABORATORY:* ANTH 101 + 101L BIOL 100/H100,104, 107, 109, 121, 201, 202, 203, 211, 212, 221, 231, 232 *Courses which do NOT include a laboratory:* ANTH 101 BIOL 114, 118 Course from other college:			
B3 LABORATORY ACTIVITY *Any science course in Area B1 or B2 which includes a lab fulfills this requirement. Check appropriate box.*			
B4 MATHEMATICS *The course used to fulfill B4 must be completed with a "C" grade or better.* MATH 104, 105/H105, 119, 120/H120, 132, 226, 227, 228, 231, 270 Course from other college:			

*Cross-listed courses are the same course listed under different departments. PHIL 207 is the same course as RLST 207.

AREA C. ARTS AND HUMANITIES……minimum 9 units *Choose at least one course from the ARTS and one course from the HUMANITIES.*	**C**	**IP**	**N**
C1 ARTS ART 101, 102, 103, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 150; PE 103 (History of Dance); ENGL 116*; MUSC 100, 101, 102, 103, 115, 116, 117, 118, 131, 202, 204; TA 101, 102, 107, 110, 116* Course from other college:			
C2 HUMANITIES ANTH 106; CMST 105 (Intercultural Communication); ENGL 102/H102, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 233, 235, 240, 241, 245, 246, 247; HIST 103, 104, 115/H115, 117/H117, 118/H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; PHIL 101, 108, 114*, 117, 120, 121; POLS 114*; RLST 101, 105, 106, 110, 111, 115, 117; TA 104, 116* Languages: CMST (ASL) 122, 123, 124, 125; FREN 101, 102, 103, 104; GERM 101, 102, 103, 104; LATN 101, 102; SPAN 101, 101A, 101B, 102, 103, 104 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 SCIENCES……minimum 9 units *Choose courses from at least **TWO** different subject areas in AREA D.*			
UNITED STATES HISTORY REQUIREMENT FOR CSU GRADUATION HIST 117/H117 or 118/H118 Course from other college:			
UNITED STATES CONSTITUTION AND AMERICAN IDEALS REQUIREMENT FOR CSU GRADUATION POLS 102/H102 Course from other college:			
ONE ADDITIONAL COURSE FROM AREA D *Choose one additional course not used above from the following:* AGNR 175: AJ 101; ANTH 101, 102, 103, 105, 106; CHDV 100, 106; CMST 105 (Intercultural Communication); ECON 101, 102; GEOG 101, 102, 103, 104; HIST 103, 104, 115/H115, 117/H117, 118/H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157; PHIL 114*; POLS 101, 102/H102, 103, 110, 111, 112, 113, 114*; PSYC 101/H101, 103, 110/H110, 111, 116, 121, 130, 204, 213; RLST 105, 106, 110, 113, 115; SOC 101, 102, 103, 107 Course(s) from other college: *NOTE: Students may use any 9 units from this section to fulfill certification requirements for Area D, but 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 LEARNING AND SELF-DEVELOPMENT.....minimum 3 units			
ALDH 125; CHDV 100; GUID 101, 105*; HLTH 102; PSYC 101/H101, 103, 105*, 110/H110, 121, 125, 130, 133; SOC 103; PE 104 ***OR*** PE 150 (taken as a 2-unit course) ***AND*** 1 unit from APE 160; PE 160, 161, 162, 163, or 164 Course(s) from other college:			
*Cross-listed courses are the same course listed under different departments. GUID 105 and PSYC 105 are the same course. ENGL 116 and TA 116 are the same course. PHIL 114 and POLS 114 are the same course. **TOTAL**			

CERTIFICATION

The student has fulfilled the following California State University requirements in U.S. History, Constitution and American Ideals:

☐ **U.S. HISTORY:**
HIST 117/H117 or HIST 118/H118
Course from other college:_____

☐ **U.S. CONSTITUTION AND AMERICAN IDEALS:**
POLS 102/H102
Course from other college:_____

The student has fulfilled the following lower division requirements for general education certification:

FULL CERTIFICATION ☐ ***OR*** **PARTIAL CERTIFICATION: Subject Areas Certified** **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E** ☐

College Evaluator_____ **Title**_____ **Date**_____

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 Building 55, is the place to go to find out about majors, universities and colleges.

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

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

■ **Annual College Fair.** The Transfer Center hosts a College Fair each Fall semester where representatives from both in- and out-of-state colleges and universities visit the campus to provide information about their institutions and programs.

■ **Campus Visits.** In addition to reviewing catalogs and other written materials on the campuses you are considering, it is a good idea to personally visit those institutions. The Transfer Center organizes group campus tours in both the Fall and Spring semesters.

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.

Counseling Resources

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

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

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, etc.), official transcripts of record bearing the seal of the college will be forwarded to designated institutions or individuals.

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

Official transcripts issued to students will be provided in a sealed envelope marked "OFFICIAL IF SEALED."

There is a fee for each transcript processed after two have been issued. The Transcript Request form and fees may be accessed at www.vvc.edu/offices/admissions-records. The number for transcript information is (760) 245-4271, ext. 2272, 2279, 2297, 2575, 2579, 2720.

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 an online application within the filing period. The Transfer Center will provide assistance with applications. Students will also be required to mail official transcripts and possibly additional documentation when requested.

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 should contact the Admissions Department of the specific college for which he is applying to inquire if applications are still being accepted.

Application deadlines vary by campus. For information on the University of California (UC) system, visit www.universityofcalifornia.edu/admissions. For information on the California State University (CSU) system, go to www.csumentor.edu. Note that deadlines are usually quite far in advance; for example, applications may be due as early as October of one year for admission to the Fall term of the following year.

Impacted Majors

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

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

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

Maximum Transferable Credit

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

Notice of Responsibility:

*Students should always study the catalog and website 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.*

For more information about transferring, visit these websites:

www.californiacolleges.edu/
CaliforniaColleges.edu covers UC, CSU and independent colleges, and provides virtual campus tours, student-campus matching assistance, information on financial aid, and admissions planners for first-year and transfer students.

www.universityofcalifornia.edu
The University of California, Office of the President, offers this site for information about UC. It also provides links to each of the ten UC campuses.

www.calstate.edu
This site provides information about California State University's educational programs, system wide policies and initiatives, historical and general information, admission requirements and procedures. The site also provides access to links for all 23 CSU campuses.

www.csumentor.edu
Provides outreach, financial aid, and admission information about the CSU system. Here, you can take virtual campus tours, develop a comparative view of different campuses, establish e-mail connections with campus personnel, and apply electronically.

The ASSIST website is the most up-to-date source for community college course transferability to UC and CSU campuses. It also provides lists of courses required for various majors and shows which courses are accepted for transfer general education. We have formal, course-to-course equivalency agreements between VVC and many of the UC and CSU campuses.

www.aiccu.edu
This is the official web site of the Association of Independent California Colleges and Universities. Visit this site for information on independent (non-UC or CSU) schools in California.

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

AJ **101**, 102, **103**, 104, 123, 124, 126, 127, 130, 132, 133, 135. 138, 140, 148, 149, 150, 201
AGNR **100**, 101, **102**, 120, 121, 122, 123, 129, **131**, 138, 140, **141**, 148, 149, 150, 151, 152, 153, 154, 160, 161, 170, 171, **175**
ALDH **125**, 138, 139, 141, **142**, 148, 149,
ANTH **101**, **101L**, **102**, **103**, 103F, **105**, **106**, 107, 128, 129, **151**
ART **101**, **102**, **103**, **104**, **105**, **106**, **107**, **108**, **109,** **112**, **113**, **114**, **115**, **120**, **121**, **122**, **123**, **124**, **125**, **126**, 128, 129, 130, 131, 132, **133**, 134, 135, 136, 138, **141**, **142**, **150**, **151**
ASTR **101**
ATHL **120**, 120P, **121**, 121P, **122**, 122P, **123**, 123P, **124**, 124P, **125**, 125P, **126**, 126P, **127**, 127P, **128**, 128P, **129**, 129P, **130**, 130P, **131**, **132**, 132P, **133**, 133P, **134**, 134P, **135**, 135P, **140**, 140P, 143
AUTO 138
BIOL **100/**H100, **104**, 107, 109, 113, **114**, **118**, 120, **121**, 126, 127, 128, 129, 138, 149, **201**, **202**, **203**, **211**, **212**, 213, 215, **221**, **231**, **232,** 250A
BADM **100**, **101**, **102**, **103**, **104**, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 116, **117**, **118,** 122, 138, 142, 144, 148, 149
BET 100, 101, 103, 103A, 103B, 103C, 103D, 104, 104A, 104B, 104C, 104D, 107, 107A, 107B, 107C, 111A, 111B, 111C, 112, 112A, 112B, 112C, 114A, 114B, 114C, 117A, 117B, 117C, 118, 118A, 118B, 118C, 122, 122A, 122B, 122C, 123L, 123M, 123T, 124, 125, 127, 130, 131A, 131B, 131C, 133, 134, 135, 136, 138
BET 139A, 139B, 139C, 141A, 141B, 141C, 142, 143, 145, 148, 149
BESC 138, 141, 142, 143, 148, 149
BRE 100, 101, 110, 111, 120, 121, 125, 126, 127, 138, 139, 140, 142, 148, 149
BET 139A, 139B, 139C, 141A, 141B, 141C, 142, 143, 145, 148, 149
BESC 138, 141, 142, 143, 148, 149
BRE 100, 101, 110, 111, 120, 121, 125, 126, 127, 138, 139, 140, 142, 148, 149
CHEM **100/H100**, **114**, 120, 128, 129, 138, **201**, **202**, **206/H206**, **207/H207**, **255**, **281**, **282**
CHDV **100**, **106**, 110, 111, 115, 132, 133, 134, 137, 138, 141, 142, 143, 144, 145,147, 148, 149, 150, 160, 200, 210, 220, 239, 240
CIS **101**, 102, 103, 105, 106, 107, **108**, 111, 123, 124, 125, 127, 136, 137, 138, 139, 200, **201**, **202**, **203**, 205, 206A, 206B, 210, 211A, 211B, 211C, 240A, 240B, 252, 261, 262, 280, 281, 287A, 287B, 288A, 288B, 290A, 290B
CIDG 101, 103, 104, 108, 110, 120, 138, 148, 153, 160, 210, 230, 231, 260, 261, 281
CMST **105**, **106**, 107, **108**, **109**, 120, **122**, **123**, **124**, **125**, 128, 129
CT 101, 103, 104, 105, 106, 107, 108, 109, 110, 111A, 111B, 112, 113, 114, 115, 116, 119, 120A, 120B, 121, 122A, 122B, 122C, 123, 124, 125, 126, 127, 128, 130, 131, 132, 133, 136, 137, 138, 140, 141, 142, 143, 148
CTMF 120A, 120B, 122, 126A, 126B, 127, 129A, 129B, 130A, 130B, 131A, 131B, 140, 141
CTMT 120, 121, 122, 123, 129
CTPB 111, 112, 113, 114, 115, 116A, 117, 118, 119
ECON **101**, **102**, 118, 128, 129
EDUC **101**, 138
ETEC 106, 107
ELCT 110, 131, 132, 133, 134, 138, 148
ENGL **101/H101**, **102/H102**, **104/H104**, 109, 112, **116**, 128, 129, 138, 149, **162**, 210, 211, **220**, **225**, **230**, **231**, **232**, **233**, 235, **240**, **241**, **245**, **246**, **247**

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

CSU & UC TRANSFERABLE COURSES

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

Transferable Courses, continued

ENGL **101**/**H101**, **102**/**H102**, **104**/**H104**, 109, 112, **116**, 128, 129, 138, 149, **162**, 210, 211, **220**, **225**, **230**, **231**, **232**, **233**, 235, **240**, **241**, **245**, **246**, **247**
FIRE 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 121, 138, 148, 149
FREN **101**, **102**, **103, 104**, 125, 128, 129
GEOG **101**, **101L**, **102**, **103**, **104, 110, 120,** 128
GEOL **101**, **102**, **103**, 109, **110**, 112, 128, 129
GERM **101**, **102**, **103**, **104**, 125, 128, 129
GUID 100, 101, 105, 107
HIST **103**, **104**, **115**, **117**, **H117**, **118**, **H118**, **119**, **120**, **121**, **124**, **125**, **127**, 128, 129, **130**, **131**, **135**, 145, **150**, **153**, **155**, **157**
HLTH **102**,
HVAC 122A, 122B, 122C, 136
IND STD 128, 129
JOUR 106, 108, 108L, 128, 129
LATN **101**, **102**
MATH 104, **105**/**H105**, **119, 120**/**H120**, 128, 129, **132**, 138, **216**, **226**, **H226**, **227**, **H227**, **228**, **H228**, **231**, **270**
MUSC **100**, **101**, **102**, **103**, **104, 105**, **108**, **110**, **111**, 112, 113, **115**, **116**, **117**, **118**, **120A**, **120B**, **120C**, **120D**, **120E**, **120F**, **120G**, **120H**, **120I**, **120J**, **122**, **123**, **124**, **125**, **126**, 128, 129, **130**, **131**, **132**, **134**, **136**, **137**, 138, **139**, **140**, **141**, **143**, 144, **145**, **146**, **147**, **202**, **203**, **204**, **205**, **210**, **211**
NURS 138, 148, 149, 220, 221, 222, 223, 224, 225, 226, 227, 245, 246
OCEA **101**
PHIL **101**, **108**, **109**, 114, **117**, **120**, **121**, **128**, 129, **207**
PHOT **100**, **101**, 102, 103, 104, 105, 106, 128, 129, 138
PE **101**, **103**, 104, **120**, **121**, **122**, **123**, **124**, **125**, **126**, **128**, **140**, **141**, **142**, 150, 151, **160**, **161**, **162**, **163**, **164**, **165**, **166**, **168**, **180**, **181**, **182**, **183**, **184**, **185**, **186**, **187**, **188**, **190, 266**
APE **160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 180, 181, 182, 183, 184, 185, 186**
PEDA **101, 150, 151, 152, 153, 160, 161, 162, 163, 164, 165, 166, 167**, 169, **170, 171, 174, 175, 176, 177,** 178, **180, 266, 267, 270, 271, 274, 275, 276, 277**
PSCI **101, 114**, 115, 128, 138
PHYS **100**, 128, 129, 138, **201**, **202**, **203**, **204**, **221**, **222**
POLS **101**, **102**, **H102**, 103, **110**, **111**, **112**, **113**, 114, 120, **128**, 129, 130, 131, 133, 134, 135, 136, 137,138, 139
PSYC **101**/**H101**, **102**, 103, 105, 108, 109, **110**, **H110**, **111**, 112, **116**, **121**, 125, 128, **130**, **133**, 138, 139, 143, **204**, **213**
RLST **101, 105, 106, 110,** 111, **113, 115, 117,** 128**,** 129, **207**
RSPT 138, 149, 230, 231, 232, 233, 234, 239, 241, 242, 243
RMGT 120, 138
SOC **101**, **102**, 103, **107**, 128, 129, 138
SPAN **101**, **101A**, **101B**, **102**, **103**, **104**, 110, 125, 128, 129, 130, 131, 135
TA **101, 102, 104, 106, 107**, 108, **109, 110, 111**, 113, **115, 116, 117, 120, 125ABC,** 128, 129, 138, **160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275**

Updated 5/18/10

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INSTRUCTIONAL PROGRAMS

VICTOR VALLEY COLLEGE DEGREES AND CERTIFICATES

The college offers the *Associate of Science (A.S.)* and *Associate of Arts (A.A.)* degrees, and two kinds of certificates:

Certificates of Achievement (CA) are awarded for completion of programs that consist of 18 or more units, and are approved by the California Community Colleges Chancellor's Office. CAs are noted on students' official college transcripts.

Certificates of Career Preparation (CP) recognize completion of a sequence of fewer than 18 units, approved by the VVC Board of Trustees. Students are presented a paper award, but the certificate does not appear on the college transcript.

Administration of Justice, A.S.
Administration of Justice Certificate (CA)
Corrections Certificate (CP)
Fingerprint Recognition and Classification Certificate (CP)
Forensic Specialist Certificate (CP)
Law Enforcement Modulated Course Level II Certificate (CP)
Law Enforcement Modulated Course Level III Certificate (CP)
Module A Reserve Academy Firearms Only Certificate (CP)
PC 832 Law Enforcement Course Certificate (CP)
Police Technician Specialist Certificate (CP)
School Police Course: PC 832.3 Certificate (CP)

Agriculture and Natural Resources
Horticulture, A.S.
Animal Science Technician Certificate (CP)
Ecological Restoration Technician Certificate (CP)
Environmental Field Studies Certificate (CP)
Equine Science Specialist Certificate (CP)
Floral Design Certificate (CP)
Geospatial Technician Certificate (CP)
Horticulture & Landscape Technician Certificate (CP)
Horticulture Specialist Certificate (CA)
Landscape Specialist Certificate (CA)
Landscape Irrigation Certificate (CP)
Mojave Desert Master Gardener Certificate (CP)
Natural Resource Management Technician Certificate (CP)

Allied Health
Nursing Assistant/Home Health Aide Certificate (CP)

Automotive Technology, A.S.
Automotive Brake & Suspension Specialist Certificate (CP)
Automotive Drivability Specialist Certificate (CP)
Automotive Inspection and Maintenance (CP)
Technician Certificate (CP)
Automotive Repair Shop Manager Certificate (CP)
Automotive Specialist I Certificate (CA)
Automotive Specialist II Certificate (CA)
Automotive Technician Certificate (CA)
Automotive Transmission Specialist Certificate (CP)
Automotive Window Tinting Technician Certificate (CP)
Basic Inspection Area Smog Technician Certificate (CP)
Collision Repair Technician Certificate (CP)
Engine Machinist Specialist Certificate (CP)
Enhanced Inspection Area Smog Technician Certificate (CP)
Heavy Duty Diesel Truck Lubrication and Inspection Specialist Certificate (CP)
Heavy Duty Truck Brake Repair Specialist Certificate (CP)
Import Sport Tuning and Customization Certificate (CP)
Motorcycle Repair Technician (CP)
Recreational Vehicle Service and Repair Technician Certificate (CP)
Small Engine Repair Specialist Certificate (CP)

Biological Science
Biotechnology Certificate (CP)

Business, A.S.

Business Administration, A.S.
Bookkeeping I Certificate (CP)
Management Certificate (CA)

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

Business Real Estate and Escrow, A.S.
Advanced Business Real Estate Certificate (CA)
Basic Business Real Estate Certificate (CA)
Business Real Estate Apprentice Certificate (CP)
Property Management Certificate (CA)
Real Estate Appraiser Certificate (CA)
Real Estate Marketing Certificate (CA)
Real Estate Secretarial Services Certificate (CA)

Child Development, A.S.
Level I: Associate Teacher (Pre-school) (CA)
Level II: Teacher (Pre-school) (CA)
Level III: Supervisor (CA)

Computer Information Systems, A.S.
Database Administration Certificate (CA)
My SQL Database Developer Certificate (CP)
Netware Certificate (CP)
Network Specialist Certificate (CP)
Programming I Certificate (CA)
Programming II Certificate (CA)

Productivity Software Specialist Certificate (CA)
UNIX Administrator Certificate (CP)
Visual Basic Programming Certificate (CP)
Web Authoring Certificate (CP)

Computer Integrated Design and Graphics, A.S.
Architectural CADD Technician I Certificate (CP)
CADD Technician I Certificate (CP)
Civil CADD Technician I Certificate (CP)
Digital Animation Artist Certificate (CP)
Digital Animation Technician I-Softimage XSI Certificate (CP)
Digital Animation Technician I-3ds Max Certificate (CP)
Drafting Technician I Certificate (CP)
Visual Communications Graphic Design Certificate (CP)
Visual Communications Print Production Certificate (CP)

Construction and Manufacturing Technology, A.S.
Basic Electrical Technician Certificate (CP)
Basic HVAC/R Certificate (CP)
Basic Residential Maintenance Technician Certificate (CP)
Basic Woodworking Certificate (CP)
Building Construction Certificate (CA)
Building Inspection Certificate (CA)
Construction Management Certificate (CA)
Construction Technology Certificate (CA)
Plumbing Technician Certificate (CP)
Public Works Certificate (CA)
Renewable Energy Certificate (CP)

Education Technology
Collegial Education I/II Certificates (CP)
Education Technology Certificate (CP)

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

Electronics Engineering Technology, A.S.
Associate Degree Electronics Engineering Technology Certificate (CA)

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

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

Fire Technology, A.S.
Fire Company Officer Certificate (CA)
Fire Fighter Certificate (CA)
Fire Prevention Officer Certificate (CA)

Liberal Arts, A.A.
This is usually the major for students who are undecided but who wish to transfer to a university, and/or for those who are interested in areas such as the following:
Anthropology, Economics, English, French, Geography, History, Journalism, Liberal Studies, Philosophy, Political Science, Psychology, Religious Studies, Sociology, Spanish

Math/Science, A.S.
This is usually the major for students interested in areas such as the following:
Anatomy, Astronomy, Biology, Chemistry, Geography, Geology, Mathematics, Microbiology, Oceanography, Physical Education, Physical Science, Physiology, Physics

Media Arts
Digital Animation Artist Certificate (CP)
Digital Animation Technician I - Softimage Certificate(CP)
Digital Animation Technician I - 3ds Max Certificate (CP)

Medical Assistant, A.S.
Medical Assistant Certificate (CA)

Nursing, A.S.
Associate Degree Nursing Certificate (CA)
Nursing Licensure Certificate (CA)

Paralegal
Paralegal Studies Certificate (CA)

Paramedic, A.S.
Paramedic Certificate (CA)

Photography
Digital Photography Certificate (CP)

Physical Education
Physical Education Dance Certificate (CP)

Political Science
International Studies Certificate (CP)
Respiratory Therapy, A.S.
Respiratory Therapy Certificate (CA)

Restaurant Management, A.S.
Restaurant Management Certificate (CA)

Welding, A.S.
Welding Certificate (CA)

PROGRAMS AND COURSE DESCRIPTIONS

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.

Careers in the criminal justice field are found at the federal, state, county, and city levels.

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. The modular format provides the opportunity to become a reserve officer while completing Module II and III of training. A Module 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 Crime Scene Investigation course (AJ 67) and the Fingerprint Recognition and Classification course (AJ 31). May become Criminalist. CSULA offers a M.A. degree in Criminalists.

Career Opportunities
Communication Technician
Correctional Officer
Criminalist
Criminologist
Deputy Sheriff
Forensic Technician
Juvenile Correctional Officer
Police Officer
Probation Officer
Security Manager
Security Officer
Special Agent/Investigator

Faculty
Full Time
Ron Fields
Michael Visser

Degrees and Certificates Awarded
Associate in Science, Administration of Justice
Administration of Justice Certificate
Correctional Science Certificate
Corrections Certificate
Fingerprint Recognition and Classification Certificate
Forensic Specialist Certificate
Modular Course Level II Certificate
Modular Course Level III Certificate
PC 832 Firearms Only Certificate
PC 832 Law Enforcement Course Certificate
Police Technician Specialist Certificate
School Police Course: PC 832.3 Certificate

Autopsy Assistant Trainee Exam
Students who wish to take the Autopsy Assistant Trainee exam to seek positions as trainees or interns should take AJ 67, 133, 145; ALDH 139; BIOL 211 (prerequisite: BIOL 100 or 107); and PHOT 101.

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.

Units Required: 24.0

All of the following must be completed:

AJ 101	Introduction to Administration of Justice	3.0
AJ 102	Criminal Procedures	3.0
AJ 103	Criminal Law	3.0
AJ 104	Legal Aspects of Evidence	3.0
AJ 126	Traffic Enforcement and Investigation	3.0
AJ 127	Crime and Delinquency	3.0
AJ 133	Writing for Criminal Justice	3.0
AJ 201	Multicultural Issues in Public Safety	3.0

CORRECTIONS CERTIFICATE

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

Units Required: 8.0

AJ 64	Basic Corrections Officer Academy	8.0

FINGERPRINT RECOGNITION AND CLASSIFICATION CERTIFICATE

Units Required: 2.5

AJ 31	Fingerprint Recognition and Classification	2.5

FORENSIC SPECIALIST CERTIFICATE

Units Required: 3.5

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.

AJ 67	Crime Scene Investigation	3.5

LAW ENFORCEMENT MODULAR COURSE LEVEL III CERTIFICATE

Units Required: 6.5

This certificate will be awarded to students who have successfully completed the Level III Modulated Course. This course is certified by the Commission on Peace Officer Standards and Training.

AJ 80	Level III Modulated Basic Course	6.5

PC 832 FIREARMS ONLY CERTIFICATE

Units Required: 0.5

AJ 30	Firearms Training	0.5

LAW ENFORCEMENT MODULAR COURSE LEVEL II CERTIFICATE

Units Required: 15.5

This certificate will be awarded to students who have successfully completed the Level II Modulated Course. This course is certified by the Commission on Peace Officer Standards and Training.

AJ 80	Level III Modulated Basic Course	6.5
AJ 81	Level II Modulated Basic Course	9.0

PC 832 LAW ENFORCEMENT COURSE CERTIFICATE

Units Required: 3.0

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.

AJ 58	PC 832 Law Enforcement Course	3.0

SCHOOL POLICE COURSE: PC 832.3 CERTIFICATE

Units Required: 2.0

AJ 8	PC 832.3 Campus Law Enforcement	2.0

POLICE TECHNICIAN SPECIALIST CERTIFICATE

Units Required: 15.5

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.

AJ 103	Criminal Law	3.0
AJ 126	Traffic Enforcement and Investigation	3.0
AJ 133	Writing for Criminal Justice	3.0
AJ 140	Communication Skills for Interviewing and Interrogation	3.0
AJ 67	Crime Scene Investigation	3.5

Associate Degree

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

Transfer

To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Criminal Justice major

  Complete the following courses prior to transfer if possible: AJ 101, 103, MATH 105 or 132.

Local Bachelors Programs

For information on the following programs located in the High Desert, please visit www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets":

- **Brandman University, Victor Valley Campus**
  Criminal Justice major

- **University of La Verne, High Desert Campus**
  Criminal Justice major (online)

ADMINISTRATION OF JUSTICE COURSES

AJ 8.0 PC 832.3 CAMPUS LAW ENFORCEMENT
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (No Prerequisite. Pass/No Pass)

This course complies with the state requirements for K-12 and Community College peace officer training per Penal Code 832.3g, certified by the State Commission on Peace Officer Standards and Training. This course includes the role and responsibilities of campus police, search and seizure, student discipline and records, crimes against persons and property, mandatory reporting of child abuse, and disaster preparedness.

AJ 25 PUBLIC SAFETY DISPATCHER
Units: 5.5 - 80-90 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No Prerequisite. Pass/No Pass)

This course complies with the Commission on Peace Officer Standards and Training (POST) requirements for Public Safety Dispatchers. This course includes the criminal justice system, criminal law, communication technology, telephone and radio procedures, missing persons, domestic violence, cultural diversity, sexual harassment, gang awareness, emergency medical services and stress management.

AJ 30 PC 832 FIREARMS
Units: 0.5 - This course will not apply to the Associate Degree. 24-27 hours laboratory. (Prerequisite. All students must have a DOJ criminal record clearance, in writing, from DOJ before registering for this class. Pass/No Pass)

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.

AJ 31 FINGERPRINT RECOGNITION AND CLASSIFICATION
Units: 2.5 - This course will not apply to the Associate Degree. 40-45 hours lecture. (No prerequisite. Pass/No Pass)

This course offers instruction in fingerprint recognition and classification to a person without any prior knowledge in fingerprint patterns. Every person who is successful in this course will be able to recognize and accurately classify a fingerprint and distinguish a known fingerprint from an unknown fingerprint.

AJ 58 PC 832 LAWS OF ARREST
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No Pass)

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.

AJ 64 BASIC CORRECTIONS OFFICER ACADEMY
Units: 8.0 - 112-126 hours lecture and 48-54 hours laboratory. (No prerequisite; Pass/No Pass)

This course satisfactorily meets the requirements of section 1020 of the California Administrative Code, Minimum Jail Standards and the Basic Jail/Adult Institution requirements of the STC program.

AJ 67 CRIME SCENE INVESTIGATION
Units: 3.5 - 48-54 hours lecture and 24 hours laboratory. (No prerequisite)

This course concentrates on the technical aspects of evidence collection, crime scene reconstruction, crime scene photography, evidence packaging, and court room testimony. The student is prepared to distinguish between trace, stain, and impression evidence and the role of these types of evidence in criminal investigations.

AJ 73 LEGAL ASPECTS OF CORRECTIONS
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course provides students with an awareness of the historical framework, concepts and precedents that guide correctional environment, the civil rights of prisoners and responsibilities and liabilities of correction officials. Emphasis will be placed on federal case law and its application to correctional work.

AJ 80 LEVEL III MODULATED LAW INFORCEMENT BASIC COURSE
Units: 6.5 - 86 hours lecture and 85 hours laboratory. (No Prerequisite. Pass/No Pass)

This course complies with the Commission on Peace Officers Standards and Training (POST) requirements for the Level III. Modulated Basic Course. This course includes professionalism and ethics; criminal law; laws of arrest and search and seizure; report writing, vehicle operations; use of force and force options; chemical agents; and firearms training.

AJ 81 LEVEL II MODULATED LAW INFORCEMENT BASIC COURSE
Units: 9.0 -121 hours lecture and 133 hours laboratory. (Prerequisites: AJ 80 and Department of Justice criminal record clearance. Pass/No Pass.)

This course complies with the Commission on Peace Officers Standards and Training (POST) requirements for the Level II Modulated Basic Course. This course includes community relations; victimology; crimes against property and persons; crimes against children; specific sex crimes; search and seizure law; investigative report writing; crimes in progress and patrol tactics; use of force; defensive tactics; and firearms training.

AJ 91 CORRECTIONS SUPERVISION AND CONTROL
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

Students will learn to supervise and control inmates in the emotionally charged atmosphere of adult corrections. They will learn to detect and mitigate problems using motivational and communications techniques. They will learn to set and enforce standards. These skills are invaluable in a corrections environment.

AJ 101 INTRODUCTION TO THE ADMINISTRATION OF JUSTICE
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite)

This course provides an overview of the history and philosophy of the criminal justice system as it evolved. The course provides an in-depth study of the American system and the various sub-systems; roles and role expectations of criminal justice agents in their inter-relationships in society; concepts of crime causation, punishment and rehabilitation; ethics, education and training for professionalism in the criminal justice system.

AJ 102 CRIMINAL PROCEDURES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite) Legal processes from pre-arrest through trial, sentencing and correctional procedures. A review of the history of case and common law; conceptual inter-pretations 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.

AJ 103 CRIMINAL LAW
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite)

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.

AJ 104 LEGAL ASPECTS OF EVIDENCE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search, and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies viewed from a conceptual level.

AJ 126 TRAFFIC ENFORCEMENT AND INVESTIGATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

A study of the fundamentals of accident investigation and reconstruction employing the principles of crime scene initial survey, evidence collection, skid mark analysis, and interviewing techniques. Includes the study and comprehension of the California Vehicle Code.

AJ 127 CRIME AND DELINQUENCY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

AJ 130 DEATH INVESTIGATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite) A course designed to prepare the law enforcement officer with the appropriate knowledge and techniques for handling homicide investigations.

AJ 132 INTRODUCTION TO CORRECTIONS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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 institutions.

AJ 133 WRITING FOR CRIMINAL JUSTICE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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, memorandums, directives, and administrative reports with an emphasis on criminal justice terminology in note taking and report writing.

AJ 135 JUVENILE LAW AND PROCEDURES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

An overview and history of the Juvenile Justice System that evolved in the American Justice System. This course examines the sociological theories of de-linquency, constitutional rights of juveniles, investigative procedures regarding juveniles, and the judicial proceedings of juveniles from intake to custodial resolutions.

AJ 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

AJ 140 COMMUNICATION SKILLS FOR INTERVIEWING AND INTERROGATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

AJ 145 INTRODUCTION TO CRIMINAL INVESTIGATIONS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

The course explores the processes involved in investigation crimes against persons; crimes against property; sex crimes; cyber-crime; controlled substances and organized crime; bomb and illegal explosive crimes; and crimes against children. The course will examine various communication methods when interviewing victims or interrogating suspects and examine the Constitutional restrictions when conducting searches or seizures for evidence.

AJ 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

AJ 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

AJ 150 INTRODUCTION TO FORENSIC SCIENCE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course introduces the role of forensics in the criminal justice system. The course includes: crime scene processes and analysis; interpretation of patterns for reconstruction; physical pattern evidence; fingerprint identification and patterns; questioned document examination; tool marks and firearms examination; biological evidence and DNA; arson and explosives evidence, and drug analysis.

AJ 201 MULTICULTURAL ISSUES IN PUBLIC SAFETY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

AGRICULTURE AND NATURAL RESOURCES

California and the United States are rapidly reaching a crisis situation in the management and preservation of natural resources. The recent crisis with energy in California bears witness to this fact. The most important issues concern the critical resources of food, energy, water, air, wildland and wildlife. It is essential that our society be taught a greater awareness of the need to conserve and wisely manage these resources. Careers and the public and private entities that manage and use these resources are expanding rapidly as the critical nature of these issues become more apparent. Individuals that are trained in agricultural and natural resource principles and issues are perfectly positioned to take advantage of these exciting opportunities.

The Agriculture and Natural Resource Department is intent on providing students with the training and resources needed to compete in this rapidly expanding green career field and the skills needed to continue their studies in this arena. The department has designed its educational programs on the following premises:

1. A focus on the underlying scientific principles and math skills that support the disciplines of agriculture and natural resource management.

2. Application of advanced technologies that include the management of data with sophisticated computer software, Geographic Information Systems (GIS), Global Positioning Systems (GPS) and Remote Imaging Technology.

3. A focus on "Sustainable Development," that balances the need to preserve natural ecological relationships with the social and economic needs of the humans that use a particular ecosystem or region.

4. Provide increased "hands-on" learning and field experiences. The skills needed to be successful in these areas are best taught through actual experience via laboratories, investigative field experiences, internships, field trips and simulated case studies.

The department currently focuses on training students in fields of Environmental Horticulture, Habitat Restoration, Landscape Irrigation, Floral Design, Natural Resource Management, Geographic Information Science, Water Resource Management, Equine and Animal Science, and Animal Health.

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

Faculty
Full-time
Neville Slade

Degrees and Certificates Awarded
Associate in Science, Horticulture
Animal Science Technician Certificate
Ecological Restoration Technician Certificate
Environmental Field Studies Technician
Equine Science Specialist Certificate
Floral Design Certificate
Geospatial Technician Certificate
Horticulture and Landscape Technician Certificate
Horticulture Specialist Certificate
Landscape Specialist Certificate
Landscape Irrigation Certificate
Mojave Desert Master Gardner Certificate
Natural Resource Management Technician Certificate

Certificate Programs

ANIMAL SCIENCE TECHNICIAN CERTIFICATE

Units Required: 11.0 or 12.0

Group I - All of the following must be completed:

AGNR 55	Animal Management Lab	2.0
AGNR 100	General Animal Science	3.0
AGNR 101	Animal Nutrition	3.0

Group II - One of the following must be completed:

AGNR 50	Equine Health	3.0
BIOL 100	General Biology	4.0
AGNR 102	Equine Science	4.0

ECOLOGICAL RESTORATION TECHNICIAN CERTIFICATE

Units Required: 15.0, 16.0, OR 17.0

Group I - All of the following must be completed: 13 units

AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to GIS	3.0
AGNR 123	Introduction to Plant Science	3.0
AGNR 74B	Biodiversity Management and Conservation Technology	1.0
AGNR 74C	Water and Soils Resources and Management	1.0
AGNR 74D	Ecological Restoration	1.0

Group II - One of the following must be completed: 2, 3, 4 units

AGNR 60	Environmental Horticulture Lab	2.0, 3.0, or 4.0
AGNR 72	Geospatial Technology I	4.0
AGNR 73	Water Science	3.0
AGNR 75	Conservation Research Lab	2.0, 3.0, or 4.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 131	Soil Science	3.0
AGNR 140	Plant Materials Usage I	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 148	Special Topics	2.0
AGNR 151	Landscape Construction	3.0
AGNR 152	Landscape Irrigation	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 104	General Botany	4.0
BIOL 127	ID/Study of Amphibians/Reptiles of Mojave Desert	3.0

BIOL 128	ID/Study of Amphibians/Reptiles of Mojave Desert	3.0
BIOL 129	ID/Study of Mammals of Mojave Desert	3.0
CHEM 114	Environmental Chemistry	3.0
GEOG 103	Geography of California	3.0
GEOL 103	Geology of California	3.0
FIRE 65	Basic Wildland Fire Control	2.0

ENVIRONMENTAL FIELD STUDIES CERTIFICATE

Units Required: 10.0

The purpose of this certificate is to teach the state-of-the-art technologies and science of natural resource management. Engage students with their environment through community conservation projects, field studies and applied environmental research. Highlight the diversity and depth of career opportunities and advanced study. Promote linkage with local businesses, government agencies and community groups via partnerships, joint projects, internships, guest speakers and workshops.

All of the following must be completed:

AGNR 74	Conservation and Sustainability Practices	6.0
AGNR 170	Environmental Science	4.0

EQUINE SCIENCE SPECIALIST CERTIFICATE

Units Required: 7.0

Introduces students to the diverse and exciting horse industry in California. Provides the scientific basis to continue studies in this field.

Both of the following must be completed:

AGNR 100	General Animal Science	3.0
AGNR 102	Equine Science	4.0

FLORAL DESIGN CERTIFICATE

Units Required: 14.0

The core of the specialized courses in the Floral Design Certificate have been selected to prepare the student for employment in a commercial flower shop as a designer or assistant to the manager. These classes are taught by professionals in the industry and opportunities for success as a florist are unlimited. Whether for fun or profit, floral design is rapidly becoming a growing industry. Anyone desiring a career as a florist can be assured of advancement by acquiring this state-of-the-art certificate.

Group I - All of the following must be completed:

AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 160	Beginning Floral Design	3.0
AGNR 161	Floral Design II	2.0
AGNR 140	Plant Materials & Usage I	3.0

Group II - One of the following must be completed:

AGNR 122	Plant Propagation and Production	3.0
AGNR 153	Landscape Maintenance	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 60	Environmental Horticulture Lab	3.0
CMST 109	Public Speaking	3.0
BIOL 104	Botany	4.0
BIOL 71	Introduction to Lab Technique	4.0
CT 107	Technical Mathematics	3.0
CT 131	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	3.0

GEOSPATIAL TECHNICIAN CERTIFICATE

Units Required: 13.0, 14.0, or 15.0

Geospatial Information Systems Science is one of the fastest growing industries in the world today. While the rest of the technology sector has been working to recover from economic hardships, the GIS industry has grown to a $30 billion per year enterprise and whose influence and utility is creating a symbiotic relationship and integration throughout industry, business, and government. This certificate is designed to introduce the students to various scientific theoretical aspects associated with this field and prepare them to enter this exciting field as a technician. There is also a “hands on” component where the students are introduced to the highly sophisticated software packages through real-world conservation projects with local agencies and businesses.

Group I - All of the following must be completed:

AGNR 72	Geospatial Technology I	4.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed:

AGNR 60	Environmental Horticulture Lab	3.0
AGNR 73	Water Science	3.0
AGNR 75	Conservation Research Lab	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 148	Special Topics	2.0

ANTH 6	Introduction to GIS for the Social Sciences	3.0
CIS 96A	Structured Query Language A Using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0
GEOG 101	Physical Geography	3.0
GEOL 103	California Geology	3.0

LANDSCAPE SPECIALIST CERTIFICATE

Units Required: 20.0 minimum

The Landscape Specialist Certificate prepares the student to design, install and maintain landscapes. Focuses on the special challenges of drought tolerant and cold hard landscapes.

Group I - All of the following must be completed:

AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 131	Soil Science	3.0
AGNR 60	Horticulture Lab	4.0
CMST 109	Public Speaking	3.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 131	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	2.0 or 3.0

LANDSCAPE IRRIGATION CERTIFICATE

Units Required: 11.0

The Landscape Irrigation Certificate prepares the student to design, install and maintain irrigation systems.

Group I - All of the following must be completed:

AGNR 152	Landscape Irrigation	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 129	Water Efficient Landscaping	3.0

Group II - One of the following must be completed:

AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 151	Landscape Construction	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 150	Landscape Design	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 60	Horticulture Lab	2.0, 3.0 or 4.0
AGNR 73	Water Science	3.0

HORTICULTURE SPECIALIST CERTIFICATE

Units Required: 23.0

The Horticulture Specialist Certificate prepares the student with the basics of establishing and/or managing a horticulture business and a wholesale or retail nursery. This certificate serves as a good crossover for students wishing to enter a natural resource management career.

Group I - All of the following must be completed:

AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to GIS	3.0
AGNR 60	Horticulture Lab	2.0 or 3.0 or 4.0
CMST 109	Public Speaking	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 140	Microcomputers in Construction	4.0

AGNR 138	Cooperative Education	2.0 or 3.0

HORTICULTURE AND LANDSCAPE TECHNICIAN CERTIFICATE

Units Required: 11.0

The Horticulture and Landscape Technician Certificate prepares the student for entry level positions within the nursery and landscaping industries.

Group I - All of the following must be completed:

AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - One of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0

MOJAVE DESERT MASTER GARDENER CERTIFICATE

Units Required: 2.0

AGNR 80	Master Gardner	2.0

NATURAL RESOURCE MANAGEMENT CERTIFICATE

Units Required: 15.0, 16.0, or 17.0

Group I - All of the following must be completed:

AGNR 123	Introduce to Plant Science	3.0
AGNR 131	Soil Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed: 2, 3, 4 units

AGNR 60	Environmental Horticulture Lab	2.0, 3.0, or 4.0
AGNR 72	Geospatial Technology I	4.0
AGNR 73	Water Science	3.0
AGNR 75	Conservation Research Lab	2.0, 3.0, or 4.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 140	Plant Materials Usage I	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 148	Special Topics	2.0
AGNR 151	Landscape Construction	3.0
AGNR 152	Landscape Irrigation	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 104	General Botany	4.0
BIOL 127	ID/Study of Amphibians/Reptiles of Mojave Desert	3.0
BIOL 129	ID/Study of Mammals of Mojave Desert	3.0
CHEM 114	Environmental Chemistry	3.0
GEOG 103	Geography of California	3.0
GEOL 103	California Geology	3.0
FIRE 65	Basic Wildland Fire Control	2.0

Associate Degree

To earn an Associate in Science degree with a major in Horticulture, complete 18 units from any landscape certificates or horticulture coursework, and meet all Victor Valley College graduation requirements. AGNR 138 (Cooperative Education) may be used as elective credit, but may not be used to fulfill major requirements.

Transfer

To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **University of California, Riverside**
  Botany and Plant Sciences major
- **University of California, Davis**
  Plant Science
  Animal Science
- **California State University**
  CSU campuses that offer Environmental Horticulture and Animal Science majors or concentrations include: CSU-Chico, Fresno, Pomona, and Stanislaus.

AGRICULTURE AND NATURAL RESOURCES COURSES

AGNR 50 EQUINE HEALTH

Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option)

Students learn the basics of proper veterinary care of the horse, including what to do before the veterinarian is called. Course introduces the diseases and lameness associated with the musculoskeletal system, as well as diseases of the respiratory, digestive, neurological, and reproductive systems. Emphasis is on preventive maintenance and managerial practices needed to keep the equine athlete, broodmare or family horse in good health in the High Desert Region of California.

AGNR 50A INTRODUCTION TO EQUINE HEALTH AND DISEASE PREVENTION: WHEN TO CALL THE VET
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Introduction to the anatomy and physiology of the horse and the impact of these sometimes fragile systems can impact overall equine health. Students learn to identify the indicators of good health using a first-aid check list and warning signs of disease.

AGNR 50B EQUINE DISEASES, TOXICOLOGY AND PARASITES
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Course emphasizes the early detection and prevention of these agents. Focus on West Nile Virus, Strangles, Rhinopneumonitis and other diseases prevalent in the High Desert. Students develop region-specific vaccination and worming regimens.

AGNR 50C COLIC AND PROPER FEEDING PRACTICES
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Students learn the common environmental factors that may cause digestive health problems like colic and diarrhea. Emphasis is placed on a balanced diet and proper feeding practices.

AGNR 50D EQUINE LAMENESS; LAMINITIS, NAVICULAR AND BEYOND
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Students assess the pathogenesis of navicular Disease and Laminitis; describe common methods of treatment; evaluate the impact of these and other lameness on the athletic potential of the equine athlete. Techniques for diagnosis (radiography, ultrasound) and treatment (chiropractic, drugs) are explored.

AGNR 50E EQUINE REPRODUCTIVE HEALTH
Unit: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

The unusual reproductive conformation of the mare and the stallion and breeding practices has produced an inordinately low level of reproductive efficiency in modern horse breeds. Course presents the appropriate use of recent management and technology innovations: progesterone therapy, increased day-length, ultrasonic imaging, artificial insemination, cooled semen and embryo transfer.

AGNR 50F EQUINE FOALING AND NEONATAL CARE
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

The successful foaling of a mare is fraught with problems from dystocia to assuring that the foal gets sufficient colostrum. Students develop a foaling checklist and guidelines on when to call for Veterinary assistance.

AGNR 51 VETERINARY TERMINOLOGY AND TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

An introduction to the terminology for drugs, disease and dissection in dogs, cats, horses, ruminants, swine and birds. Students identify the parts of a medical term and practice their pronunciation. Basic terminology and function of the skeletal, muscular, digestive, urinary, cardiovascular, respiratory, endocrine, reproductive and nervous systems. Overview of the available technology for animal testing and diagnostic evaluation.

AGNR 55 ANIMAL MANAGEMENT LAB
Units: 1.0-3.0 - 48-54 hours laboratory per unit. (No prerequisite. Grade Option)

This course provides hands-on exposure to the management of large farm animals (livestock) and the experience needed to implement the theory learned in this department's animal and equine science classes. Special emphasis is placed on handling, preventative veterinary care, feeding, facility design, selection, evaluation, judging and preparation for sale. Provides a detailed analysis of various visual and physical methods of appraising beef, sheep, swine and horses for functional and economic value.

AGNR 60 ENVIRONMENTAL HORTICULTURE LABORATORY
Units: 1.0-4.0 - 48-54 hours laboratory per unit, per term. (No prerequisite) This course may be taken four times.

Horticulture laboratory setting for horticulture students to practice the skills gained from experience and traditional lecture/laboratory classes. This setting will further prepare students for employment in the horticulture industry.

AGNR 61 NATURAL LANDSCAPE PRACTICES
Units: 4.0 - 64-72 hours lecture. (No prerequisite. Grade Option)

Introduction to the basics of landscape design; plant material selection; planting and care; composting; irrigation design and maintenance organic and natural methods; soil factors; landscape redesign and renovation; integrated pest management; creating a custom landscape. Emphasis is on the use of water-conserving and resource-efficient practices in establishing functional, attractive landscapes.

AGNR 61A BASICS OF WATER-EFFICIENT LANDSCAPE DESIGN
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Introduction to the seven xeriscape principles (landscape planning and design, soil considerations, practical turf areas, plant material selection, irrigation design, use of mulches, and landscape maintenance). Additional emphasis on drip and water-conserving irrigation, with an overview of local and regional water resources issues. Students will learn the basic elements of landscape design and be introduced to the dynamics of water resource management.

AGNR 61B TREES FOR THE SUBURBAN FOREST: SELECTION, PLANTING, AND CARE
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Students will learn the elements required for the selection, planting, and care of fruit, shade, ornamental, and windbreak trees that are adapted to local climatic conditions and that meet particular landscaping objectives. Emphasis will be on choosing the right type of tree for the location, optimizing site selection, soil preparation and planting, efficient irrigation practices, establishing a home orchard, and tree health, maintenance and pruning.

AGNR 61C RECYCLING THE NATURAL WAY: ESSENTIALS OF COMPOSTING
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Learn how to make productive use of unwanted yard waste and other materials through the Master Composter Program. Topics include: benefits of composting; the biological process of composting; materials that can and cannot be composted; types of composting units and how to establish and manage them; vermiculture; using the finished product as a soil conditioner or mulch, using other solid waste such as straw and concrete in the landscape.

AGNR 61D DESIGNING DRIP IRRIGATION AND OTHER WATER EFFICIENT SYSTEMS
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Students will learn to design, install, and maintain drip and other water-efficient landscape irrigation systems. Topics include: system layout; description of available irrigation hardware components and their use; converting existing systems to be water-efficient; adapting an existing system to a redesigned landscape; effective use of timers and controllers based on seasonal water requirements; troubleshooting and repair.

AGNR 61E ORGANIC METHODS FOR GARDENING AND LANDSCAPING
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Introduction to the use of organic methods in cultivating vegetables, herbs, flowers, shrubs, and trees. Students will learn to evaluate basic soil characteristics and assess the need for soil amendments and fertilizers. Other topics include: assessing plant health; organic and natural soil amendments and fertilizers; selecting and sourcing native and climate-adapted plant materials; plant pests and natural methods for controlling them.

AGNR 61F OUTDOOR REMODELING: APPROACHES TO LANDSCAPE CONVERSION
Units: 0.5 -8-9 hours lecture. (No prerequisite. Grade Option)

Learn to remodel a landscape to make it more resource efficient and attractive. Emphasis will be on redesigning and planning, water-saving approaches for lawn areas, low-maintenance alternatives to lawn areas, utilization of existing landscape elements, salvaging trees and shrubs by pruning and retraining and introduction of new landscape elements that are readily established.

AGNR 61G INTEGRATED PEST MANAGEMENT FOR THE LANDSCAPE AND HOME
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Managing pests with an integrated approach using knowledge of their habits and life histories to determine the best method or combination of methods for controlling them. Students will learn about the biology of

pest organisms (weeds, insects, plant diseases, rodents, and other pests), preventing the establishment of pests before they become a problem, evaluating the effects of pests on plant health, and methods of pest control, with emphasis on low-impact practices and safe handling of chemical treatment.

AGNR 61H NATURAL LANDSCAPES: CREATING A CUSTOM HABITAT
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option)

Design a landscape that incorporates natural practices to create a custom habitat. Includes Habitat Gardening: plants that attract desirable wildlife such as birds and butterflies; edible landscapes; incorporating vegetables, herbs, and fruit trees; planting for seasonal color; allergy-free landscaping; creating outdoor living spaces; integrating hardscape elements such as decks, gazebos, and rockscapes into the design.

AGNR 72 GEOSPATIAL TECHNOLOGY I
Units: 4.0 - 64-72 hours lecture. (No prerequisite)

This course examines the theory behind geographic information systems (GIS) and global positioning systems (GPS) and their application to spatial data. An interdisciplinary approach to GIS and its capability for analysis and decision-making in diverse industries. Students will use ArcGIS9 software and GPS software on real-world projects that find solutions to local problems using spatial data.

AGNR 73 WATER RESOURCE MANAGEMENT
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option)

This class is a complete overview of water resource management in the West Mojave Desert and makes appropriate linkages to the critical nature of water management around the world. Local water management leaders present guest lectures on the economic, political, social, and environmental pressures that must be balanced in providing sustainable water supplies. The scientific principles are presented that must underlie sound water management decisions. Cutting-edge technologies like Geospatial Analysis are used to present the study of groundwater, local watershed health, soil erosion, water quality and water distribution issues.

AGNR 74 CONSERVATION AND SUSTAINABILITY PRACTICES
Units: 6.0 - 96-108 hours lecture. (No prerequisite. Grade Option)

This course introduces students to the exciting and rapidly expanding practice of the conservation and sustainable use of our natural resources. Students use case studies and high-tech tools to learn how we can live comfortably while ensuring that we sustain the environment for future generations. Students explore the social, economic, environmental, technological, scientific, conservation practices and career fields that support this new frontier in societal development.

AGNR 74A SUSTAINABLE COMMUNITY DEVELOPMENT
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) Maybe taken three times.

Students learn to plan and implement sustainable development practices; development that meets the needs of the present generation without compromising the ability of future generations to meeting their own needs. It is also often described as development that considers multiple, sometimes competing values grouped into three general categories; environmental, social and economic. Extensive use is made of case studies and practical on-site experiences. Class may be taught in the Mojave Desert, Costa Rica, Namibia, New Zealand, etc.

AGNR 74B BIODIVERSITY MANAGEMENT AND CONSERVATION TECHNOLOGY
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) May be taken three times.

The reduction of species diversity is a major indicator of the health of a complete ecosystem. This class explores the science, tools and practice of conserving species diversity. Students learn to implement the exciting tools of Geographic Information Systems (GIS), Global Positioning Systems (GPS), Satellite Imaging and Database Management, along with an understanding of the unlimited career opportunities in these fields. An example case study is on the viability of the Lucerne Valley Big Horn Sheep population. Class may be taught in Mojave Desert, Costa Rica, Namibia, New Zealand, etc.

AGNR 74C WATER AND SOIL CONSERVATION
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) Maybe taken three times.

Students discover the tenuous nature of many of the world's water supplies. Tools like GIS are used to study watershed health. The fantastic chemistry of water and methods of water quality testing are presented. Students study the relationships between soil and water, soil mapping, soil analysis and soil erosion using real-world examples. Class may be taught in the Mojave Desert, Costa Rica, Namibia, New Zealand, etc.

AGNR 74D ECOLOGICAL RESTORATION
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) Maybe taken three times.

Students learn to design an ecological restoration plan that effectively balances environmental mitigation with local community social and economic needs. The methodologies appropriate to a particular situation are presented. Topics include: native seed banking, Mycorrhizal relationships, seed stratification and scarification, nutrient requirements, water requirements, transplanting protocols, watershed restoration, soil evaluation and rehabilitation. Class may be taught in the Mojave Desert, Costa Rica, Namibia, New Zealand, etc.

AGNR 74E SUSTAINABLE AGRICULTURE PRACTICES
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) Maybe taken three times.

Tremendous progress has been made towards farming with nature and restoring ranches to be part of the natural ecosystem. This "farming with the wild" is not only producing more food but enhancing the environment. Students study sustainable practices like rotational grazing, organic farming, hedgerows and natural pollination in the United States and overseas. Class may be taught in the Mojave Desert, Costa Rica, Namibia, New Zealand, etc.

AGNR 74F SUSTAINABLE BUILDING AND ENERGY PRACTICES
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option) Maybe taken three times.

The technology to reduce our reliance on fossil fuels by producing energy alternately and building in a sustainable manner is very well represented in the Western Mojave Desert. Students study the latest technology to produce energy from the sun, wind, animal waste and plant matter. The "smart" building practices of straw-bale, Super Adobe, Cob, grey-water and radiant heating are explored.

AGNR 75 ENVIRONMENTAL CONSERVATION TECHNOLOGY LABORATORY
Units: 2.0-4.0 - 96-216 hours laboratory, depending on unit value, (per term).

Students gain hands-on experience with the concepts and technology that support conservation in the Mojave Desert. Students collaborate with natural resource managers in the design and implementation of conservation projects. Projects include: desert restoration, water conservation, GPS/GIS, air quality management, alternative energy, green building and environmental horticulture.

AGNR 76 ADVANCED IRRIGATION TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option) This course may be taken three times.

Students will focus on advanced irrigation technology and will be introduced to state-of-the-art software, irrigation equipment, water management techniques and water quality technology that supports better management of our limited water supply.

AGNR 80 MASTER GARDENER
Units: 2.0 - 32-26 hours lecture. (No prerequisite. Pass/No Pass.)

This course is intended for homeowners and professionals who wish to increase their proficiency in High Desert gardening. Focus on: plant selection, drip irrigation, fruit, vegetables, roses, fertilizers, mulches, soil amendments, composting, herbaceous plants, landscape design, pruning, maintenance, weed control, cactus, succulents, turf-grass and water features.

AGNR 100 GENERAL ANIMAL SCIENCE
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

A scientific overview of livestock and poultry; highlights anatomy and physiology, reproduction, nutrition, behavior, health, and marketing pertinent environmental and social issues, to include animal welfare. Includes human opportunity to influence trait inheritance, population densities, productivity and sustainability of animal production industry. Focus on technologies that assure efficiency and viability of this industry.

AGNR 101 ANIMAL NUTRITION
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

This course covers modern nutritional techniques in large animal production and management. Anatomy of large animal digestive systems will be discussed along with feed composition and meeting large animal dietary requirements for maximum performance and growth. Students will formulate rations for a variety of livestock.

AGNR 102 EQUINE SCIENCE
Units: 4.0 - 64-72 hours lecture. CSU. (No prerequisite)

An overview of the equine industry encompassing the role of the equine species throughout history. Breed selection, development, nutrition, diseases, preventative health, reproductive management, basic horsemanship, and management practices. Emphasis placed on the practices, breeds and career opportunities that are appropriate to the California horse industry.

AGNR 120 PEST MANAGEMENT IN ENVIRONMENTAL HORTICULTURE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Students will learn how to employ the principles and concepts of managing insects, diseases and weeds of the landscape and nursery environment, and their identification and control. To include concept of Integrated Pest Management, laws, and regulations. Effective use of pesticides and herbicides will be emphasized.

AGNR 121 INTRODUCTION TO ENVIRONMENTAL HORTICULTURE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Introduction to environmental horticulture with an emphasis on nursery operations, landscaping, turf management and ecological restoration. Topics include basic plant structure, cultural practices, propagation, landscape structures and layout, seed management, soil analysis, pest management, plant identification, turf grass care and survey of career opportunities.

AGNR 122 PLANT PROPAGATION AND GREENHOUSE PRODUCTION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Students will explore the challenges of propagation and production of native and drought tolerant plants that are adapted to the extreme climate of the High Desert using techniques commonly used in a professional nursery/ greenhouse environment. Topics include sexual and asexual propagation techniques including: seeds, cuttings, layering, division, bulbs, grafting and budding. The greenhouse production techniques for trans-planting; fertilizing; pest, humidity, water and temperature control are studied. Nursery operations such as: growing structures, site layout, preparation of planting media, use and maintenance of tools and equipment, and regulations pertaining to plant pro-duction are emphasized. This class is highly recommended for all landscape, environmental horticulture and ecological restoration certificate candidates.

AGNR 123 INTRODUCTION TO PLANT SCIENCES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade option)

This course provides an introduction to plant science with topics in plant structure and function and the environmental factors involved in plant growth and development. Students learn: plant physiology, plant reproduction and propagation, effects of soil, water, and climate, use of plants to meet human needs, sustainable horticultural practices, integrated pest management, the role of new technologies in contemporary plant science. Application to Mojave Desert issues and to careers in horticulture, agriculture, natural resource management and restoration ecology are emphasized.

AGNR 129 WATER EFFICIENT LANDSCAPING
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite. Pass/No Pass)

This is a combination course covering the seven xeriscape principles: landscape planning and design, limited turf areas, efficient landscape irrigation, soil improvement and mulching, use of low water plants, disease, weed, and insect control, and appropriate landscape maintenance.

AGNR 131 SOIL SCIENCE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

Exploration of the physical, chemical, and biological characteristics of soils. Focus on soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, PH, erosion management, and non-agricultural uses. Emphasis is placed on soil as a natural resource and on its conservation in a desert ecosystem.

AGNR 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

AGNR 140 PLANT MATERIALS AND USAGE I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

AGNR 141 NATIVE PLANT MATERIALS AND USAGE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

This class teaches the identification, growth habits, propagation, seed collecting techniques and ecology of California native plants. The use of native plants in restoration, sustainable agriculture, fire ecology and land development in the Western Mojave Desert is emphasized.

AGNR 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

AGNR 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

AGNR 150 LANDSCAPE DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Fundamentals and history of landscape design. Studies of color, texture, form and use of landscape material. Consideration will also be given to proper site layout with regard to existing elevations and conservation management. Emphasis will be on selection and placement of plant material, walks, patios, decks, and other structures for landscape use. Students design and draft actual landscape projects.

AGNR 151 LANDSCAPE CONSTRUCTION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

AGNR 152 INTRODUCTION TO IRRIGATION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Prepares students to design, install and maintain a water efficient landscape irrigation system. Topics include water supply, basic hydraulics, component identification and terminology, system layout, pipe sizing; types of heads, valves, controllers. Students will gain appreciation for water conservation and quality issues. Students will also learn to troubleshoot irrigation design and electrical problems.

AGNR 153 LANDSCAPE MAINTENANCE FUNDAMENTALS
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

Maintenance of trees, shrubs and ground covers, cultural requirements, pruning, fertilizing, and irrigation. Repair of irrigation systems and equipment.

AGNR 154 LANDSCAPE AND NURSERY MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU.

A combination course covering the basics of land-scaping and nursery management.

AGNR 160 BEGINNING FLORAL DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

An introduction to the fundamental theories, techniques and skills currently practiced in the floral industry. Includes applied art principles, cut flower care, handling practices, proper use of florist tools and materials, pricing of floral products and use of current floral business technology. Students construct corsages, floral arrangements, and foliage plant items which meet floral industry standards.

AGNR 161 ADVANCED FLORAL DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite) This course may be taken four times.

Contemporary design theory emphasizing creativity, self-expression, and professional design situations. Students learn the skills and techniques of the floral industry, including wedding, sympathy, party, holiday, high style and advanced floral designs and displays. Other techniques include working with the customers, consultations, pricing and the use of computers.

AGNR 170 ENVIRONMENTAL SCIENCE AND SUSTAINABILITY
Units: 4.0 - 64-72 hours lecture. CSU (No prerequisite)

Sustainable use and conservation of the world's environment and natural resources, including soil, water, forest, mineral, plant, and animal life, with particular attention to California conditions. Sustainability principles, scientific concepts, modern problems in resource use, global environmental issues and the citizen's role in conservation. The bio-diverse Mojave Desert serves as an exciting "living lab" to study this emerging field.

AGNR 171 INTRODUCTION TO GEOGRAPHIC INFORMATION SCIENCE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite). This course may be taken three times.

Focus on electronic methods of cartography following a presentation of mapping concepts and methods. This course covers the history, structure and uses of the basic operations of Geographic Information Systems (GIS), including hardware and software requirements. Examination of the role of other spatial technologies: aerial photography, remote sensing, and Global Positioning Systems (GPS).

AGNR 175 AGRICULTURE, ENVIRONMENT, AND SOCIETY
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite)

This course explores the sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis on the analysis of agriculture's use of technology and the corresponding impact on the environment, economy, society and sustainable development.

ALCOHOL AND DRUG STUDIES

Programs in Alcohol and Drug Studies offered at community colleges explore various aspects of alcohol and drug abuse, and teach techniques for counseling those who have a substance abuse problem.

At this time, VVC does not offer a certificate in Alcohol and Drug Studies, but the following courses may fulfill some requirements for the Alcohol/Drug Studies Certificate at San Bernardino Valley College: ALDH 125, ENGL 101, PSYC 101, 108, 125, 133, SOC 101, CMST 109.

For more information about the Alcohol/Drug Studies program at SBVCC, visit: http://www.valleycollege.edu/Department/Academic/Human/index.php.

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.

Career Opportunities
Insurance Biller
Monitor Technician
Nursing Assistant
Phlebotomist

Faculty
Full Time
John Doyle

Degrees and Certificates Awarded
Nursing Assistant/Home Health Aide Certificate

Certificate Program

NURSING ASSISTANT/
HOME HEALTH AIDE CERTIFICATE

Units Required: 7.0

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

The state-approved certification program enables students to become familiar with basic principles of bedside nursing, including procedures and techniques

for basic patient care. Clinical experience is provided in state-licensed, long-term care skilled nursing facilities. Students will learn to meet the patient's basic physical and psychological needs and promote a spirit of restoration and independence in a safe, efficient and competent manner. Entrance to class does not guarantee graduation or certification. Must achieve a grade of "C" or better in theory and clinical portions of the program in order to qualify to sit for the state certification exam.

Prerequisites: Documented clearance for any crime more serious than a minor traffic ticket. Fingerprints must be obtained upon enrollment in the program and prior to patient contact. State regulations require documented proof of students' ability to speak, read, write, and comprehend the English language at the sixth grade level.

A **mandatory orientation** is scheduled before the semester begins; please check with the department for upcoming dates and times. Class enrollment is not necessary to attend orientation meeting.

Co-requisite: Healthcare Provider CPR card must be current at the end of the program.

ALDH 60	Nursing Assistant	5.5
ALDH 61	Home Health Aide	1.5

Associate Degree
No associate degree is awarded with a major in Allied Health. Some Allied Health courses fulfill requirements for certificates and majors in Business Education Technologies, Medical Assistant, and Paramedic. See specific programs for certificate and degree requirements. ALDH 138 (Cooperative Education) may be used as elective credit but may not be used to fulfill major requirements.

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

ALLIED HEALTH COURSES

ALDH 50 PARAMEDIC ANATOMY AND PHYSIOLOGY
Units: 2.5 - 64-72 hours lecture. (Prerequisite: Application and acceptance into the Paramedic Academy and ALDH 71 with a grade of "B" or better). This course may be taken three times.

This is the introductory course of the Paramedic program. This course includes basic anatomy, physiology, and medical terminology for the paramedic.

ALDH 51 PARAMEDIC INTRODUCTION TO EMS
Units: 1.5 -24-27 hours lecture. (Prerequisite: Application and acceptance into the Paramedic Program.)

This course covers the roles and responsibilities of the EMT-P. It also includes the Emergency Medical Services System and EMS communication as it relates to the EMT-P.

ALDH 52 PARAMEDIC CARDIOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (Prerequisite: Application and acceptance into the Paramedic Program and successful completion of ALDH 50 and ALDH 51 with a "B" grade or better.)

This course covers the cardiovascular system and includes anatomy and physiology of the heart, and application and interpretation of EKG's.

ALDH 53 PARAMEDIC PHARMACOLOGY
Units: 3.5 - 48-54 hours lecture and 24-27 hours laboratory. (Prerequisite: Application and acceptance into the Paramedic Program and successful completion of ALDH 50 and ALDH 51 with a grade of "B" or better.)

This course will cover the general principles of pharmacology including calculations and administration of various medications.

ALDH 54 PARAMEDIC ADVANCED CARDIAC LIFE SUPPORT
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. (Prerequisite: ALDH 53 with a grade of "B" or better.)

This course will provide a review of basic cardiology, pharmacology, and EKG interpretation used in Advanced Cardiac Life Support.

ALDH 55 EMERGENCY MEDICAL SERVICES
Units: 10.0 - 128-144 hours lecture and 96-108 hours laboratory. Offered Fall. (Prerequisite: Application and acceptance into the Paramedic Program is required before registering for this course and successful completion of ALDH 50, 51, 52, 53 and 54 with a grade of "B" or better.)

This course covers the theoretical and scientific background of emergency medical care in the pre-hospital setting to include patient assessment, trauma and medical emergencies, and skills practice in the lab.

ALDH 56 PARAMEDIC CLINICAL
Units: 4.0 - 192-216 hours laboratory. (Prerequisite: Application and acceptance into the Paramedic

Academy and successful completion of ALDH 55 with a "B" grade or better.)

This course is the first part of the student's internship as part of the Paramedic Program. This includes lab hours at an acute care facility performing Inland Counties Emergency Medical Agency Skills.

ALDH 57 PARAMEDIC FIELD INTERNSHIP
Units: 11.0 - 528-594 hours laboratory. Offered Spring. (No prerequisite)

This course is the field internship portion of the Paramedic program. Students will spend lab hours in the field with a transport service performing Emergency Medical Technician skills.

ALDH 60 NURSING ASSISTANT
Units 5.5 - 48-54 hours lecture and 120-135 hours laboratory. Offered Fall, Spring. (Prerequisites: Documented clearance for any crime more serious than a minor traffic ticket). Fingerprinting will be required. Health exam prior to clinical rotation. Co-requisite: Current healthcare provider CPR card.

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.

ALDH 61 HOME HEALTH AIDE
Units: 1.5 - 20 hours lecture and 24 hours laboratory. (Prerequisites: Must have current and active California CNA certificate). Students who have completed Victor Valley ALDH 60 Nursing Assistant course, 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. Co-requisite: Current Healthcare Provider CPR card or concurrent enrollment in ALDH 91 or other acceptable Healthcare Provider CPR course.)

Enables 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.

ALDH 62 ACUTE CARE CNA
Units: 4.0 - 51 hours lecture and 51 hours laboratory. (Prerequisites: Must have a current and active State of California Certificate for Nursing Assistant (CNA).

Students that have completed Victor Valley ALDH 60 Nursing Assistant course, but have not completed the state exam may enter the program. Certification of completion by Victor Valley College will be contingent upon the student also passing the State CNA Certification exam. Co-requisite: Current Healthcare Provider CPR card.)

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.

ALDH 70 EMERGENCY MEDICAL RESPONDER
Units: 2.5 - 32-36 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course provides training in basic emergency care skills, including patient assessment, CPR, automated external defibrillation, use of definitive airway adjuncts, splinting, and control of bleeding.

ALDH 70B EMERGENCY MEDICAL RESPONDER-REFRESHER
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. (No prerequisite. Grade Option.)

This course provides refresher training for re-certifying the Emergency First Responder. Training includes basic emergency care skills, including patient assessment, CPR, automated external defibrillation, use of definitive airway adjuncts, splinting, and control of bleeding.

ALDH 71 EMERGENCY MEDICAL TECHNICIAN I
Units: 9.0 - 120-135 hours lecture and 72-81 hours laboratory. (Prerequisite: 18 years of age before first day of class and a minimum grade of "B" in CPR equivalent to 2005 AHA BLS for Healthcare providers. State mandated.)

This course provides training in basic emergency care skills, including CPR, automated external defibrillation, use of definitive airway adjuncts, and assisting patients with certain medications. Approved by the Inland Counties Emergency Medical Agency. All students must be eighteen years of age and have CPR (Cardio-Pulmonary Resuscitation) training equivalent to the American Heart Association Healthcare Provider Level

(Title 22, Div. 9, Ch. 2, Sect. 100066 b2 California Code of Regulations) prior to the first day of class due to current clinical/field internship affiliation agreements.

ALDH 72 EMERGENCY MEDICAL TECHNICIAN (AMBULANCE) REFRESHER COURSE
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. (No prerequisite)

Thirty hour refresher course required for renewal of Emergency Medical Technician I Certificate. New Certificate of Completion awarded. Course approved by the Inland County Emergency Medical Agency.

ALDH 76 ATHLETIC TRAINING II
Units: 2.0-6.0 - 108-324 hours laboratory. See cross-listing for PE 76. (Prerequisite: ALDH 141 or PE 141 Athletic Training I, or equivalent.) This course may be taken four times.

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.

ALDH 77 ATHLETIC TRAINING IV
Units: 2.0-6.0 - 108-324 hours laboratory. (Prerequisite: ALDH 141 or PE 141 Athletic Training I, or equivalent.) This course may be taken four times.

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, hydrocolator, range of motion exercises, joint mobilization, strengthening exercises (isokinetic, isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross-listing for PE 77.

ALDH 80 PHARMACOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

Current concepts of pharmacology, its relationship to patient care, and legal and ethical considerations are covered. Basic mechanisms of drug action, administration, toxicity, side effects, and dosages are also included.

ALDH 81 MEDICAL INSURANCE
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

Intensive instruction and drill in completing medical insurance forms for the private sector, industrial Medi-Care, Medi-Cal, Medi-Care/Medi-Cal patient. Basic skills in billing, collecting, banking, and preparation of payroll.

ALDH 82 MEDICAL OFFICE PROCEDURES
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course provides practice in medical office procedures, proficiency in typing medical correspondence, case histories, insurance forms, and reports. Study of telephone techniques, medical record-keeping, and filing. Verbal communication with patients, other offices, and facilities. Preparation and assistance with common back office procedures.

ALDH 82C MEDICAL OFFICE PROCEDURES – CLINICAL
Units: 5.0 - 240-270 hours laboratory. (Prerequisite: ALDH 82 with a grade of 'C' or better.) This course may be taken three times.

This course is designed to provide the externship component of Allied Health 82, Medical Office Procedures. The individual students will presented with 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.

ALDH 82D MEDICAL ASSISTING EXAM REVIEW
Units: 3.0 - 48-54 hours lecture. (Prerequisite: Successful completion of ALDH 82 or equivalent and ALDH 82C or equivalent.)

This class will prepare the student for the medical assisting certification exam. The student will learn strategies to help identify strengths and weaknesses and develop a realistic study plan.

ALDH 83 BASIC ARRHYTHMIA
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

A review of the general anatomy and physiology of the heart and coronary system, with complications associated with acute myocardial infarction with strong electrophysiological/arrhythmogenic component. Upon successful completion, the student will receive a certificate in Basic Electrocardiography and Arrhythmia Interpretation. (This course has been approved by the

Board of Registered Nursing for Continuing Education credit.)

ALDH 84 INTRAVENOUS THERAPY
Units: 2.0 - 30 hours of theory/laboratory and 6 hours of clinical practice in IV therapy. (No prerequisite)

Approved by the Board of Vocational Nursing and the Board of Registered Nursing for Continuing Education. Emphasis placed on providing factual knowledge base, patient-centered psychological aspects, venipuncture techniques and materials. Legal aspects, especially as they relate to LVN's and RN's, are included.

ALDH 90A CERTIFIED PHLEBOTOMY TECHNICIAN 1A
Units: 5.0 - A minimum of 48-54 hours of didactic, 48-54 hours laboratory, and 48-54 hours of practical clinical instruction will be required. (Prerequisite: High School graduate or GED, or documentation of equivalent education; must be 18 years of age or older.)

Certified Phlebotomy Technician 1A prepares a student with the education, training, experience, and examination requirements as specified by the California Department of Health Services, to perform skin punctures or venipunctures in a hospital, clinical lab or doctor's office.

ALDH 90B CERTIFIED PHLEBOTOMY TECHNICIAN 1B
Units: 3.0 - 48-54 hours lecture. (Prerequisite: High School graduate or GED or documentation of equivalent education. Employed within the past 5 years as a Phlebotomist with less than 1040 hours of experience. Completion of 50 successful venipunctures and 10 successful skin punctures.)

Certified Phlebotomy Technician 1B is designed for a student who has less than 1040 hours of job experience and has completed 50 successful venipunctures and 10 successful skin punctures and observation of 2 arterial blood gases within the past 5 years. Experience needs to be documented on a California Statement of Phlebotomy Practical Training Form. This course will prepare the student for the national examination by covering 24-27 hours of basic didactic material and 24-27 hours of advanced didactic material in phlebotomy techniques. This course does not require the student to attend a pre-lab or clinical component.

ALDH 90C CERTIFIED PHLEBOTOMY TECHNICIAN 1C
Units: 1.5 -24-27 hours lecture. (Prerequisite: High School graduate or GED or documentation of equivalent education. Employed within the past 5 years as a Phlebotomist with 1040 hours or more of on-the-job experience. Completion of 50 successful venipunctures and 10 successful skin punctures).

Certified Phlebotomy Technician 1C is designed for a student who has 1040 hours or greater of on-the-job experience and who has completed 50 successful venipuncture's and 10 successful skin punctures and observation of 2 arterial blood gases within the past 5 years. Experience needs to be documented on a California Statement of Phlebotomy Practical Training Form. This course will prepare the student for the national examination covering 24-27 hours of advanced didactic material in phlebotomy techniques, blood borne pathogens, anti-coagulation theory, specimen collection and transportation. This course does not require the student to attend a clinical component.

ALDH 91 BASIC CPR (CARDIOPULMONARY RESUSCITATION)
Units: 0.5 - 2 hours lecture and 10 hours laboratory. (No prerequisite)

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.

ALDH 125 MEDICAL ASPECTS OF DRUGS AND ALCOHOL
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

ALDH 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

ALDH 139 MEDICAL TERMINOLOGY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

ALDH 141 ATHLETIC TRAINING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU,UC. See cross listing for PE 141. (No prerequisite. Interest and/or experience in athletics and sports recommended)

Introduction to principles of athletic training, including prevention, evaluation, treatment, and rehabilitation of common athletic injuries.

ALDH 142 ATHLETIC TRAINING II
Units: 3.0 – 32-36 hours lecture and 48-54 hours laboratory. CSU. (Recommended Preparation: ALDH 141 or PE 141 Athletic Training I, or equivalent.)

This course will build on the students basic knowledge of human anatomy and athletic injuries. Topics will include emergency procedures, current health concerns of the athlete, protective devices, advanced taping techniques and injury management. See cross-listing for PE 142.

ALDH 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

ALDH 149 INDEPENDENT STUDY (formerly AH49)
See Independent Study listing (1-3 units). CSU

AMERICAN SIGN LANGUAGE COURSES

ASL 121 FINGERSPELLING (Formerly CMST 121)
Units: 1.0 - 16-18 hours lecture. CSU. (No prerequisite)

An introductory course that teaches the student the appropriate application of fingerspelling and its production. The course will include strategies for improvement. Also included will be the articulation of loan signs and one to three digit numbers. Emphasis on both receptive and expressive fluency.

ASL 122 AMERICAN SIGN LANGUAGE 1 (Formerly CMST 122)
Units: 4.0 - 64-72 hours lecture. CSU, UC. (No prerequisite)

An introduction to American Sign Language as it is used with deaf community. Students will study the basic structure and development of the language as well as deaf culture. Emphasis is placed on both receptive and expressive skills.

ASL 123 AMERICAN SIGN LANGUAGE II (Formerly CMST 123)
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: ASL 122)

A continuation in the study of American Sign Language as it is used within the deaf culture. Instruction is provided in the basic structure of the language. Emphasis is placed on both receptive and expressive skills.

ASL 124 AMERICAN SIGN LANGUAGE III (Formerly CMST 124)
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: ASL 123)

Continuation of development of skill in American Sign Language with emphasis on an intermediate level of comprehension and expression. Students will progress in their study of the structure and grammar of American Sign Language as well as deaf culture. Emphasis is placed on both receptive and expressive skills.

ASL 125 AMERICAN SIGN LANGUAGE IV (Formerly CMST 125)
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisites: ASL 124)

A continuation in the study of American Sign Language and the deaf community including its history and culture. Emphasis will be on receptive and expressive skills as they relate to narrating life events. Students will learn techniques such as role-shifting, use of space and classifiers in addition to appropriate non-manual

behaviors. This course will prepare the student for entrance into an interpreter training program.

ASL 126 INTRODUCTION TO INTERPRETING (Formerly CMST 120)
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: ASL 125. Grade Option)

This course introduces the field of American Sign Language interpreting and includes models of interpreting, ethical principles, and its history and development in modern times. Attention will be given to the development of necessary processing skills for consecutive interpretation.

ANATOMY

See Biology

ANIMATION

See **Media Arts** and **Computer Integrated Design and Graphics**

ANTHROPOLOGY

Training in anthropology will prepare one for any career that involves working on the interface between 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.

Career Opportunities
Careers in anthropology are diverse, specialized, and related to the various areas of concentration which are offered at four-year college and universities: Listed below are just a few examples:

Archaeologist - Federal/State/Private
Cultural Resource Management
Environmental Impact Analyst
Expedition Guide
Forensic Anthropologist
Health Researcher
Museum Curator/Exhibit Designer
Population Analyst
Urban Planner Analyst

Faculty
Full Time
Richard Cerreto

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

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 in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Anthropology major
- **University of California, Riverside**
  Anthropology major

ANTHROPOLOGY COURSES

ANTH 101 INTRODUCTION TO PHYSICAL ANTHROPOLGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

Biological anthropology explores the biological development and adaptations of humans in relation to their different natural environments through the biological approach. 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/technological development from the earliest to modern humans.

ANTH 101L PHYSICAL ANTHROPOLOGY LABORATORY
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Co-requisite: ANTH 101. Grade Option) This course may be taken two times.

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.

ANTH 102 INTRODUCTION TO CULTURAL ANTHROPOLGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

Cultural anthropology explores the social aspect of being human, in context with the multicultural approach. This course provides 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 and its effect on culture groups worldwide is outlined.

ANTH 103 INTRODUCTION TO ARCHAEOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

Archaeology is the study of human groups in the context of their historic and prehistoric past. Through excavation of archaeology sites and laboratory analysis, archaeologists investigate and reconstruct the time frame, the life activities, and technological changes of ancient cultures. This course provides information on the history and development of archaeology, the archaeological methods used to excavate sites, how archaeologists relate the artifacts and other remains found on the sites to human behavior, how the sites within a region relate to each other and the natural surroundings, and the theoretical framework that helps to explain the behavioral and technological changes through time.

ANTH 103F ARCHAEOLOGY FIELD CLASS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade Option.)

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.

ANTH 103L ARCHAEOLOGY LAB
Units: 3.0 - 16-18 hours lecture and 96-108 hours laboratory. (No prerequisite. Grade Option)

This course is designed as a laboratory class that compliments the Archaeology Field Course. The class introduces the students to laboratory work in archaeology, providing hands-on experience. Students learn to process the materials collected from the field class archaeology site, from cleaning and identification to their analysis.

ANTH 106 INTRODUCTION TO LINGUISTIC ANTHROPOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite. Grade Option)

This course examines human language systems and their significance in social context. Topics that will be covered include the origins and evolution of language; nonhuman primate communication systems; language classification; language structure; semantic systems; the social and cultural function of language; language acquisition; language change and the reconstruction of language at earlier stages.

ANTH 107 INTRODUCTION TO FORENSIC ANTHROPOLOGY AND ARCHAEOLOGY
Units: 3.0 - 32-36 hours lecture and 24-27 hours laboratory. (No prerequisite. Grade Option)

This course is designed to introduce the student to the specialty fields of forensic anthropology and forensic archaeology. The student will become familiar with archaeological field methods and many of the basic techniques used by forensic anthropologists.

ANTH 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC

ANTH 151 WORLD DANCE
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU, UC (No prerequisite) This course may be taken four times.

This course is designed to introduce students to the elements of dances and dance techniques from specific regional areas, cultures, or ethnic groups. This introduction will include the geographic, historic, social and aesthetic factors that have shaped the development and function of such movement. Dances from at least three culture areas will be used as examples during a semester, and will vary from semester to semester. See cross listing for PE 151.

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 preparation and presentation of their work.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org, or, for private schools, www.aiccu.edu. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- UC campuses offering Architecture include Berkeley and UCLA
- CSU campuses that offer Architecture include Pomona and San Luis Obispo
- Private schools include University of Southern California (USC) and Woodbury University

ART AND DESIGN

Art and design are an integral part of our daily lives as creative expression and as commercial applications. Humankind is reflected in great works of art throughout time, depicting our deeds and actualization. A study in art and design will lead to the development of a diverse range of career possibilities that span from self-expression to commercial design.

Students may choose a program leading to an AA degree, and courses in art are transferable to four-year colleges. Consult with the department chairperson for specialized areas of interest.

Career Opportunities
Advertising
Architectural Designer
Commercial Artist/Graphic Designer
Computer Graphics/Imaging/Animation
Film Maker
Interior Designer
Medical Illustrator
Photographer/Fine-Art, Commercial
Theatre Set Designer
Video Director

Faculty
Full time
Frank Foster
Richard Ripley
Brent Wood

Degrees and Certificates Awarded
Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree awarded with a major in Art. Art courses may be used to fulfill requirements for an Associate of Arts degree with a major in Fine Arts or Liberal Arts. See Fine Arts or Liberal Arts for degree requirements for these majors. ART 138 (Cooperative Education) may be used as elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Art major
- **University of California, Riverside**
  Art major

ART AND DESIGN COURSES

ART 51 MACROMEDIA FLASH APPLICATION DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

This class introduces web application design and development to students with no prior programming experience. Students will be instructed in and practice creating media rich web applications. Instruction will cover using screens, built in component and behaviors. The course will introduce Action Script programming. At the end of the course students will be able to design and construct Flash applications. This class is the second class in a three-part series.

ART 101 SURVEY OF ART HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC.
(No prerequisite)

An historical survey of significant art from prehistoric times through the fourteenth century.

ART 102 SURVEY OF ART HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC.
(No prerequisite)

An historical survey of significant art from the Renaissance through modern times.

ART 103 THE ART OF AMERICAN CINEMA
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite.)

This class traces the development of cinema in America from silent to contemporary films. Our study will address the evolution of moving images as an expression of art and meaning.

ART 104 FILM AS A ART FORM
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

ART 105 INTRODUCTION TO ART
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course is a general introduction to the visual arts, its nature, vocabulary, media, and history. The course examines the historical and contemporary value of art to both the individual and society. Consideration will also be given to a study of the organization and component parts of the visual art and the various media used in the making of art.

ART 106 ART CONCEPTS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

This illustrated lecture course will introduce students to the practice, theory and history of art. Art's impact upon

our contemporary society as well as its reflection of history and meaning will be investigated.

ART 107 THE ART AND LIFE OF GREECE
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit pending). (No prerequisite.)

This is an illustrated lecture course focusing on art of the ancient Greek world from c. 1100 BCE to the 1st Century. Emphasis is placed upon analysis of the various styles of Greek art from the formative period of Hellenism. The art works are studied and analyzed within the cultural/historical context of the Greek world including mythology, philosophy, and social structure as these relate to the development of Greek art.

ART 108 THE ART AND LIFE OF ITALY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite.)

This is an illustrated lecture course focusing on the arts of Ancient Rome and its influence upon the development of the Western art world. This study focuses on the role of the Etruscans in the development of the early arts of the Roman Empire including the changes brought by the influence of Christianity with a look at the later development of the arts of Italy.

ART 109 SURVEY OF AFRICAN AMERICAN ART
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

This course will survey the arts of the African peoples in diaspora from traditional African arts to contemporary times. Focus will be on identification of artists, art styles within their historical, cultural, political framework and exploration of aesthetic preference.

ART 112 DESIGN I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite) This course may be taken four times.

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.

ART 113 DESIGN II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

A continuation of Art 112 utilizing the same principles of design expanded to color and three- dimension. Critiques and lectures will focus student's evaluative skills in applying comprehension of art history to contemporary concepts of design.

ART 115 WATER-BASED MEDIA
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite) This course may be taken two times.

An introduction to basic water-based painting media and the methods used for applying pigment to paper. Color theory, design principles and a comprehensive history of the medium will be included.

ART 120 ACRYLIC PAINTING I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Recommended preparation: ART 112 or ART 113 or ART 125.) This course may be taken two times.

This course is an introduction to acrylic painting methods and techniques with an emphasis on composition, color, and application of general design principles.

ART 121 ACRYLIC PAINTING II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Recommended preparation: ART 120.) This course may be taken two times.

This is an intermediate course in acrylic painting methods and techniques with continuing study of the theory and practice of painting.

ART 122 LIFE DRAWING I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU,UC. (No prerequisite. ART 125 or ART 126 recommended.) This course may be taken four times.

A beginning life drawing course emphasizing the study and analysis of the human form using basic art materials and fundamental drawing concepts.

ART 123 LIFE DRAWING II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Recommended preparation: ART 125 or ART 126, or ART 122.) This course may be taken two times.

An intermediate life drawing course emphasizing the continued study and analysis of the human form using drawing of the human figure from life.

ART 124 ANATOMY FOR LIFE DRAWING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite) This course may be taken four times.

Critical dissection of anatomical and physiological studies incorporated into the fine art of life drawing. Repetition of this course provides skill development.

ART 125 DRAWING I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Grade option). This course may be taken four times.

This course is an introduction to principles and techniques in drawing. Students will gain a working knowledge of line, shape, perspective, proportion, volume, and composition. Students will learn how to look at, evaluate and present art work as well as be introduced to traditional and contemporary drawing with an emphasis on the development of observational skills and creative thinking.

ART 126 DRAWING II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Recommended preparation: ART 125.) This course may be taken two times.

An intermediate drawing course emphasizing development of skills learned in Drawing I with an emphasis on personal expression, thematic development and the use of color. A variety of drawing media will be explored.

ART 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC

ART 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

ART 132 ADVERTISING ART
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

This course will present the elements and principles of advertising design and illustration.

ART 133 DIGITAL IMAGING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. Recommended preparation: ART 112 or ART 113.)

An introductory course that explores a fine arts approach to computer generated imaging using Adobe Photoshop.

ART 134 THE ART OF WEB DESIGN
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU,UC. (No prerequisite)

An overview of industry standard software used for creating web pages. This course does not focus on HTML or scripting language but is focused on the development of effective communications design.

ART 135 INTRODUCTION TO TIME BASED ART/COMMUNICATION
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

This course covers the fundamental elements of creating and editing video using computer technology. Student will be taught how to use computer software to create dynamic visual content as it relates to artistic expression.

ART 136 PRINTMAKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Recommended preparation: ART 125 or courses in drawing.)

This is an introductory course in the principles, techniques, practice and historical development of printmaking. Students will be exposed to the practice of printmaking as an original art form. Students will gain a working knowledge of relief printmaking techniques, including Woodcut, Linocut, Intaglio printmaking (drypoint), Collagraph and Monotype printing. Students will learn how to observe, create, present and evaluate prints in a critical manner.

ART 138 COOPERATIVE EDUCATION
See Cooperative Education Listing (1-8 units). CSU

ART 141 SCULPTURE I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite) This course may be taken two times.

Students explore the principles of three-dimensional forms in space in order to develop an understanding of the relationship between form, space and materials and process. In order to construct their own ideas in space, students will become familiar with a variety of materials, which may include clay, metal, wood and stone.

ART 142 SCULPTURE II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Recommended preparation: ART 141 or ART 112 or ART 113.) This course may be taken two times.

Students explore the traditional materials and techniques of sculpture such as building armatures, sculpting in wax, plaster and clay, mold making methods, and surface treatments for the sculptural pieces which may include stains, patina, antiquing and waxing of plaster and applying slips and glazes to clay.

ART 150 OIL PAINTING I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite.) This course may be taken two times.

A beginning course in painting using oil color. Repetition of this course provides the opportunity for increased skill development.

ART 151 INTERMEDIATE OIL PAINTING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite) This course may be taken four times.

There will be continuation of techniques covered in Art 150 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.

ART 160 SURVEY OF VISUAL COMMUNICATION TECHNOLOGIES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

An overview of digital design software used by graphic designers. Students are given the opportunity to sample professional digital design tools while applying the fundamentals of design.

ASTRONOMY COURSES

ASTR 101 DESCRIPTIVE ASTRONOMY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

ATHLETICS

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

To meet this philosophic commitment, Victor Valley College athletic offerings include football, softball, men's and women's tennis, women's volleyball, men's and women's basketball, wrestling, golf, men's and women's soccer, men's and women's cross country, men's and women's track and field, and baseball.

Victor Valley College is a member of the Foothill Athletic Conference and also competes with other community college conferences, California State and University junior varsity teams, private colleges, and service teams. A student must be enrolled in 12 units to participate in the intercollegiate athletic program. Student athletes are granted up to two years of eligibility per sport but must complete 24 units between seasons of competition with a "C" or better grade average in order to be eligible for the second year.

There are other factors that are essential in determining eligibility, and athletes should consult with the Eligibility Evaluator regarding eligibility matters. All varsity athletic classes meet 10 laboratory hours per week for 3 units. CSU, UC (UC credit limitation).

MEN'S AND WOMEN'S SPORTS BY SEASON

Fall	Spring
Basketball (M,W)	Basketball (M,W)
Cross Country (M,W)	Baseball (M)
Football (M)	Golf (M)
Soccer (M,W)	Softball (W)
Volleyball (W)	Tennis (M,W)
Wrestling (M)	Track and Field (M,W)

ATHLETICS COURSES

ATHL 120 VARSITY BASEBALL
Units: 3.0 - (No prerequisite. Recommended preparation: ATHL 120P) This course may be taken four times.

Students will learn the intermediate and advanced skills, rules, and strategies for competition in baseball. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 120P PREPARATION FOR INTERCOLLEGIATE MEN'S BASEBALL
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken four times.

This Men's Baseball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 121 VARSITY BASKETBALL (MEN)
Units: 1.5 - (No prerequisite. ATHL 121P recommended) 72-81 hours lab. This course may be taken four times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in basketball. CSU, UC (UC maximum credit allowed: 4 units)

ATHL121P PREPARATION FOR INTERCOLLEGIATE MEN'S BASKETBALL
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken four times.

This Men's Basketball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 122 VARSITY BASKETBALL (WOMEN)
Units: 1.5 - (No prerequisite. ATHL 122P recommended) 72-81 hours lab. This course may be taken four times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in basketball. CSU,UC (UC maximum credit allowed: 4 units)

ATHL 122P PREPARATION FOR INTERCOLLEGIATE WOMEN'S BASKETBALL
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Women's Basketball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU(UC pending approval)

ATHL 123 CROSS COUNTRY (WOMEN)
Units: 3.0 - (No prerequisite. ATHL 123P recommended) This course may be taken two times.

A cross country course designed to develop the knowledge, skills and strategy for the serious and recreational competitive athlete in collegiate long distance running. The course is designed to emphasize competition and will help the athlete achieve a higher level of competitive ability through instruction of skills, techniques, strategy and personal evaluation during or after competition. The students will be given an opportunity to compete at a wide range of competitive levels. CSU, UC.

ATHL 123P PREPARATION FOR INTERCOLLEGIATE WOMEN'S CROSS COUNTRY
Units: 05.-1.0 - (No prerequisite. Grade option) This course may be taken two times.

This Women's Cross Country course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 124 VARSITY FOOTBALL
Units: 3.0 - (No prerequisite. ATHL 124P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in football. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 124P PREPARATION FOR INTERCOLLEGIATE FOOTBALL
Units: 05.-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Football course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 125 VARSITY GOLF (MEN)
Units: 3.0 - (No prerequisite. ATHL 125P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in golf. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 125P PREPARATION FOR INTERCOLLEGIATE GOLF
Units: 0.5-1.0 - (No prerequisite) This course may be taken two times.

This Golf course is designed to satisfy the interest, development and needs of the highly skilled student

athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 126 VARSITY SOCCER (WOMEN)
Units: 3.0 – (No prerequisite. ATHL 126P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in soccer. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 126P PREPARATION FOR INTERCOLLEGIATE WOMEN'S SOCCER
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Women's Soccer course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU (UC pending approval).

ATHL 127 VARSITY SOFTBALL
Units: 3.0 - (No prerequisite. ATHL 127P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in softball. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 127P PREPARATION FOR INTERCOLLEGIATE WOMEN'S SOFTBALL
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Women's Softball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 128 VARSITY TENNIS (WOMEN)
Units: 3.0 - (No prerequisite. ATHL 128P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in tennis. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 128P PREPARATION FOR INTERCOLLEGIATE WOMEN'S TENNIS
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Women's Tennis course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 129 VARSITY TENNIS (MEN)
Units: 3.0 - (No prerequisite. ATHL 129P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in tennis. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 129P PREPARATION FOR INTERCOLLEGIATE MEN'S TENNIS
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Men's Tennis course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 130 VARSITY VOLLEYBALL
Units: 3.0 - (No prerequisite. ATHL 130P recommended) This course may be taken two times.

Students will learn the intermediate/advanced skills, rules, and strategies for competition in volleyball. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 130P PREPARATION FOR INTERCOLLEGIATE VOLLEYBALL
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Volleyball course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 132 VARSITY WRESTLING (MEN)
Units: 3.0 - (No prerequisite. Experience in high school or club level competition recommended.) This course may be taken two times.

A wrestling course designed to develop the knowledge, wrestling skills and strategy for the serious and recreational competitive athlete in collegiate, Greco-Roman and Freestyle wrestling. 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. Recommended preparation: CSU, UC credit pending (UC maximum credit allowed: 4 units)

ATHL 132P PREPARATION FOR INTERCOLLEGIATE WRESTLING
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken four times.

This Wrestling course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 133 MEN'S CROSS COUNTRY
Units: 3.0 - (No prerequisite) This course may be taken four times.

A cross country course designed to develop the knowledge, skills and strategy for the serious and recreational competitive athlete in collegiate long distance running. The course is designed to emphasize competition and will help the athlete achieve a higher level of competitive ability through instruction of skills, techniques, strategy and personal evaluation during or after competition. Students will be given an opportunity to compete. CSU, UC.

ATHL 133P PREPARATION FOR INTERCOLLEGIATE MEN'S CROSS COUNTRY
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken four times.

This Men's Cross Country course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 134 TRACK AND FIELD (WOMEN)
Units: 3.0 - (No prerequisite. ATHL 134P recommended) This course may be taken two times.

Students will demonstrate knowledge of rules, meet organizations, proper mechanics of running, strategies necessary for competition in collegiate track and selected field events. Students must demonstrate a desire to learn, train, accept challenges, and excel in collegiate track and field. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 134P PREPARATION FOR INTERCOLLEGIATE WOMEN'S TRACK AND FIELD
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Women's Track and Field course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 135 TRACK AND FIELD (MEN)
Units: 3.0 - (No prerequisite. ATHL 135P recommended) This course may be taken two times.

Students will demonstrate knowledge of rules, meet organization, proper mechanics of running, strategies necessary for competition in collegiate track and selected field events. Students must demonstrate a desire to learn, train, accept challenges, and excel in collegiate track and field. CSU, UC (UC maximum credit allowed: 4 units)

ATHL 135P PREPARATION FOR INTERCOLLEGIATE MEN'S TRACK AND FIELD
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

This Men's Track and Field course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 140 VARSITY SOCCER (MEN)
Units: 3.0 - (No prerequisite. ATHL 140P recommended) This course may be taken two times.

Students will demonstrate knowledge of rules, intermediate/advanced skills, and offensive and defensive strategies necessary to compete at collegiate level for soccer. CSU, UC.

ATHL 140P PREPARATION FOR INTERCOLLEGIATE MEN'S SOCCER
Units: 0.5-1.0 - (No prerequisite. Grade Option) This course may be taken two times.

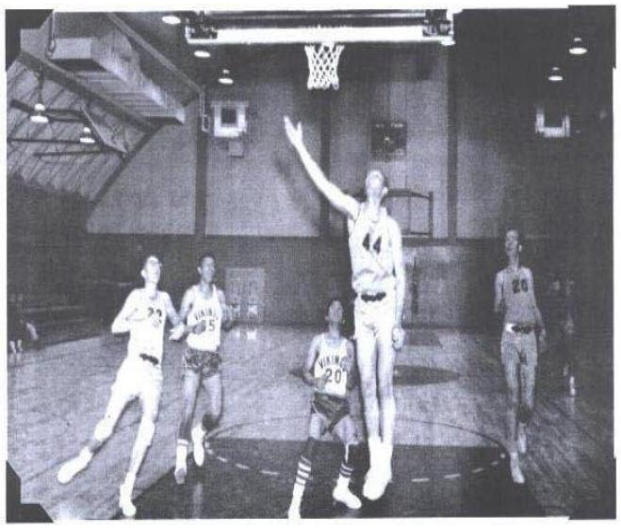
This Men's Soccer course is designed to satisfy the interest, development and needs of the highly skilled student athlete. It will provide students with high level instruction and experience required for intercollegiate competition. CSU

ATHL 143 SPORTS PERFORMANCE TRAINING
Units: 1.0 - (No prerequisite. Grade Option) CSU. This course may be taken four times.

Sports performance training provides basic plyometric techniques which will allow students in athletics to dramatically increase their speed, strength, and

stamina. Students will learn to use this training as preparation for athletic performance and winning mindsets.

VVC Basketball Team



AUTOMOTIVE TECHNOLOGY

Mission Statement
It is the mission of the Automotive Department of Victor Valley Community College to provide quality automotive instruction to a diverse community of students; the array of courses offered shall serve the educational needs of the beginning student as well as the employed professional. Through industry input the department shall strive to create and maintain the most up to date curriculum based on current industry trends. The department will acquire and maintain the appropriate equipment that will augment the current course curriculum.

Each year the Bureau of Labor Statistics lists the need for Automotive Technicians as one of the nation's highest. This shortage of well-trained technicians has been created by the technological advances caused by the addition of the computerized engine controls and the need to control automotive pollution.

VVC's automotive program is designed to give the student a thorough and complete knowledge of the basics of the modern automobile. The program is capable of training the student to entry-level performance on the latest industry approved equipment.

Career Opportunities
Federally recognized ASE certification in eight (8) categories
Parts Salesperson
Repair Shop Owner or Operator
State Certified Pollution Control Technician
Tune-up Technician

Faculty
Full time
Lee Bennett
Dan Rowland
John Sweet

Degrees and Certificates Awarded
Associate in Science, Automotive Technology
Automotive Brake and Suspension Specialist Certificate
Automotive Drivability Specialist Certificate
Automotive Inspection and Maintenance Technician Certificate
Automotive Repair Shop Manager Certificate
Automotive Specialist I Certificate
Automotive Specialist II Certificate
Automotive Technician Certificate
Automotive Transmission Specialist Certificate
Automotive Window Tinting Technician Certificate
Basic Inspection Area Smog Certificate
Collision Repair Technician Certificate
Engine Machinist Specialist Certificate
Enhanced Inspection Area Smog Technician Certificate
Heavy Duty Diesel Truck Lubrication and Inspection Specialist Certificate
Heavy Duty Truck Brake Repair Specialist Certificate

Motorcycle Technician Repair Certificate
Recreational Vehicle Service and Repair Technician Certificate
Small Engine Repair Specialist Certificate

Certificate Programs

AUTOMOTIVE BRAKE AND SUSPENSION SPECIALIST CERTIFICATE

Units Required: 8.0

All of the following must be completed with a grade of "B" or better:

These classes can be taken in any order.

AUTO 60	Automotive Suspension and Alignment	4.0
AUTO 61	Automotive Brakes	4.0

AUTOMOTIVE DRIVEABILITY SPECIALIST CERTIFICATE

Units Required: 8.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order.

AUTO 79B	Ignition and Fuel Systems	4.0
AUTO 80A	Automotive Computers, Electronics, and Electrical Systems	4.0

AUTOMOTIVE INSPECTION AND MAINTENANCE TECHNICIAN CERTIFICATE

Units Required: 6.0

All of the following must be completed with a grade of "B" or better:

These classes can be taken in any order.

AUTO 79A	Basic Tune Up	2.0
AUTO 58	Automotive Lubrication Technician	2.0
AUTO 59	Automotive Tire Technician	2.0

AUTOMOTIVE REPAIR SHOP MANAGER CERTIFICATE

Units Required: 11.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order.

AUTO 50	Introduction to Automotive Technology	4.0
AUTO 77.0	Automotive Service Writer and Shop Management or concurrently with AUTO 50	2.0
AUTO 77L*	Automotive Service Writer and Shop Management Lab (2 times) or concurrently with AUTO 77	4.0
BET101	Beginning Keyboarding/Typing can be taken anytime during the program	1.0

*Note: AUTO 77L must be completed two times

AUTOMOTIVE SPECIALIST I CERTIFICATE (ENGINE REPAIR, DRIVE TRAIN, CHASSIS)

Units Required: 24.0 units minimum

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.

All of the following must be completed with a grade of "B" or better:

These classes can be taken in any order.

AUTO 51	Automotive Engines and Drive Trains	12.0
AUTO 57	Brakes, Wheel Alignment, and Suspension	12.0

AUTOMOTIVE SPECIALIST II CERTIFICATE (ENGINE PERFORMANCE, ELECTRONICS [AUTO] POLLUTION CONTROL)

Units Required: 24.0

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.

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 79	Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TECHNICIAN CERTIFICATE (ENGINE PERFORMANCE, ENGINE REPAIR, ELECTRONICS [AUTO], DRIVE TRAIN, POLLUTION CONTROL, CHASSIS)

Units Required: 48.0

All of the following must be completed with a grade of "B" or better:

This certificate is obtained upon successful completion of Automotive Specialist I and II and provides the student excellent entry-level skills in a wide range of automotive repair fields.

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

These classes should be taken in the following order:

AUTO 51	Automotive Engines and Drive Trains	12.0
AUTO 57	Brakes, Wheel Alignment, and Suspension	12.0
AUTO 79	Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TRANSMISSION SPECIALIST CERTIFICATE

Units Required: 12.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 55	Standard Transmission Overhaul	5.0
AUTO 56A	Electronic Computer Transmission Controls	2.0
AUTO 56	Automatic Transmission Overhaul	5.0

AUTOMOTIVE WINDOW TINTING TECHNICIAN CERTIFICATE

Units Required: 8.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 94A	Automotive Window Tinting I	4.0
AUTO 94B	Automotive Window Tinting II	4.0

BASIC INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Units Required: 16.0

All of the following must be completed with a grade of "B" or better:

These classes can be taken in any order:

AUTO 80	Automotive Computers, Electronics, and Electrical Systems	12.0
AUTO 83D	Basic Area California Clean Air Car Course	4.0

COLLISION REPAIR TECHNICIAN CERTIFICATE

Units Required: 14.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 91A	Auto Body Repair I	4.0
AUTO 91B	Auto Body Repair II	5.0
AUTO 92	Auto body Damage Estimating I	1.0
AUTO 91L*	Automotive Auto Body Laboratory	2.0
WELD 58A	Gas Metal Arc Welding any time after AUTO 91A	2.0

*Note: AUTO 91L must be completed two times.

ENGINE MACHINIST SPECIALIST CERTIFICATE

Units Required: 12.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 52	Cylinder Head Specialist	4.0
AUTO 53	Cylinder Block Specialist	4.0
AUTO 54	Cylinder Assembly Specialist	4.0

ENHANCED INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

Unts Required: 13.5

All of the following must be completed with a grade of "B" or better:

These classes can be taken in any order:

AUTO 80	Automotive Computers, Electronics and Electrical Systems	12.0
AUTO 84	Advanced California Clean Air Car Course	1.5

HEAVY DUTY DIESEL TRUCK LUBRICATION AND INSPECTION SPECIALIST CERTIFICATE

Units Required: 4.0

All of the following must be completed with a grade of "B" or better:

AUTO 65	Heavy Duty Diesel Truck Lubrication and Inspection Technician	4.0

HEAVY DUTY TRUCK BRAKE REPAIR SPECIALIST CERTIFICATE

Units Required: 10.0

All of the following must be completed with a grade of "B" or better:

AUTO 67	Heavy Duty Truck Air Brakes	4.0
AUTO 68	Heavy Duty Truck Hydraulic	6.0

IMPORT SPORT TUNING AND CUSTOMIZATION CERTIFICATE

Units Required: 16.0

All of the following must be completed with a grade of "B" or better:

AUTO 86.1	Import Sport Tuning Engine Performance	4.0
AUTO 86.2	Import Suspension Sport Tuning	4.0
AUTO 86.4	Aftermarket Electrical Accessories	4.0
AUTO 86.5	Import Body Customizing	4.0

MOTORCYCLE REPAIR TECHNICIAN CERTIFICATE

Units Required: 16.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 71	Motorcycle Engine Repair	4.0
AUTO 73	Motorcycle Tune Up and Maintenance	4.0
AUTO 75	Motorcycle Electrical and Ignition System Repair	4.0
AUTO 74	Motorcycle Fuel and Emission System Repair	4.0

RECREATIONAL VEHICLE SERVICE AND REPAIR TECHNICIAN CERTIFICATE

Units Required: 17.0

All of the following must be completed with a grade of "B" or better:

These classes should be taken in the following order:

AUTO 91A	Auto Body Repair I	4.0
AUTO 85B	Automotive Electrical/Electronic Systems	1.0
CTMF 126A	Woodworking any time after AUTO 91A	3.0
CT 122A	Heating and Air Conditioning any time after AUTO 91A	4.0
CTMT 122	Electrical Repair	3.0
WELD 50	Introduction to Welding any time after AUTO 91A	2.0

SMALL ENGINE REPAIR SPECIALIST CERTIFICATE

Units Required: 3.0

All of the following must be completed with a grade of "B" or better:

AUTO 70	Small Engine Repair	3.0

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

Transfer
Not a transfer major.

AUTOMOTIVE COURSES

AUTO 50 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with a basic knowledge of automotive systems and components. Information covered will serve as a foundation and prerequisite for advanced automotive classes. Topics covered will include safety, tool and shop equipment uses, industry practices, technician certification, theory and design of the major automotive systems.

AUTO 50.1 EVOLUTION OF THE AUTOMOBILE
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option)

This course will explore changes to the automobile relating to design, power plants, creature comforts, and environmental impact. Material covered will include changes each decade and how these were influenced.

AUTO 50.2 AMERICAN CAR CULTURE
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

Ever since the car was invented Americans have had a love affair with their cars as well as where the cars take us. This course investigates road side attractions, automotive trends, diners, gas stations and Route 66.

AUTO 50.5 BASIC AUTOMOTIVE SERVICE AND MAINTENANCE
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course covers the basic functions of all the automotive systems as well as key parts of the entire automotive industry. Topics covered will include minor preventive maintenance procedures.

AUTO 51 AUTOMOTIVE ENGINES AND DRIVE TRAINS
Units: 12.0 - 128-144 hours lecture and 192-216 hours laboratory. (Prerequisite: AUTO 50 with a minimum grade of "C")

This course covers techniques used by the Automotive Industry to diagnose and repair engine and drive train malfunctions, cylinder head, cylinder block, and drive train systems. Instruction will cover the diagnosis and repair of engine and drive train systems, cylinder heads, cylinder blocks, rotating assemblies, and basic drive train as they apply to the automobile.

AUTO 51A ENGINE REPAIR
Units: 6.0 - 72-81 hours lecture and 72-81 hours laboratory. (Prerequisite: AUTO 50 with a minimum grade of "C" or equivalent experience.)

This course provides the student with the knowledge necessary to diagnose and repair engines. Information covered will include diagnosis and repair of cylinder head and valve train, engine block, lubrication, cooling systems and general engine assembly.

AUTO 52.0 AUTOMOTIVE CYLINDER HEAD MACHINIST
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (Prerequisite: AUTO 51 or equivalent)

This course covers diagnosis and repair of cylinder heads and their components.

AUTO 53.0 AUTOMOTIVE MACHINIST/CYLINDER BLOCKSPECIALIST
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Recommended preparation: AUTO 51 or equivalent.)

This course covers diagnosis and repair of the components of cylinder block; cylinder bores, oil galley, crank shaft bores, and camshaft bores. Related parts will be disassembled inspected and determination made of the serviceability of existing parts.

AUTO 54.0 AUTOMOTIVE MACHINIST/ENGINE ASSEMBLY SPECIALIST
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Recommended preparation: AUTO 51 or equivalent)

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.

AUTO 55.0 AUTOMOTIVE STANDARD TRANSMISSION AND DIFFERENTIAL OVERHAUL
Units: 5.0 -72-81 hours lecture and 72-81 hours laboratory. (No prerequisite.)

This course covers diagnosis and repair of the components of standard transmission systems, and differential systems, gears, synchronizers, bearings, clutches, and electronic controls. Standard transmissions and related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for replacement parts will be established as the components are disassembled, inspected and reassembled.

AUTO 56.0 AUTOMATIC TRANSMISSION OVERHAUL
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. (No prerequisite. Recommended preparation: AUTO 51)

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.

AUTO 56A TRANSMISSION COMPUTER SYSTEMS
Units: 2.0 - 24-27 hours of lecture and 24-27 hours laboratory. (Prerequisite: AUTO 56 with a minimum grade of "C".)

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.

AUTO 57.0 AUTOMOTIVE BRAKES, SUSPENSION, AND WHEEL ALIGNMENT
Units: 12.0 - 128-144 hours lecture and 216-243 hours laboratory. (Prerequisite: AUTO 50 with a minimum grade of "C".)

This course covers diagnosis and repair and maintenance of the brake and suspension systems; drum and disc brakes, brake hydraulics, power assist units, front and rear suspension systems, shocks and struts, steering linkages and power steering systems. All aspects of alignments will be covered including two and four wheel and struts on different alignment apparatuses. Maintenance of all parts of the brake and suspension systems will be covered.

AUTO 57.1 AUTOMOTIVE BRAKES, THEORY AND FUNCTION
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course covers safety practices, theory, applications, braking systems, and antilock brakes.

AUTO 58 AUTOMOTIVE LUBRICATION TECHNICIAN
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No prerequisite)

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.

AUTO 59.0 AUTOMOTIVE TIRE TECHNICIAN
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No prerequisite)

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.

AUTO 60 AUTOMOTIVE SUSPENSION AND ALIGNMENT
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite).

This course covers diagnosis and repair of the components of automotive suspension system. All related parts of the suspension and steering are inspected and determination of serviceability is made. Alignment of the front and rear of the vehicles will be covered, both manual and computer alignment.

AUTO 61.0 AUTOMOTIVE BRAKES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Recommended preparation: AUTO 57.)

This course covers diagnosis and repair of the components of automotive brake systems: basic hydraulics, drum brakes, disc brakes, turning drums and rotors, 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.

AUTO 62 AUTOMOTIVE DETAILING
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course provides students with the knowledge and skills necessary to correctly perform an automotive detail. Topics covered will include exterior paint polishing and treatment, interior and upholstery cleaning techniques, proper chemical and equipment usage, and dealership porter responsibilities.

AUTO 63.0 INTRODUCTION TO DIESEL ENGINE REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (Prerequisite: AUTO 50)

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.

AUTO 63A ADVANCED DIESEL ENGINE REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (Prerequisite: AUTO 63.0)

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.

AUTO 63.5 INTRODUCTION TO DIESEL TECHNOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with a basic knowledge of diesel systems and components. Information covered will serve as a foundation and prerequisite for advanced diesel classes. Topics covered will include safety, tool and shop equipment uses, industry practices, technician certification, theory and design of the major diesel systems.

AUTO 64.0 MEDIUM/HEAVY DUTY TRUCK SUSPENSION AND STEERING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course will provide students with the knowledge and techniques used by the trucking industry to diagnose, adjust, and repair medium/heavy duty truck suspension and steering systems. Instruction will cover theory, inspection, maintenance, and repair of suspension and steering systems.

AUTO 65.0 HEAVY DUTY DIESEL TRUCK LUBRICATION AND INSPECTION TECHNICIAN
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

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.

AUTO 65.2 FUNDAMENTALS OF HEAVY DUTY TRUCK AND OFF HIGHWAY EQUIPMENT HYDRAULICS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

Topics covered include introduction to hydraulic systems components and theory of operation, entry level skills to disassemble, inspect, reassemble and test hydraulic components and understand the relationship between component failure and system operation.

AUTO 65.3 ADVANCED HEAVY DUTY TRUCK AND OFF HIGHWAY EQUIPMENT HYDRAULICS
Units: 6.0 - 64-72 hours lecture and 96-108 hours laboratory. (Prerequisite: AUTO 65.2. Grade Option)

This course covers advanced hydraulic systems components and theory of operation, entry level skills to disassemble, inspect, reassemble and test hydraulic components and understand the relationship between component failure and system operation, hydrostatic motors, pumps, valves, and inspection and repair.

AUTO 65.4 SERVICE AND REPAIR MOBILE HYDRAULICS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

This course covers inspection and repair of mobile hydraulic systems, theory of operation, entry level skills to disassemble, inspect, reassemble and test mobile hydraulic components, and the relationship between component failure and system operating hydrostatic motors, pumps, and valves.

AUTO 65.5 FUNDAMENTALS OF HEAVY EQUIPMENT SYSTEMS REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

Introduction to services and repair of off road dirt moving heavy equipment and agricultural equipment. Designed to meet the needs of off road heavy equipment technicians.

AUTO 65.6 ADVANCED HEAVY EQUIPMENT SYSTEMS REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

Advance service and repair of off road dirt moving heavy equipment and agricultural equipment. Designed to meet the needs of off road heavy equipment technicians.

AUTO 65.9 FORKLIFT PREVENTATIVE MAINTENANCE AND REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers techniques used by the warehousing industry to perform routine preventative maintenance and repairs on forklifts. Instruction will cover changing fluids, lubrication, preventive maintenance safety inspections.

AUTO 67.0 HEAVY DUTY TRUCK AIR BRAKES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers the techniques used by the trucking industry to diagnose and repair heavy duty truck air brake systems. Instruction will cover theory, inspection, maintenance, and repair of air brake systems.

AUTO 68.0 HEAVY DUTY TRUCK HYDRAULIC BRAKES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers the techniques used by the trucking industry to diagnose and repair heavy duty truck hydraulic brake systems. Instruction will cover theory, inspection, maintenance, and repair of hydraulic brake systems.

AUTO 70.0 SMALL ENGINE REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory.(No prerequisite)

This class covers the fundamentals of small internal combustion engines and their uses in various forms of equipment and light vehicles. Topics covered will include, but not limited to, theory of small internal

combustion engines, troubleshooting, repair and small engine applications.

AUTO 71.0 MOTORCYCLE ENGINE REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to diagnose and repair motorcycle engines/transmissions. Information covered will include engine diagnosis, disassembly and inspection, valve reconditioning, bearing replacement, piston and ring service, and engine reassembly.

AUTO 72L MOTORCYCLE LABORATORY
Units: 1.0 - 48-54 hours laboratory. (No prerequisite)
This course may be taken four times.

A laboratory class to develop skills in motorcycle engine repair, tune up, and general maintenance procedures.

AUTO 73.0 MOTORCYCLE SERVICE TUNE UP AND MAINTENANCE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to perform motorcycle tune up and maintenance. Information covered will include chassis and suspension systems, servicing schedules and procedures, tire care, tune up schedules and procedures, wheel balancing, truing and balancing, brake systems, clutch systems, drive systems, general shop procedures and service writing.

AUTO 74.0 MOTORCYCLE FUEL AND EMISSION SYSTEMS REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to diagnose and repair motorcycle fuel and emission systems. Information covered will include a study of carburetor types, construction and operating principles, fuel injection principles, supercharging and turbocharging principles, two and four stroke motorcycle exhaust principles, motorcycle emission control principles, diagnosis and repair, fuel and emission system performance analysis.

AUTO 75.0 MOTORCYCLE ELECTRICAL AND IGNITION SYSTEMS REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to diagnose and repair motorcycle ignition and electrical systems. Information covered will include electrical theory; motorcycle electrical circuitry and wiring schematics; electrical component identification, diagnosis and repair; motorcycle ignition systems identification, diagnosis and repair; ignition system performance analysis.

AUTO 77 AUTOMOTIVE SERVICE WRITING AND SHOP MANAGER
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

AUTO 77.1 AUTOMOTIVE LEADERSHIP AND TEAM BUILDING
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option)

This course provides the student with the knowledge necessary to successfully build a functional automotive team and be an effective automotive team leader. Topics covered will include automotive industry team development, recruitment and retention of team members. The course will also cover automotive industry motivation and compensation and the creation and maintenance of employee policies and procedures handbooks.

AUTO 77.2 AUTOMOTIVE SAFETY TRAINING FOR MANAGERS
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course provides the student with the knowledge necessary to initiate and maintain an effective automotive safety training program in an automotive repair facility. Topics covered will include employee "Right to Know" laws and training requirements, safety audits and facility assessment, hazardous communications guidelines, personal protective equipment, and material handling and storage.

AUTO 77L AUTOMOTIVE SERVICE WRITING AND SHOP MANAGER LABORATORY
Units: 2.0 - 96-108 hours laboratory. (No Prerequisite)

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.

AUTO 78.0 AUTO PARTS SPECIALIST
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course prepares students to perform the duties of a counterperson 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.

AUTO 79.0 AUTOMOTIVE TUNE-UP, EMISSION CONTROL, AND FUEL SYSTEM
Units: 12.0 - 128-144 hours lecture and 192-216 hours laboratory. (No prerequisite)

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 electronic ignition systems, conventional and feedback carburetors, fuel injection, and emission control devices.

AUTO 79A BASIC TUNE-UP
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course covers techniques used by the Automotive Industry to diagnose and repair fuel and ignition systems. Topics will cover the diagnosis and repair of conventional and electronic ignition systems, fuel systems, and introduction to automotive computers.

AUTO 79B TROUBLE SHOOTING AND REPAIR OF IGNITION AND FUEL SYSTEMS
Units: 4.0 - (No prerequisite) 48-54 hours lecture and 48-54 hours laboratory.

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 feedback carburetors, along with emission control devices.

AUTO 80.0 AUTOMOTIVE COMPUTERS, ELECTRONICS AND ELECTRICAL SYSTEMS
Units: 12.0 - 128-144 hours lecture and 192-216 hours laboratory.

This course covers techniques used by the automotive industry to diagnose and repair electrical malfunctions, computer, fuel injection, and electronic ignition systems. Instruction will cover the diagnosis and repair of electronic ignition systems, alternators, starters, computers, and basic electrical and electronic concepts as they apply to the automobile.

AUTO 80.6 INTRODUCTION TO AUTOMOTIVE ELECTRICITY
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade Option.)

This course covers electrical theory, basic electricity, electrical safety procedures, electrical diagnostic equipment, and industry approved procedures to diagnose and repair electrical malfunctions in the automobile.

AUTO 80A AUTOMOTIVE COMPUTERS, ELECTRONICS, AND ELECTRICAL SYSTEMS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

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.

AUTO 82.0 AUTOMOTIVE ELECRICAL REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to diagnose and repair automotive malfunctions including lighting systems, electrical instruments and accessories, electrical door components, air bags, and alarm systems. Information covered will include electrical fundamentals, test equipment, electrical circuits, electrical malfunctions, wiring diagrams, and electrical diagnosis.

AUTO 82.1 NEW MODEL TECHNOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite) This course may be taken four times.

This course is designed to keep technicians current with the latest technical changes and new features for late model vehicles on the road today. It is important to have current information and training in order to correctly diagnose and repair newer vehicles. Topics will cover updated information on computers, accessories, safety, emissions, alternative fuel, and hybrid vehicles. Basic vehicle systems knowledge is recommended for this course.

AUTO 83D BASIC AREA CALIFORNIA CLEAN AIR CAR COURSE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This Bureau of Automotive Repair (BAR) Course

provides the student with the knowledge necessary to perform a smog inspection in a basic inspection area according to BAR guidelines, generic On Board Diagnostic II (OBD II) systems. Information covered will include preconditioning procedures, proper use of smog test equipment, current laws and regulations, consumer waiver and extension procedures, generic OBD II information, BAR required update courses. This class satisfies the BAR requirement for the Basic Area California Clean Air Car Course.

AUTO 84.0 ENHANCED AREA CALIFORNIA CLEAN AIR CAR COURSE
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course covers information needed to prepare students to take the California State Smog Examination for an enhanced emissions area. Topics covered include the diagnosis and repair for oxides of nitrogen, oxygen sensor evaluation, emission failure diagnostic procedures, and dynamometer safety. This course trains technicians to use BAR '97 loaded mode test equipment and lab scopes. This class combines the BAR Dynamometer Diagnostics Update Class and 8 Hour Dynamometer Safety Class.

AUTO 85.0 ENGINE PERFORMANCE
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course provides the student with the knowledge necessary to take a California Alternative Test for Engine Performance. Information covered will include engine testing and diagnosis, fuel management, ignition systems, computer theory and testing. Successful completion of this course satisfies the California Bureau of Automotive Repair's requirements for engine performance.

AUTO 85.1 BASIC ENGINE PERFORMANCE THEORY
Units: 3.0 - 48-54 hours lecture (No prerequisite)

This course covers engine performance theory and techniques used by the automotive industry to diagnose and repair drive-ability malfunctions.

AUTO 85A ADVANCED ENGINE PERFORMANCE
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course is preparation for the Bureau of Automotive Repair California Alternative Test for Advanced Engine Performance. Information covered will include engine testing and diagnosis, fuel management, ignition systems, computer diagnosis and repair. Successful completion of this course satisfies the California Bureau of Automotive Repairs requirements for advanced engine performance.

AUTO 85A.1 ADVANCED ENGINE PERFORMANCE THEORY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course covers engine performance theory and techniques used by the automotive industry to diagnose and repair electrical malfunctions, computer, fuel injection, and electronic ignition systems.

AUTO 85B AUTOMOTIVE ELECTRICAL AND ELECTRONIC SYSTEMS
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. (No prerequisite)

This course is preparation for the Bureau of Automotive Repair California Alternative Test for Automotive Electrical and Electronic Systems. Information covered will include test equipment, electrical circuits, electrical malfunctions, wiring diagrams, and electrical diagnosis. Successful completion of this course satisfies the California Bureau of Automotive Repairs requirements for automotive electrical/electronic training.

AUTO 86.1 IMPORT SPORT TUNING ENGINE PERFORMANCE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge to properly install aftermarket engine performance parts while staying in the confines of applicable state and federal laws. Topics discussed will include forced air induction, exhaust systems, computerized fuel and ignition system modifications.

AUTO 86.2 IMPORT SUSPENSION SPORT TUNING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge to install aftermarket lowering kits, suspension enhancements and alignment procedures for modified suspension systems. Information covered will include suspension geometry, accepted procedures for lowering vehicles, shock absorber choices, tire choices for sport tuned vehicles, and maintenance of modified suspensions.

AUTO 86.3 EXTREME ON AND OFF ROAD SUSPENSION
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge to install aftermarket lift kits, prerunner aftermarket fenders, modify gear ratios, and alignment procedures for modified suspension systems. Information covered will include suspension geometry, lift kit installation, vehicle raising procedures, prerunner aftermarket accessories, tire choices for modified vehicles, and maintenance of modified (raised) suspensions.

AUTO 86.4 AFTERMARKET ELECTRICAL ACCESSORIES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge to install aftermarket electrical accessories. Information covered will include electrical theory, installation of stereos, amplifiers, sub-woofers, and aftermarket lights.

AUTO 86.5 IMPORT BODY CUSTOMIZING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge and skills necessary to customize and install aftermarket body parts. Course covers installation and custom-ization of metal, fiberglass and high carbon fiber body parts, wings, spoilers, ground effects, and door direction reversing. This course also covers shaving door handles and installing remote control door release solenoids.

AUTO 86.6 AMERICAN IRON HOT RODS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides the student with the knowledge to properly modify classic domestic vehicles. Topics covered will include engine performance enhancement and suspension modification.

AUTO 89.1 INTRODUCTION TO HYBRID VEHICLE TECHNOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course introduces hybrid vehicle technology. Topics covered will include electrical basics, batteries, types of hybrid vehicles, and preventive maintenance procedures.

AUTO 89.2 HYBRID VEHICLE MAINTENANCE AND SERVICE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course addresses hybrid vehicle maintenance and service procedures. Topics covered will include safety, manufacture specific hybrids, diagnostic and repair procedures as they relate to hybrid vehicles.

AUTO 91A AUTO BODY REPAIR I
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. (No prerequisite) This course may be taken four times.

Basic auto body repair and refinishing techniques to prepare students with entry level skills used by the automotive industry.

AUTO 91B AUTO BODY REPAIR II
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. (No prerequisite.) This course may be taken four times.

This course is designed for the student who has received instruction in basic auto body repair. Topics covered will include structural repair, automotive refinishing, and damage analysis. The course will focus on developing auto body skills in a hands-on environment with emphasis on improving speed and workmanship.

AUTO 91L AUTOMOTIVE BODY LABORATORY
Units: 1.0 - 48-54 hours laboratory. (No prerequisite) This course may be taken four times.

A laboratory class to develop skills in electrical, auto body and refinishing procedures.

AUTO 92.0 AUTO BODY DAMAGE ESTIMATING I
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No prerequisite)

This class covers the basic of auto body damage estimating. Topics covered will include, but not limited to, sheet metal damage, primary and secondary frame and/or unibody damage, painting and blending, repair vs. replacement of components, and two or four wheel alignment needs.

AUTO 95A AUTOMOTIVE LABORATORY
Units: 1.0 - 48-54 hours laboratory. (No prerequisite) This course may be taken four times.

A laboratory class to develop skills in engine repair, tune up, emissions, electrical, suspension, brakes, and general maintenance procedures.

AUTO 95B AUTOMOTIVE LABORATORY
Units: 2.0 - 96-108 hours laboratory. (No prerequisite) This course may be taken four times.

A laboratory class to develop skills in engine repair, tune up, emissions, electrical, suspension, brakes, and general maintenance procedures.

AUTO 97.0 AUTOMOTIVE AIR CONDITIONING AND HEATING SYSTEMS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers diagnosis and repair of the components of the automotive air conditioning and heating systems; evaporators, compressors, control valves, condensers, blowers, heater cores, lines and hoses, mechanical and electronic temperature controls. Air conditioning and heating related parts will be disassembled, inspected and determination made of the serviceability of existing parts. The need for re-placement parts will be established as the components are reassembled. Recovery and charging of different systems will be covered from both R-12 and R-134A systems.

AUTO 97.1 AUTOMOTIVE HEATING, VENTILATION, AND AIR CONDITIONING, THEORY AND FUNCTION
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course covers heating, ventilation, and air-conditioning (HVAC) theory, basic electricity, HVAC safety procedures, HVAC diagnostic equipment, and industry approved procedures to diagnose and repair HVAC malfunctions in the automobile.

AUTO 98 SPECIAL TOPICS
See Special Topics listing (Variable units).

AUTO 99 CAR CARE CLINIC
Units: 1.0 - 1.5 lecture hours, 1.5 laboratory hours per week for nine weeks. (No prerequisite)

This course covers preventative maintenance techniques for the modern automobile. Instruction will cover the scheduling of preventive maintenance procedures, interactions with auto repair shops, vehicle purchasing techniques, theory and operation of the engine, drive train, suspension, cooling system, brake and lighting system.

AUTO 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

AVIATION

Aviation Technology training is offered locally at Southern California Logistics Airport (SCLA) by the Victor Valley Aviation Education Consortium. This program includes all classroom and practical training required to prepare for the Federal Aviation Administration (FAA) licensing exams for Airframe and Powerplant Technicians. The program includes three courses:

- General Aviation;
- Aviation – Powerplant; and
- Aviation – Airframe.

For more information about this program including registration for the next class session, contact Jim Worsham at 760.243.1905 or visit:

http://www.victorvillecity.com/HP/SCLA_School_of_Aviation_Technology.html

AVIATION COURSES

AVA 51 GENERAL AVIATION I
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. Grade Option.)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include math, basic electricity, basic physics, fluid lines and fittings and materials and processes.

AVA 52 GENERAL AVIATION II
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include maintenance and ground operations.

AVA 61 AIRFRAME I
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include aircraft materials (wood, metal, nonmetallic), coverings and finishes, aircraft inspection, assembly and rigging and welding.

AVA 62 AIRFRAME II
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include aircraft atmosphere, communication, navigation, fuel, landing gear, hydraulic, and pneumatic power systems.

AVA 63 AIRFRAME III
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include aircraft electrical systems, positioning and warning systems, ice and rain control systems, and fire protection systems.

AVA 71 POWERPLANT I
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include reciprocating engines, turbine engines, and engine inspection.

AVA 72 POWERPLANT II
Units: 7.0 - 48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include induction and engine airflow systems, engine exhaust and reverser systems, and propellers.

AVA 73 POWERPLANT III
Units: 7.0 -48-54 hours lecture and 192-216 hours laboratory. (No prerequisite. AVA 51 and AVA 52 recommended. Grade Option)

This course is designed to prepare students for a career in aviation maintenance technology. Topics include engine instrument systems, engine electrical, ignition and starting systems, and engine fuel systems.

BASIC SKILLS

The Basic Skills program consists of several English and Math courses designed to prepare students for English 6 and Math 10 and to allow more advanced students to review core English and Math skills.

Students enroll in courses that combine lecture and lab, which allow students to receive direct instruction in a classroom setting while practicing their skills at their own pace.

To prepare for English 6, students should enroll in BSKL 1, Reading and Writing One (2 units), and then BSKL 2, Reading and Writing 2 (2 units). Students who place in English 6 or English 50 and are interested in reviewing their grammar skills should enroll in BSKL 5, Beginning English Grammar (2 units).

Students who want to move more gradually towards English 6 should begin with BSKL 1A, Reading and Writing One-A, and then take BSKL 1B, Reading and Writing One-B. They should then take BSKL 2, Reading and Writing Two.

To prepare for Math 10, students should enroll in BSKL 6, Math Operations with Whole Numbers (1 unit); BSKL 7, Math Operations with Rational Numbers (1 unit); and then BSKL 8, Math Operations with Decimals. Students who place in Math 50 and are interested in a review should enroll in BSKL 9, Fractions, Decimals and Percentages (1 unit).

BASIC SKILLS COURSES

BSKL 1 READING AND WRITING ONE
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is the first in a series that focuses on reading and writing skills. Students develop their vocabulary base along with grammar and sentence writing skills.

BSKL 1A READING AND WRITING ONE A
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is the first half of the first course in a series that focuses on reading and writing skills. Students develop their vocabulary base along with grammar and sentence writing skills.

BSKL 1B READING AND WRITING ONE B
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is the second half of the first course in a series that focuses on reading and writing skills. Students develop their vocabulary base along with grammar and sentence writing skills.

BSKL 2 READING AND WRITING TWO
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: BSKL 1. Pass/No Pass)

This course is the second in a series that focuses on reading and writing skills. Students develop their reading comprehension and paragraph writing skills.

BSKL 2A READING AND WRITING TWO A
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This is a first-half of the second course in a series that further develops reading and writing skills. Students continue to develop their vocabulary base along with grammar and sentence writing skills.

BSKL 2B READING AND WRITING TWO B
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This is the second-half of the second course in a series that further develops reading and writing skills. Students continue to develop their vocabulary base along with grammar and sentence writing skills.

BSKL 5 BEGINNING ENGLISH GRAMMAR
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass.)

The course covers core concepts in English grammar and includes such topics as subjects and verbs, common usage errors, clauses and phrases and punctuation.

BSKL 6 MATH OPERATIONS WITH WHOLE NUMBERS
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite)

This math course will review computations (addition, subtraction, multiplication, division) with whole numbers. The course also introduces translations of verbal problems into mathematical statements and includes instruction in rounding, approximation, and numerical estimation.

BSKL 7 MATH OPERATIONS WITH RATIONAL NUMBERS
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: BSKL 6 with a minimum grade of 'C' or equivalent.)

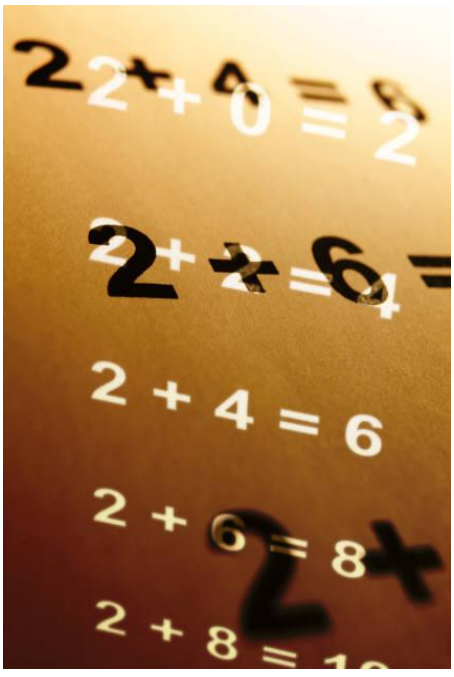
This math course will review computations (addition, subtraction, multiplication, division) with fractions. The course also introduces verbal problems that involve fractions and mixed numbers.

BSKL 8 MATH OPERATIONS WITH DECIMALS
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: BSKL 6 with a minimum grade of 'C' or equivalent.)

This math course will review computations (addition, subtraction, multiplication, division) with decimals. The course also introduces verbal problems that involve decimals. Percentages, ratios, and proportions are also introduced.

BSKL 9 MATH FRACTIONS, DECIMALS, PERCENTAGES
Units: 1.0 - 48-54 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: BSKL 6 with a minimum grade of 'C' or equivalent. Pass/No Pass)

This math course will review computations with fractions and decimals. The course also introduces verbal problems that involve percentages.



BIOLOGICAL SCIENCE

The biological science courses are designed to meet a variety of student requirements. Some courses are designed to fulfill the laboratory general education requirement.

Biology and preprofessional majors will find rigorous, comprehensive classes. Other classes, including non-laboratory, are offered for non-majors and those with special interest areas. A certificate in Biotechnology is also offered.

Career Opportunities
(May require advanced degree)
Environmental Analyst
Forestry
Laboratory Technician
Range Management

Faculty
Full Time
David Gibbs
Jessica Gibbs
Lisa Harvey
Hinrich Kaiser
Pam MacKay

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts (Math/Science)
Associate in Science, Math/Science
Certificate in Biotechnology

Certificate Program

CERTIFICATE IN BIOTECHNOLOGY

Units Required: 16.0

The certificate in Biotechnology is geared towards students interested in gaining entry level jobs in the laboratory, and can apply to the many different areas within the biotechnology industry such as clinical, forensic, or agricultural applications. Students pursuing this certificate will gain a basic biological foundation (BIOL 100 or 107), followed by an overview of the Biotechnology profession (BIOL 70) along with classes instructing technique (BIOL 71) and application of skills.

Group I - All of the following must be completed:

BIOL 100	General Biology	4.0
or 107	Introduction to Human Biology	
BIOL 70	Introduction to Biotechnology	5.0
BIOL 71	Introduction to Laboratory Technique	4.0

Group II - Complete 3.0 units from courses below:

BIOL 72/ CHEM 72	Biomolecular Science	3.0
BIOL 52	Forensic Entomology	3.0
BIOL 54	Forensic Pathology	3.0
ANTH 53	Forensic Anthropology	3.0
AGNR 122	Plant Propagation	3.0
AGNR 71	GIS in Natural Resources	3.0
BIOL 129	Independent Study in Biology	1.0-3.0
BIOL 98	Projects in Biology	1.0-3.0

Associate Degree
No associate degree offered with a major in Biological Science. Biology courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. Biology courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Math/Science or Liberal Arts for degree requirements for these majors. BIOL 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Biology major
- **University of California, Riverside**
  Biology major

BIOLOGY

BIOL 30 MOLECULAR FORENSICS
Units: 0.5 - This course will not apply to the Associate Degree. 9 hours lecture. (No prerequisite)

This course is designed to meet the need for continuing education and supplemental forensics training for law enforcement personnel and educators. Topics will include the molecular science behind DNA fingerprinting analysis and serology. Emphasis will be on collection, recognition, analysis, and evaluation of these forms of evidence.

BIOL 31 FORENSIC TAPHONOMY
Units: 0.5 - This course will not apply to the Associate Degree. 9 hours lecture. (No prerequisite. Grade Option)

Taphonomy is the study of the postmortem process. Taphonomy incorporates the use of entomology, pathology, osteology, odontology, animal behavior and chemistry in order to recover, study and preserve dead organisms. Reconstruction of the biology and/or ecology along with circumstances of death is important in answering questions that pertain to cause, manner and time since death.

BIOL 52 FORENSIC ENTOMOLOGY
Units: 3.0 – 48-54 hours lecture. (No prerequisite. Grade Option)

Students will learn some of the various aspects of forensic entomology. Students will learn basic insect morphology and how it applies to the forensic field. This course will also cover the basic forensic collection techniques, laboratory procedures, analysis of the data, and how to write a written case report.

BIOL 54 FORENSIC PATHOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course examines the medico-legal investigation of death from accidental causes, suicides, homicides, blunt/sharp force injuries, gunshot wounds, asphyxia and drowning. The course will cover the identification of individuals through dental remains and records, as well as sex, age and race determinations.

BIOL 70 INTRODUCTION TO BIOTECHNOLOGY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. (No prerequisite)

This course is designed to introduce students to concepts of modern molecular biology. The concepts will be applied as students learn general manipulation of phage, plant, and bacterial DNA. Students will learn theory and techniques of PCR, gene cloning, DNA fingerprinting, restriction analysis, immunoblot analysis and library construction/screening.

BIOL 71 INTRODUCTION TO LABORATORY TECHNIQUE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

An introduction to laboratory methods for students interested in a career in a laboratory setting. Emphasis will be on basic laboratory methods, the principles that underlie those methods, and the equipment that makes laboratory work possible. Topics will include laboratory safety, quality control, regulatory agencies, and will address problem solving in a laboratory environment.

BIOL 72 BIOMOLECULAR SCIENCE
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Recommended: BIOL 100 or BIOL 107)

This course is a theoretical approach to laboratory techniques common to modern biotechnical/clinical laboratories. Principles of molecular biology, genetics, metabolism, and immunology will be studied with emphasis on their application to modern analytical methods. Information and Communication technology will be used to develop formal writing and public speaking skills. See cross listing for CHEM 72.

BIOL 98 A/B COMPARATIVE NATURAL HISTORY STUDIES
Units: 3.0-4.0 - 16-18 lecture hours plus 96-108 hours laboratory for each unit. (No prerequisite. Grade Option)

This course offers students the opportunity to learn first-hand about plants, animals, ecology, geography, and conservation policies of the trip destination, which is most frequently a foreign country. Pre-trip lectures will include slide shows of organisms you may see and previews of activities and adventures you will experience on the natural history field trip. Trips vary in length from 9 days to 2.5 weeks. Biology majors who wish to participate in a CSU transferable course with more rigorous course requirements and comprehensive biodiversity studies may wish to enroll in BIOL 250A, Ecosystem Field Biology which is offered concurrently.

BIOL 100 GENERAL BIOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite)

This is an introductory course with emphasis 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. The laboratory will include a survey of the morphological characteristics of various organisms on this planet.

BIOL H100 GENERAL BIOLOGY HONORS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (No prerequisite)

This is an introductory course for honors students emphasizing the scientific method, analysis of scientific data, the use of scientific units, cellular biology, genetics and heredity, classification and systematics, evolution, ecology, environmental issues, and current topics in biology. The laboratory complements the lecture topics via direct experimentation, simulations, and video, including a survey of Earth's biological diversity. Specific topics will be emphasized through the use of reading assignments and the preparation of a short research paper.

BIOL 104 GENERAL BOTANY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

This botany course is for non-biology majors. Topics include plant anatomy, plant physiology, plant cell structure, photosynthesis, cell respiration, ecology, genetics, systematics, and plant evolution. The course also includes brief introductions to reproduction of flowering plants, mosses, ferns, and conifers; and sections on field botany and plant identification. Emphasis will be placed on use of the scientific method,

critical thinking, and problem solving skills. Up to two field trips may be required.

BIOL 107 INTRODUCTION TO HUMAN BIOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

An introduction to 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 ecosystem.

BIOL 113 BIOLOGY OF SEXUALLY TRANSMITTED DISEASES
Units: 2.0 - 32-36 hours lecture. CSU (No prerequisite)

This course will provide an understanding of the history and pathogenesis of the most prominent sexually transmitted diseases. Emphasis will be placed on the biological agent, epidemiology, diagnosis and treatment of the disease. Vaccine development and current treatments will also be examined.

BIOL 114 INTRODUCTION TO ECOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

The first half of this course covers basic ecological principles about demography and population growth, species interactions and food webs, introduction to photosynthesis and metabolism, and nutrient cycling. The remainder of the course emphasizes environmental problems and how they relate to ecological principles. Topics include global biodiversity and endangered species, water and air pollution, alternate energy sources, alternative agriculture and pesticides, and other topics of local interest. Although this course has no laboratory, some outdoor activities and short-distance field trips during class time may be required.

BIOL 118 PRINCIPLES OF HEREDITY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

A survey of Mendelian inheritance, quantitative traits, and population genetics with special emphasis on human inheritance and family pedigree analysis. Also includes sections on DNA technology, immune genetics and genetics of cancer. This course stresses development of critical thinking and problem solving skills.

BIOL 120 IDENTIFICATION AND STUDY OF WILDFLOWERS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade Option)

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.

BIOL 126 NATURAL HISTORY OF THE MOJAVE DESERT
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade Option.)

This course acquaints students with the unique plants of the Mojave Desert and their adaptations for survival. Emphasis is on identification, life history, water economy, and thermoregulatory mechanisms. Mojave Desert plant communities, climate, geology, geography, and history will also be discussed. Local conservation issues will also be surveyed, with special consideration of rare and endemic species.

BIOL 127 IDENTIFICATION AND STUDY OF BIRDS OF THE MOJAVE DESERT AND ADJACENT MOUNTAINS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade Option.)

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.

BIOL 128 IDENTIFICATION AND STUDY OF AMPHIBIANS AND REPTILES OF THE MOJAVE AND ADJACENT MOUNTAINS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade Option.)

This course is a survey of the amphibians and reptiles of the Mojave Desert and adjacent mountains. This course reviews amphibian and reptile characteristics, origin and evolution, and classification. This course will also discuss habitats, behaviors and adaptations of the local amphibians and reptiles.

BIOL 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

BIOL 149 INDEPENDENT STUDY
54-162 hours lecture.
See Independent Study listing (1-3 units). CSU

BIOL 201 BIOLOGY OF CELLS
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC. (Prerequisite: MATH 90 or higher with a grade "C" or better. Prerequisite or co-requisite: CHEM 100 or CHEM 201 with a minimum grade of 'C' or better.)

This course will provide students with a comprehensive introduction to the biological principles at the cellular and molecular level. Emphasis will be placed on the scientific method, molecular biology, biochemistry, structure and function of cells, cellular reproduction and Mendelian and molecular genetics. This course is designed for pre-professional and biology majors but is open to all students.

BIOL 202 BIOLOGY OF ORGANISMS
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC. (Prerequisite: MATH 90 or higher with a grade "C" or better).

This course provides students with a comprehensive introduction to the diversity of biological organisms. Emphasis is placed on the origin of life, evolutionary relationships among groups of organisms and the basic anatomy and physiology of the major groups of living organisms and an introduction to the principles of ecology. Biology majors should also take Biology 201.

BIOL 203 POPULATION AND ENVIRONMENTAL BIOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite.)

This rigorous course is an introduction to the structure and organization of populations, communities and ecosystems. Emphasis will be on demography, population growth, life history traits, extinction, species interactions and behaviors, ecosystem dynamics and evolution, as well as selected current environmental issues. Mathematical modeling, a difficult yet important aspect of population and community ecology, will also be addressed. Students will participate in field laboratories, use statistics to analyze data and compose scientific papers. This course is designed for biological science majors, but is open to all students.

BIOL 211 HUMAN ANATOMY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: BIOL 100 or BIOL H100, BIOL 107, or BIOL 201 with a grade of "C" or better.)

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.

BIOL 213 SEXUALLY TRANSMITTED DISEASES
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

This course will provide an understanding of the history and pathogenesis of the most prominent sexually transmitted diseases. Emphasis will be placed on the biological agent, epidemiology, diagnosis and treatment of the disease. Vaccine development and current treatments will also be examined.

BIOL 215 HUMAN GROSS ANATOMY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

An advanced anatomy class that utilizes a regional approach to the study of the thorax, abdomen, pelvis, back, extremities, head and neck. Lecture will include medical/clinical applications and case studies on these regions. Laboratory includes hands on group dissection on a whole cadaver; as well as work on a high-level anatomy software program.

BIOL 221 GENERAL MICROBIOLOGY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC. (Prerequisites: BIOL 100 or BIOL H100, 107 or 201; CHEM 100 or CHEM H100, or CHEM 201; all completed with a grade of "C" or better.)

Introduction to bacteria, viruses, and parasitic forms of protozoa, helminths, and fungi. Examination of morphological, physiological, and epidemiological characteristics of these organisms and of the immune response produced by their hosts.

BIOL 231 HUMAN PHYSIOLOGY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC. (Prerequisites: BIOL 100 or BIOL H100, BIOL 107, BIOL 201, or BIOL 211, CHEM 100 or CHEM H100, or CHEM 201; all completed with a grade of "C" or better.)

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 the interpretation of physiological tests and diagnostic testing procedures.

BIOL 233 PATHOPHYSIOLOGY
Units: 3.0 - 48-54 hours lecture. CSU (Prerequisite: BIOL 231 with a grade of 'C' or better.)

This course is designed to promote understanding and application of fundamental disease processes in clinical settings. General concepts of disease, including etiology, pathogenesis, morphology and clinical significance are discussed. General pathophysiology concepts include cell injury, necrosis, inflammation, wound healing and neoplasia. These concepts are applied in a systems-oriented approach to disease processes affecting musculoskeletal, cardiopulmonary, renal, nervous, gastrointestinal, immune, hematological and endocrine systems.

BIOL 250A ECOSYSTEM FIELD BIOLOGY
Units: 3.0 - 16-18 hours lecture and 96-108 hours laboratory. CSU (Prerequisite: BIOL 100, BIOL H100 or equivalent. Grade Option)

This course lets students experience various ecosystems from a fieldwork and research perspective. Students will learn research techniques hands-on from basic specimen collecting, species identification, and data gathering in the field to data analysis and scientific writing and will apply these in biodiversity surveys of terrestrial or aquatic habitats or both. An emphasis will be placed on amphibians and reptiles, or plant life, or birds, or mammals, or a combination of these (depending on the specialty of the instructor) and adaptations to life in tropical or other ecosystems. Pre-trip lectures will include information about habitats and organisms of the destination country, as well as previews of activities and adventures you will experience on the field trip. Trips vary in length from 9 days to 2.5 weeks. This course is intended for biology majors but is open to all students. Non-majors who wish to participate with less rigorous course requirements may wish to enroll in BIOL 98, Comparative Natural History Studies, which is offered concurrently.

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 any of the following:

- ALDH 80, 81, 82, 139
- CIS 52, 61, 101
- ECON 101, l02
- MATH 105, 120
- Any Business Administration course except BADM 138
- Any Business Education Technology course except BET 138
- Any Business Escrow course except BESC 138
- Any Business Real Estate course except BRE 138

Students may prefer to major in Business Administration, Business Education Technologies, or Business Real Estate and Escrow rather than general Business to assure a stronger curriculum base.

Transfer
See Business Administration or Business Education Technologies for transfer requirements.

BUSINESS ADMINISTRATION COURSES

The Business Administration Department offers a variety of courses in business which allows a student to comply with the lower-division requirements for transfer to university level programs. Courses are also offered which allow the student to prepare for career entry-level positions and for upgrading of job skills for the already career-oriented student.

The department offers two certificates: a Management Certificate and Bookkeeping I Certificate. The Certificates are designed for those students interested in entering the field of business or for those who are currently working and would like to upgrade their business skills. Students completing the Management Certificate will have entry-level management knowledge and skills. Students completing the Bookkeeping I Certificate will have entry-level bookkeeping/accounting clerk skills. These certificates will also indicate that the student has completed a series of courses for skill upgrading for those already employed.

In addition to the certificates, students may also earn an Associate of Science Degree in Business Adminis-

tration. Many of the Business Administration Department courses are offered online via the Internet, allowing a student to earn the Management Certificate and/or the AS Degree through distance education. See the current Schedule of Classes for a listing of online classes.

Those students planning to transfer to an upper-division institution should select their courses with the assistance of a counselor since each transfer institution has unique requirements.

Career Opportunities
Positions from entry-level to mid-management may be reasonable expectations upon completion of either the Degree or the Certificate programs in the fields of retailing, merchandising, service-related businesses, bookkeeping, and manufacturing firms. Some possible position titles include:

Accounting Clerk/Bookkeeper
Administrative Assistant
Department Manager
Human Resource Manager
Marketing Manager
Merchandise Buyer
Merchandise Manager
Office Manager
Purchasing Management
Salesperson
Store Manager

Faculty
Full Time
Peter Allan
David Hollomon
O. Odell Moon
Henry Young

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

Certificate Programs

BOOKKEEPING I CERTIFICATE

Units Required: 16.0

The Bookkeeping I Certificate is designed to give the student entry-level skills as an accounting clerk or bookkeeper. These skills include the ability to sort, record, and file accounting data, as well as perform general accounting tasks and assist in the processes of summarizing and analyzing accounting information, both manually and using a computerized accounting program.

All of the following must be completed:

BADM 106	Accounting on Microcomputers I	2.0
BADM 107	Accounting on Microcomputers II	2.0
BADM 100	Introduction to Business Organization	3.0
BADM 142	Business Mathematics	3.0
BADM 50	Applied Accounting I	3.0
BADM 51	Applied Accounting II	3.0

MANAGEMENT CERTIFICATE

Units Required: 31.0 units minimum

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.

Group I - All of the following must be completed:

BADM 101	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0
BADM 110	Principles of Management	3.0
BADM 117	Legal Environment of Business	3.0
BADM 100	Introduction to Business Organizations	3.0
BADM 142	Business Mathematics	3.0
BADM 144	Business Communications	3.0
CIS 101	Computer Literacy	4.0

Group II - One of the following must be completed:

BADM 112	Introduction to Marketing	3.0
BADM 122	Small Business Management	3.0

Group III - One of the following must be completed:

ECON 101	Principles of Economics [Macro]	3.0
ECON 102	Principles of Economics [Micro]	3.0

Group IV - One of the following must be completed:

BADM 109	Human Resource Management	3.0
BADM 116	Human Relations in Business	3.0
BADM 52	Elements of Supervision	3.0

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Administration major
  Complete the following courses prior to transfer if possible: BADM 101 or 103; 102 or 104; 118; ECON 101, 102; CIS 101; MATH 105, 120. Additional classes may be required in some concentrations.

- **University of California, Riverside**
  Business Administration major
  Complete the following courses prior to transfer if possible: BADM 100; 101 or 103; CIS 101; ECON 101, 102; Math 120, 226.

Local Bachelors Programs
For information on the following programs located in the High Desert, please visit: www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets":

- **Azusa Pacific University, High Desert Regional Center**
  Organizational Leadership major

- **Brandman University, Victor Valley Campus**
  Business Administration major
  Organizational Leadership major

- **University of La Verne, High Desert Campus**
  Business Administration major
  Organizational Management major
  Public Administration major

BUSINESS ADMINISTRATION

BADM 50 APPLIED ACCOUNTING I
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

BADM 51 APPLIED ACCOUNTING II
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

BADM 52 ELEMENTS OF SUPERVISION
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course is designed to introduce the student to the concepts of effectively supervising employees. Students will be introduced to the elements of directing the work of others and the specific skills required for goal setting, budgeting, scheduling, delegating, interviewing, negotiation, handling grievances, counseling employees, and performance evaluations.

BADM 100 INTRODUCTION TO BUSINESS ORGANIZATIONS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

Business is dynamic and constantly changing. This course is designed to introduce the student to contemporary issues and principles of business as well as the different areas of business a student may be interested in pursuing as a career. These areas include management, marketing, accounting, finance, human resource management, and entrepreneurship. In addition, other topics include the global dimension of business, the various forms of business ownership, teamwork, securities, ethics and social responsibility, and economic challenges facing the 21st century.

BADM 101 FINANCIAL ACCOUNTING
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

This introductory financial accounting course provides instruction in the theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external uses. Topics include coverage of asset valuation, revenue and expense recognition, and appropriate accounting methods for long term asses, liability, and capital accounts. Additional areas of coverage include financial statement and rational analysis. The course includes application of general ledger software as well as Microsoft Excel programs. This course is required for business majors preparing for and planning to transfer to a four year college or university.

BADM 102 MANAGERIAL ACCOUNTING
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

This course is the study of theory and practices of managerial accounting and organizational quantitative analysis with decision making. Special emphasis is placed on product and process costing, responsibility accounting, break even analysis and master budgeting.

BADM 103 FINANCIAL ACCOUNTING
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

This course is a study of the theory and practice of financial accounting for a sole proprietorship. Concepts and principles are introduced in a logical progression from the introduction of the accounting equation to preparation of financial statements. The course focuses on both service enterprises and merchandise enterprises. Business transactions are recorded, analyzed, and summarized within the accounting system of record keeping.

BADM 104 PRINCIPLES OF ACCOUNTING
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

This course covers accounting theory and procedures for corporations, basic accounting theory pertaining to the accounting for long-term liabilities and investments, the preparations and content of a cash flow statement, and basic financial statement analysis. In addition, this course covers accounting theory and procedures for a manufacturer (including job order and process costing systems, and actual, normal, and standard costing systems), budgeting (master budgets, cash budgets, and flexible budgets), cost-volume-profit analysis, variance analysis, responsibility accounting, and decision analysis including capital budgeting.

BADM 106 ACCOUNTING ON MICROCOMPUTERS
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (No prerequisite)

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.

BADM 107 ACCOUNTING ON MICROCOMPUTERS
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (No prerequisite)

This course is intended to be a continuation and expansion on accounting procedures covered in BADM 6. Topics covered include billing, purchasing, product assembly, inventory control, payroll, taxation, and reporting and graphics presentations. Students successfully completing both BADM 106 and 107 should be fully qualified to take full control of any computerized accounting program used by a small business.

BADM 109 HUMAN RESOURCE MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This introductory course is designed to acquaint the student with the important functions performed by the human resource department in a business organization. These functions include recruiting, staffing, training and development, compensation, strategic human resource planning, personnel evaluation, and management-labor relations. Other topics include global issues, the legal environment, EEO, sexual harassment, and design of work. This course is for the managerial candidate, for those who have not had formal management training, or for the individual who is currently or interested in working in a human resource department.

BADM 110 PRINCIPLES OF MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This is an introductory course to the management functions of planning, organizing, leading and controlling. The concepts of corporate culture, the impact of the external environment, business ethics and social responsibility, motivation, communication and teamwork, globalization, and quality control are a few of the topics covered. This course is designed for the managerial candidate or for the individual who has worked but not had formal training in business management.

BADM 112 INTRODUCTION TO MARKETING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite, Grade Option)

This course is an introduction to contemporary marketing principles. Included in this course will be relationship marketing, the global dimension of marketing, e-commerce, marketing plan development, research, market segmentation, product strategy, distribution, promotional, and pricing strategies.

BADM 113 RETAILING MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option.)

This course presents a strategic approach to retail management. Topics include appropriate marketing strategies, communicating with customers and staff, searching for and finding appropriate retail locations, and merchandising and pricing. Field trips may be included.

BADM 116 HUMAN RELATIONS IN BUSINESS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Human relation skills mean interactions among people and represent the single biggest reason for career success and failure. This course provides a clear understanding of human relation concepts, the application of human relation concepts for critical thinking in the business world, and the ability to increase the student's development of human relation skills.

BADM 117 LEGAL ENVIRONMENT OF BUSINESS
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite, Grade Option)

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.

BADM 118 BUSINESS LAW
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

BADM 122 SMALL BUSINESS MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

An introduction to contemporary management techniques used by small businesses in the free enterprise system. The course focuses on entrepreneurial opportunities, developing a business plan for a planned or existing small business, small business marketing, operations, and financial management.

BADM 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

BADM 142 BUSINESS MATHEMATICS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

An introduction to a variety of business computations and applications such as percents, payroll, markup/markdown, cash and trade discounts, simple and compound interest, annuities, credit, mortgages, financial statements and analysis, inventory, depreciation, and taxes.

BADM 144 BUSINESS COMMUNICATIONS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

Studies the principles and role of business communication and the need for communication skills in a global marketplace. Emphasizes written communications such as standard and persuasive business letters, memorandums, and informational as well as analytical reports. Studies effective proposal, resumes, and other employment-related documents. Develops planning, organizing, and outlining skills as well as editing proficiency. Evaluates grammar skills and improves writing style.

BADM 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

BADM 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

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. The Associate in Science degree and Certificates of Achievement and Career Preparation are awarded.

Career Opportunities
Administrative Assistant
Data Entry
Desktop Publishing
Executive Secretary
General Clerk
Office Manager
Receptionist
Stenographer
Teacher
Typist
Transcription Machine Operator

Faculty
Full Time
Barbara Becker
Becky Palmer - Emeritus

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

Units Required: 34.0

This curriculum is designed to prepare students for employment in business/industry/government for higher-level executives. Duties include office supervision, word processing, maintaining office records and accounts.

(Group I: 28 units, Group II: 6 units)

Group I - *All of the following must be completed (28 units):*

BET 100	Introduction to Computers	2.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 107	Internet Level I	1.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System: Windows	1.0
BET 142	Office Technologies and Procedures	3.0
BET 74	Office Machine Calculations	2.0
BET 112	Spreadsheet: Excel for Windows	3.0
BADM 106	Accounting on Microcomputers	2.0
BET 65	Speedwriting	3.0

*3 units must be chosen from **one** of the following:*

BET 143	Business English	3.0
BET 68	Proofreading A/B/C	3.0

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

ECON 101	Principles of Economics: Macro	3.0
BADM 110	Business Management	3.0
BET 141B/C	Operating System: Windows	1.0-2.0
BET 77	Speed and Accuracy Development	2.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 137	Desktop Publishing: Microsoft Publisher A/B/C	1.0-3.0
BET 123T	Machine Transcription	1.0
BET 145	Communications for Business	3.0
BET 134	Condensed Word Processing	1.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0
BET 118	Database: Access A/B/C	1.0-3.0

COMPUTER SYSTEMS I CERTIFICATE

Units Required: 10.0

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

Group I - 3 units

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0

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

BET 107	Internet Level I	1.0
BET 123T	Machine Transcription	1.0
BET 112	Spreadsheet: Excel for Windows A/B/C	1.0-3.0
BET 136	Career Applications for Word Processing	3.0
BET 143	Business English	3.0
BET 68	Proofreading A/B/C	3.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 100	Introduction to Computers	2.0
BET 137	Desktop Publishing: Microsoft Publisher A/B/C	1.0-3.0

COMPUTER SYSTEMS II CERTIFICATE

Units Required: 20.0

This curriculum is designed to prepare students for the modern computer office. It includes instruction in the most popular business software.

All of the following must be completed:

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 107	Internet Level I	1.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0
BET 136	Career Applications for Word Processing	3.0
BET 141A	Operating System: Windows	1.0

6 units must be chosen from the following:

BET 118	Database: Access A/B/C	1.0-3.0
CIS 280	Fundamentals of Database Management Systems	3.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 100	Introduction to Computers	2.0
BET 137	Desktop Publishing: Microsoft Publisher A/B/C	1.0-3.0

3 units must be chosen from <u>one</u> of the following:

BET 143	Business English	3.0
BET 68	Proofreading A/B/C	3.0

DATA TYPIST CERTIFICATE

Units Required: 16.0

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.

(Group I: 9 units, Group II: 7 units)

Group I - All of the following must be completed:

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 136	Career Applications for Word Processing	3.0
BET 68	Proofreading	1.0
BET 74	Office Machine Calculations	2.0

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

BET 107	Internet Level I	1.0
BET 123T	Machine Transcription	1.0
BET 134	Condensed Word Processing	1.0
BET 135	Desktop Publishing: PageMaker	2.0
BET 137	Desktop Publishing: Microsoft Publisher A/B/C	1.0-3.0
BET 141A	Operating System: Windows	1.0
BET 77	Speed and Accuracy Development	2.0
BET 112A	Spreadsheet: Excel for Windows	1.0
BET 145	Communications for Business	3.0
BET 143	Business English	3.0
BET 68	Proofreading A/B/C	1.0-3.0
BET 118	DataBase: Access A/B/C	1.0-3.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0
CIS 280	Fundamentals of Database Management Systems	3.0

LEGAL OFFICE CERTIFICATE

Units Required: 28.0

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.

All of the following must be completed:

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BADM 117	Legal Environment of Business	3.0
BET 123L	Machine Transcription-Legal	3.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 142	Office Technologies and Procedures	3.0
BET 74	Office Machine Calculations	2.0
BET 65	Speedwriting	3.0

*3 units must be chosen from **<u>one</u>** of the following:*

BET 143	Business English	3.0
BET 68	Proofreading A/B/C	3.0

*3 units must be chosen from **<u>one</u>** of the following:*

BET 145	Communications for Business	3.0
BET 141A	Operating System: Windows	1.0
BET 118	DataBase: Access A/B/C	1.0-3.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 100	Introduction to Computers	2.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

MEDICAL OFFICE CERTIFICATE

Unit Required: 30.0

This curriculum is designed to prepare students to effectively carry out front medical office functions. Administrative duties include scheduling and receiving patients, maintaining medical records, office accounts, insurance forms, and transcription. See *Medical Assistant* for a program which includes both front and back office preparation and a clinical component.

All of the following must be completed:

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 123M	Machine Transcription-Medical	3.0

BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 142	Office Technologies and Procedures	3.0
ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0
ALDH 139	Medical Terminology	3.0

1 unit must be chosen from one of the following:

BET 141A	Operating System: Windows	1.0
BET 118	DataBase: Access A/B/C	1.0-3.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 100	Introduction to Computers	2.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

OFFICE SERVICES CERTIFICATE

Units Required: 11.0

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.

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

2 units may be chosen from:

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0

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

BET 123T	Machine Transcription	1.0
BET 142	Office Technologies and Procedures	3.0
BET 74	Office Machine Calculations	2.0
BET 131	Powerpoint A/B/C	1.0-3.0
BET 137	Desktop Publishing: Microsoft Publisher A/B/C	1.0-3.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0
BET 118	DataBase: Access A/B/C	1.0-3.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0
BET 65	Speedwriting	3.0

3 units may be chosen from one of the following:

BET 143	Business English	3.0
BET 68	Proofreading A/B/C	3.0

SPREADSHEET PROCESSOR CERTIFICATE

Units Required: 3.0

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

BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

WORD PROCESSOR CERTIFICATE

Units Required: 3.0

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

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0

Associate Degree

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

Transfer

Not usually a transfer major. Some Business Education Technologies courses fulfill subject credit requirements, but most transfer as electives. (Students pursuing a bachelor's degree in Business Administration should note that Business Education Technologies courses will typically not fulfill major requirements for transfer. See Business Administration for transfer requirements for that degree.)

The following CSU campuses 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, and visit www.assist.org.

BUSINESS EDUCATION TECHNOLOGIES COURSES

BET 65 SPEEDWRITING
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

BET 68 PROOFREADING
Units: 3.0 - 144-162 hours laboratory. (No prerequisite. Recommended preparation: BET 104, 104A, 104B or 104C) This course may be taken four times.

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.

BET 74 OFFICE MACHINE CALCULATIONS
Units: 2.0 - 64-72 hours individualized instruction. (No prerequisite)

Provides practice on ten-key calculating machine with applications of actual business problems and forms.

BET 77 SPEED AND ACCURACY DEVELOPMENT
Units: 2.0 - 96-108 hours laboratory or 64-72 hours individualized instruction. (No prerequisite. Grade Option.) This course may be taken two times.

This course is designed to fit the needs of each student and develops keyboarding/typing speed for continuing to higher level courses or developing job skills by intensive training and practices.

BET 100 INTRODUCTION TO COMPUTERS
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite. Grade Option)

This course is directed to those with little or no computer experience. It will introduce basic essential elements of computers such as: power up, hardware components, evolution of computers, types of personal computers, the input-process-out put cycle, desktop components, email, and the World Wide Web.

BET 101 BEGINNING KEYBOARDING/TYPING
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite) This course may be taken four times.

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.

BET 104 BEGINNING WORD PROCESSING/TYPING: WORD FOR WINDOWS A/B/C
Units: 3.0 - 48-54 hours lecture or 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course Introduces students to Word for Windows. Students will develop a working knowledge of this current software package to prepare documents.

BET 104A WORD FOR WINDOWS A
Units: 1.0 - 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. ((No prerequisite. Grade Option) This course may be taken four times.

This course introduces students to Word for Windows with emphasis on creating, editing, formatting, and printing documents. It is designed for students with limited experience on the computer.

BET 104B WORD FOR WINDOWS B
Units: 1.0 - 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course introduces students to Word for Windows. Students will develop a working knowledge of this current software package to prepare documents.

BET 104C WORD FOR WINDOWS C
Units: 1.0 - 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course introduces students to Word for Windows. Students will develop a working knowledge of advanced Word features including styles, macros, and integrating Microsoft Office programs.

BET 107 INTERNET A/B/C
Units: 3.0 - 48-54 hours lecture or 96-108 hours individualized instruction. CSU (No prerequisite. Grade Option.) This course may be taken four times.

This course is designed to teach students concepts and business skills of the Internet including creating an e-mail account; creating, editing, and printing effective web pages; and understanding Internet technologies and security.

BET 107A INTERNET A
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This introductory course is a self-paced, individualized course. Basic Internet topics and commands such as defining the Internet and browsing the Web are covered.

BET 107B INTERNET B
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This introductory course is a self-paced, individualized course. Internet topics and commands such as searching the Internet, composing and sending e-mails, and using research and reference tools are covered.

BET 107C INTERNET C
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This third unit is a self-paced, individualized introduction designed to teach students concepts of Internet technologies and security, creating web pages and managing a web site.

BET 112 SPREADSHEET: EXCEL FOR WINDOWS A/B/C
Units: 3.0 - 48-54 hours lecture or 144-162 hours laboratory or 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This course offers spreadsheet operations for creating, editing, formatting and enhancing charts in worksheets. Students learn to manage workbooks and prepare them for the web. Students plan, create, and then filter lists using Excel's database.

BET 112A SPREADSHEET: EXCEL FOR WINDOWS A
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This first unit of Excel is a self-paced, individualized introduction to spreadsheet operations for creating, editing, formatting and placing graphics in worksheets. Extensive hands-on practice for students is provided at individualized workstations.

BET 112B SPREADSHEET: EXCEL FOR WINDOWS B
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

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.

BET 112C SPREADSHEET: EXCEL FOR WINDOWS C
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This third unit is a self-paced, individualized introduction to complex formulas, enhancing charts and worksheets working with pivot tables and customizing Excel and advanced worksheet management. Extensive hands-on practice is provided at individual workstations.

BET 118 DATABASE: ACCESS A/B/C
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite) This course may be taken three times.

Familiarity with computers is recommended. Introduces database concepts through advanced skill levels including advanced queries, briefcase replication, macros and use of Visual Basic for applications code.

BET 118A DATABASE: ACCESS A
Units: 1.0 - 32-36 hours individualized instruction. CSU. (No prerequisite) This course may be taken three times.

Introduces database concepts and skills. Students will learn to manage and organize database files with extensive hands-on practice at individual work stations.

BET 118B DATABASE: ACCESS B
Units: 1.0 – 32-36 hours individualized instruction. CSU. (Prerequisite: BET 118A) This course may be taken three times.

This second unit in database management will feature advanced querying, storing and organizing business information.

BET 118C DATABASE: ACCESS C
Units: 1.0 - 32-36 hours individualized instruction. CSU. (Prerequisite: BET 118B) This course may be taken three times.

This course is designed to teach the student advanced concepts and business skills using Access, including working with advance queries, briefcase replication, macros and the use of Visual Basic for applications code.

BET 122 INTERMEDIATE KEYBOARD/TYPING MODULES A/B/C
Units: 3.0 - 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This course is designed to build speed and skills learned in Beginning Typing/Keyboarding with an emphasis on attaining straight copy rate of 45-60 gross wpm with a predetermined error limit. Additionally, students will develop skills needed to effectively format a variety of business documents.

BET 123L MACHINE TRANSCRIPTION – LEGAL
Units: 3.0 - 96-108 hours individualized instruction. CSU. (Prerequisite: Successful completion of BET 103C or 104C. Recommended: BADM 117) This course may be taken three times.

Students develop machine transcription skills used in a typical law firm and learn to prepare legal documents and correspondence.

BET 123M MACHINE TRANSCRIPTION – MEDICAL
Units: 3.0 - 96-108 hours individualized instruction. CSU. (Prerequisite: Successful completion of BET 103C or 104C. Recommended: ALDH 139) This course may be taken three times.

Students develop machine transcription skills for a medical transcriber and learn the use and meaning of medical terminology used in the Allied Health field. Recommended: ALDH 139) This course may be taken three times.

BET 123T MACHINE TRANSCRIPTION
Units: 2.0 - 32-36 hours lecture or 96-108 hours laboratory or 64-72 hours individualized instruction. CSU. (No prerequisite. Recommended Preparation: BET 104A) This course may be taken four times.

Introduces students to word processing transcription of business letters and memos.

BET 124 RECORDS MANAGEMENT WITH MICROCOMPUTER APPLICATIONS
Units: 2.0 - 32-36 hours lecture or 96-108 hours laboratory or 64-72 hours individualized instruction. CSU. (No prerequisite)

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.

BET 131 PRESENTATION SOFTWARE: POWERPOINT A/B/C
Units: 3.0 - 48-54 hours lecture or 144-162 hours laboratory or 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to teach students concepts and business skills of PowerPoint including creating, editing, and printing effective presentations. Students learn advanced PowerPoint features such as creating graphs and tables, and customizing, and inserting artwork, WordArt, and slide show effects. Students learn concepts and business skills of PowerPoint. The concepts and skills include working with embedded and linked objects, hyperlinks, and delivering and publishing presentations.

BET 131A PRESENTATION SOFTWARE: POWERPOINT A
Units: 1.0 -16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to teach students the concepts and business skills of PowerPoint including creating, editing, and printing effective presentations. This class provides students with skills that enable them easily and quickly to produce classroom and business presentations.

BET 131B PRESENTATION SOFTWARE: POWERPOINT B
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

Students will learn advanced PowerPoint features such as creating graphs, tables, customizing color schemes and inserting artwork, WordArt and slide show effects.

BET 131C PRESENTATION SOFTWARE: POWERPOINT C
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This is a self-paced, individualized introduction designed to teach students concepts and business skills of PowerPoint including customizing, working with embedded and linked objects and hyperlinks and delivering and publishing presentations.

BET 133 MICROSOFT OFFICE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

This class is designed to introduce students to the basic functions of Microsoft Office Word, Excel, PowerPoint, and Access, as well as a brief overview of operating systems and the Internet.

BET 136 CAREER APPLICATIONS FOR WORD PROCESSING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Recommended preparation: Successful completion of BET 104 or BET 103. Ability to use word processing functions to create, format and edit advanced business documents. Grade Option)

This course is designed for the student who is familiar with word processing functions and formatting principles. Topics will include terminology and methodology used in a variety of business careers by applying formatting and keyboarding skills to complex professional documents including letters, memos, forms, tables and reports.

BET 137 DESKTOP PUBLISHING: MICROSOFT PUBLISHER A/B/C
Units: 3.0 - 48-54 hours lecture or 144-162 hours laboratory or 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This class is designed to teach students practical, professional quality publications using Microsoft Publisher.

BET 137A DESKTOP PUBLISHING: MICROSOFT PUBLISHER A
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This is the introductory course designed to teach students the concepts and business skills of Microsoft Publisher. This class provides students with the skills to easily and quickly produce professional classroom and business publications.

BET 137B DESKTOP PUBLISHING: MICROSOFT PUBLISHER B
Units: 1.0 - 16-18 hours lecture or 48-54 hours laboratory or 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This unit will teach students the advanced Publisher features such as enhancing a publication and using Publisher's drawing tools and styles.

BET 137C DESKTOP PUBLISHING: MICROSOFT PUBLISHER C
Units: 1.0 - 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This unit is designed to teach students advanced concepts and business skills of Publisher including customizing publications and publishing web sites.

BET 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

BET 141 OPERATING SYSTEM: WINDOWS A/B/C
Units: 3.0 - 96-108 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

Introduction to Windows operating system and features through extensive hands-on exercises.

BET 141A OPERATING SYSTEMS: WINDOWS A
Units: 1.0 - 16-18 hours lecture or 32-36 hours individualized instruction. CSU. (No prerequisite) This course may be taken four times.

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.

BET 141B OPERATING SYSTEM: WINDOWS B
Units: 1.0 - 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This second unit covers more extensive hands-on practice with additional Windows commands and use of icons.

BET 141C OPERATING SYSTEM: WINDOWS C
Units: 1.0 - 32-36 hours individualized instruction. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This third unit includes features using program manager and Windows interface.

BET 142 OFFICE TECHNOLOGIES AND PROCEDURES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

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.

BET 143 BUSINESS ENGLISH
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite. Grade Option)

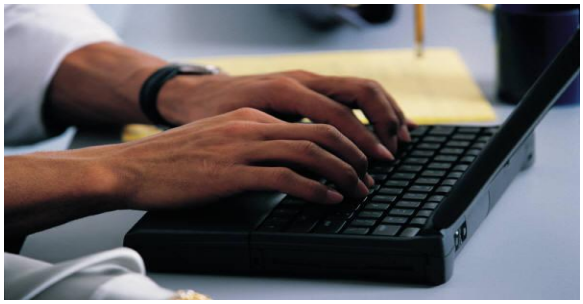
This is a technical course to develop a proficiency in written business communication. A comprehensive review of proofreading, grammar, punctuation, sentence structure, and letter and memo formats emphasizing the function of business English in various types of business communications.

BET 145 COMMUNICATIONS FOR BUSINESS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This is a course designed for Business Education Technologies to create proficiency in the mechanics of writing, reading, and critically analyzing various types of business correspondence. This 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.

BET 148 SPECIAL TOPICS
See Special Topics listing (Variable units).

BET 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU



BUSINESS ESCROW COURSES

BESC 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

BESC 141 ESCROW I, PRINCIPLES (BASIC)
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Methods and techniques of escrow procedures for various types of business transactions with emphasis on real estate, including the legal and ethical responsibilities for persons engaged in escrow work. Elective for the Real Estate Broker's license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license.

BESC 142 ESCROW II, PRINCIPLES (ADVANCED)
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Covers the more unusual and difficult types of escrows with an evaluation of the possible solutions. Emphasis is on real estate with some personal property and bulk sales covered. Elective for the Real Estate Broker's license. Meets the 18-month, post licensing, educational requirements for the California Real Estate Salesman's license.

BESC 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

BESC 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

BUSINESS REAL ESTATE AND ESCROW

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

The single largest business transaction entered into by most people is the sale or purchase of a home or other real estate. Consequently, people often seek the professional opinions and assistance of real estate salespersons, brokers, and appraisers. These professionals are familiar with the various forms of financing available in any given market. They keep abreast of actions taken by their county or city planners

and become familiar with the zoning laws, tax laws, and real estate and contract law in order to better serve their clients. Real estate agents and brokers are not limited to selling real estate for they can also manage or develop property.

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

The escrow officer is a highly trained individual whose knowledge of real estate transfer for private businesses and estate settlement procedures is essential for the operation of an escrow office.

Career Opportunities
Banking
Developer
Escrow Officer
Escrow Secretary
Loan Broker/Salesman
Property Manager
Real Estate Appraiser
Real Estate Broker
Real Estate Lawyer
Real Estate Salesperson
Real Estate Secretary
Securities Broker
Title Insurance Representative

Faculty
Full Time
Chris Grover

Degrees and Certificates Awarded
Associate in Science, Business Real Estate and Escrow
Advanced Business Real Estate Certificate
Basic Business Real Estate Certificate
Business Real Estate Apprentice Certificate
Property Management Certificate
Real Estate Appraiser Certificate
Real Estate Marketing Certificate
Real Estate Secretarial Services Certificate

Certificate Programs

BUSINESS REAL ESTATE APPRENTICE CERTIFICATE

Units Required: 9.0

To sit for the real estate salesperson's exam, California Real Estate Law requires that prospective real estate licensees complete college level courses in Real Estate Principles, Real Estate Practices and one additional elective from the Group II list. This certificate program provides students with courses they need to comply with that law. This certificate, along with the successful completion of the California Real Estate Salesperson's exam, enables students to obtain employment as a real estate licensee within the state of California.

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

BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0

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

BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 127	Real Estate Office Management	3.0
BRE 139	Real Estate Economics	3.0
BRE 140	Real Property Management	3.0
BESC 141	Escrow 1	3.0

BASIC BUSINESS REAL ESTATE CERTIFICATE

Units Required: 18.0

This Certificate program thoroughly prepares the student to become a professional real estate sales-person in the state of California.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 142	Real Estate Marketing	3.0

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

BRE 101	Real Estate Practices	3.0
BADM 103	Financial Accounting	3.0

ADVANCED BUSINESS REAL ESTATE CERTIFICATE

Units Required: 27.0

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.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0

BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 126	Real Estate Finance	3.0
BRE 139	Real Estate Economics	3.0
OR		
BADM 101	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0

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

BADM 117	Legal Environment of Business	3.0
BESC 141	Escrow 1	3.0
BESC 142	Escrow 2	3.0
BRE 111	Legal Aspects of Real Estate II	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BRE 127	Real Estate Office Management	3.0
BRE 140	Real Property Management	3.0
BRE 142	Real Estate Marketing	3.0

PROPERTY MANAGEMENT CERTIFICATE

Units Required: 21.0

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.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 140	Real Property Management	3.0
BADM 103	Financial Accounting	3.0
BADM 110	Business Management	3.0

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

BRE 101	Real Estate Practices	3.0
BRE 127	Real Estate Office Administration	3.0

REAL ESTATE APPRAISER CERTIFICATE

Units Required: 21.0

When completed, the Certificate program will give the student the basic skills and education necessary to become a real estate appraiser.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BRE 139	Real Estate Economics	3.0

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

BRE 126	Real Estate Finance	3.0
BESC 141	Escrow I	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0

REAL ESTATE SECRETARIAL SERVICES CERTIFICATE

Units Required: 21.0 units minimum

The Certificate program will prepare the student for secretarial services within a real estate office by enhancing the practical knowledge of real estate and introducing computer applications in spreadsheets, database, and word processing.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BESC 141	Escrow I	3.0
BET 65	Speedwriting	3.0

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

BRE 127	Real Estate Office Administration	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

REAL ESTATE MARKETING CERTIFICATE

Units Required: 24.0

This Certificate program prepares those interested in professionally marketing real estate by examining the elements which bring buyers and sellers together.

Group I - All of the following must be completed:

BRE 100	Real Estate Principles	3.0
BRE 126	Real Estate Finance	3.0
BRE 139	Real Estate Economics	3.0
BRE 142	Real Estate Marketing	3.0
BADM 112	Introduction to Marketing	3.0
BADM 116	Human Relations in Business	3.0

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

BADM 114	Sales	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BADM 144	Business Communications	3.0

Associate Degree

To earn an Associate in Science degree with a major in Business Real Estate and Escrow, complete a minimum of 18 units from any of the certificate requirements

above or from any Business Escrow or Business Real Estate courses, and meet all Victor Valley College graduation requirements. BESC 138 (Cooperative Education) and BRE 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer
Not usually a transfer major. 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.

BUSINESS REAL ESTATE COURSES

These classes are open to all students with an interest in Real Estate. They are not just for Licensees.

BRE 51 MORTGAGE LOAN BROKERING AND LENDING
Units: 3.0 - 48-54 hours lecture. Elective for Broker's License. (No prerequisite)

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.

BRE 54 PRINCIPLES OF MORTGAGE ORIGINATION
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course is designed to provide the student with basic skills needed to originate loans. It includes taking the borrower from the qualification process to designing a loan that will fit individual needs. This course helps demonstrate how to find the right loan among the maze of multiple programs available to the borrower.

BRE 55 PRINCIPLES AND PRACTICES OF MORTGAGE PROCESSING
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course provides the student with the basics of loan processing and an overview of underwriting regulations and industry terminology. Students learn how to efficiently package and submit a loan for underwriting and approval. This course demonstrates how to analyze a loan application and relevant documents necessary for a loan submission. State and federal mandatory guidelines and disclosures are also discussed.

BRE 56 INTRODUCTION TO FINANCIAL PLANNING
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

Financial planning draws upon several business disciplines such as finance, banking, insurance, and real estate as well as behavioral sciences that include economics and psychology. This course emphasizes the student's ability to analyze, evaluate, and make decisions regarding the components of personal financial planning. Discussion topics include the time value of money, managing money, the importance of life, health, disability, property and liability insurance, managing investments, tax planning, estate planning, retirement planning and more.

BRE 60 ADVANCED REAL ESTATE APPRAISAL: COMPLIANCE AND REVIEW PROCEDURES
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course draws on the disciplines of real estate brokerage, finance, banking and appraisal with special attention to loss reduction due to underwriting and appraisal errors. Students with prior experience in the banking, mortgage, or appraisal industries will appreciate this course, however all are welcome. This course enhances the student's ability to analyze, understand and correct errors in real estate appraisals on federally required underwriting forms, narrative reports and electronic data exchanges. Discussion topics include appraisal analysis, valuation trends, demographic and census interpolation, reporting, communication and review. Uniform Standards of Professional Appraisal Practice will be discussed in relation to the forms reviewed.

BRE 61 ADVANCED REAL ESTATE APPRAISAL LAND VALUATIONS
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course offers investigative techniques used to analyze and evaluate data leading to land valuation reports. Topics include discussion of soils analysis, topographic study, market analysis, environmentally affected properties, subdivisions, and more. This course is a continued education elective for the California Real Estate Broker's license and all four types of California real estate appraisers.

BRE 62 ADVANCED REAL ESTATE APPRAISAL: THE NARRATIVE REPORT
Units: 1.0 - 16-18 hours lecture. (No prerequisite)

This course offers and demonstrates the techniques designed to assist appraisers in effectively communicating the results of their valuation processes. Special emphasis is placed on the narrative portion of the form and/or complete self-contained type reports.

BRE 100 REAL ESTATE PRINCIPLES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Introductory course stressing the study of basic information in fundamental subjects in the field of real estate. Topics include legal aspects, legal descriptions, encumbrances, financing, escrow, contracts, taxation, subdivisions and zoning, appraisal, landlord/tenant relations, and arithmetic. Required course before testing for the Department of Real Estate Salesman's License. Elective for Real Estate Broker's License.

BRE 101 REAL ESTATE PRACTICES
Units: 3.0 -48-54 hours lecture. CSU. (No prerequisite)

Working practices in office listings and sales methods leading to competence. General basic course leading toward professionalism in real estate practice. Advanced topics involve prospecting and listing techniques, real estate agency and disclosure, selling and marketing techniques, advertising, office operations, finance, property management and real estate investment. Required for Real Estate Broker's license. Mandatory course before testing for the Real Estate Salesman's license.

BRE 110 LEGAL ASPECTS OF REAL ESTATE I
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

A practical, applied study of California Real Estate Law which will help avoid legal difficulties arising from real estate transactions, instruments, zoning, and planning. This class is required for the Real Estate Broker's license and is an elective for the pretesting, educational requirements for the California Real Estate Salesman's license.

BRE 120 REAL ESTATE APPRAISAL
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course examines narrative appraisal reports, theories of valuation, studies in specific properties, neighborhood data, market research, cost analysis, causes of depreciation, and how to treat the misplaced valuation of residential properties. Course also covers how to start an effective "appraisal plan" and sources of information. This course is an elective for the pretesting, educational requirements for the California Real Estate Salesman's license.

BRE 121 ADVANCED REAL ESTATE APPRAISAL: INCOME PROPERTY
Units: 3.0 - 48-54 hours lecture. CSU. Elective for Broker's License. (No prerequisite)

Special emphasis given to income properties, how to obtain significant data and relate to the subject property, the importance of thorough research, and the introduction of capitalization methods.

BRE 125 TAXES AND REAL ESTATE INVESTMENT
Units: 3.0 - 48-54 hours Lecture. Advanced Finance course for Real Estate Broker License. CSU. (No prerequisite)

Introductory real estate investment course discusses ownership interests, sources of financing, tax aspects of real estate ownership, market and cash flow analysis for income property, land investing, creative financing, and the laws dealing with foreclosure property investing.

BRE 126 REAL ESTATE FINANCE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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 is an elective for the pretesting, educational requirements for the California Real Estate Salesman's license.

BRE 127 REAL ESTATE OFFICE ADMINISTRATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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 license.

BRE 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

BRE 139 REAL ESTATE ECONOMICS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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 is an elective for the pretesting, educational requirements for the California Real Estate Salesman's license.

BRE 140 REAL PROPERTY MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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 and is an elective for the pretesting, educational requirements for the California Real Estate Salesman's license.

BRE 142 REAL ESTATE MARKETING
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

A study of principles and processes involved in professionally marketing real estate. Course content includes: communication and marketing skills as practiced within the real estate industry, real estate advertising, target marketing, development of a marketing plan, product knowledge, people knowledge, qualifying both the buyer and the seller, negotiating and financing skills, and closing the escrow. Development of marketing tools including signs, maps, mail-outs and brochures, referrals, forms and media campaigns will also be covered.

BRE 148 SPECIAL TOPICS
See Special Topics listing (Variable units).

BRE 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

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.

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
Thomas Kennedy

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificate awarded.

Associate Degree
No associate degree is offered with a major in Chemistry. Chemistry courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Chemistry courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. CHEM 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Chemistry major
  Biochemistry major

- **University of California, Riverside**
  Chemistry major
  Biochemistry major

CHEMISTRY COURSES

CHEM 50 FORENSIC CHEMISTRY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. (No prerequisite)

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.

CHEM 72 BIOMOLECULAR SCIENCE
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Recommended: BIOL 100 or BIOL 107)

This course is a theoretical approach to laboratory techniques common to modern biotechnical/clinical laboratories. Principles of molecular biology, genetics, metabolism, and immunology will be studied with emphasis on their application to modern analytical methods. Information and Communication technology will be used to develop formal writing and public speaking skills. See cross listing for BIOL 72.

CHEM 100 INTRODUCTORY CHEMISTRY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite)

An introductory course in general, organic, and biological chemistry. This course is specifically designed for students preparing for careers in allied health, such as nursing and various fields of therapy. The course satisfies general education requirements for non-majors and assumes no background in chemistry. Basic math skills are highly recommended.

CHEM H100 HONORS INTRODUCTORY CHEMISTRY
Units: 6.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite)

A foundation in the fundamental concepts, theories, and methodologies of Introductory Chemistry is highly recommended. Critical thinking and analytical skills will be used to develop problem-solving strategies used in Chemistry. Emphasis will be on the use of communication and information technologies in the analysis and presentation of experimental data.

CHEM 114 ENVIRONMENTAL CHEMISTRY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

CHEM 120 INTRODUCTION TO NUTRITION
Units: 3.0 -48-54 hours lecture. CSU (No prerequisite) See cross listing for RMGT120.

This course focuses on the fundamentals of carbohydrates, proteins, fats, vitamins, minerals, and their roles in human metabolism. It is specifically designed for individuals directing nutrition programs, hospitals, and care centers of those acquiring degrees in allied health, child development, or restaurant management, as well as interested homemakers. Selected nutrition topics include personalized and vegetarian nutrition, menu planning, marketing options and chemistry of nutrition.

CHEM 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC

CHEM 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

CHEM 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

CHEM 201 GENERAL CHEMISTRY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: CHEM 100 with a grade of ‘C’ or better, and MATH 90 or higher).

Theories of atomic structure and the application of these theories to an understanding of bonding, solution processes, state of matter, gas laws, general properties of matter, and principles of stochiometric calculations. Laboratory emphasis on the development of experimental skills, the calculations and significance of experimental data.

CHEM 202 GENERAL CHEMISTRY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: CHEM 201 with a grade of "C" or better, and MATH 90 or higher with a grade of "C" or better).

Emphasis on calculations of thermodynamics, kinetics, equilibria, acid-base chemistry, electrochemistry, coordination compounds and polymers. Survey of or organic and biochemistry.

CHEM 206 INTRODUCTORY CHEMISTRY II: ORGANIC CHEMISTRY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation).
(Prerequisite: CHEM 100 with a grade of "C" or better.)

An introduction to fundamental concepts of Organic Chemistry for students entering professional careers in allied health. Emphasis is on the structure, reactivity and mechanisms, chemical properties and nomenclature of major organic functional groups and their relationship to biological systems.

CHEM H206 HONORS INTRODUCTORY CHEMISTRY II: ORGANIC CHEMISTRY
Units: 5.0 - 64-72 hours lecture and 48-54 hours laboratory. CSU. UC

Modern organic synthesis, biotech, and pharmaceutical laboratories assess the feasibility of their proposed syntheses using computer generated models of target compounds. Current trends in modern research indicate a growing dependence on computational chemistry. This program will extend topics covered in CHEM 206 into basic concepts of computational chemistry. Emphasis will be on molecular modeling techniques, acquisition, processing, and presentation of experimental data.

CHEM 207 INTRODUCTORY CHEMISTRY III: BIOCHEMISTRY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: CHEM 206 with a grade of "C" or better. Recent completion of CHEM 206 or equivalent is recommended.)

A one semester survey course in the fundamental principles of biochemistry for students entering professional careers in allied health. Emphasis is on the structure, function and physiological role of carbohydrates, lipids, proteins and nucleic acids.

CHEM H207 INTRODUCTORY CHEMISTRY III: BIOCHEMISTRY HONORS
Units: 5.0 - 64-72 hours lecture and 48-54 hours laboratory.

The application of molecular modeling techniques to biological macromolecules. Computer generated force-fields and molecular graphics will be used to study structural geometry, potential energy surfaces, energy gradients, bond energies, and bond angles. Confirmational analyses will be performed to gain a practical understanding of the advantages and limitation of molecular modeling.

CHEM 255 QUANTITATIVE ANALYSIS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: CHEM 202 or year course in General Chemistry)

Quantitative, gravimetric, volumetric, and instrumental methods of analysis. Stoichiometric calculations and applications of principles of chemical equilibrium to analytical problems. Laboratory accuracy required.

CHEM 281 ORGANIC CHEMISTRY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC (UC credit limitation).
(Prerequisite: CHEM 202 with a grade of "C" or better.)

An introduction to general principles of organic chemistry covering the structures, properties and reactivity of organic compounds. Emphasis is on molecular orbital theory, functional group reactivity, nomenclature, substitution and elimination mechanisms, stereochemistry, chemical equilibria and spectroscopy. Laboratory techniques include isolation, purification, synthetic procedures and spectroscopy. This is the first semester of a two semester sequence.

CHEM 282 ORGANIC CHEMISTRY
Units: 5.0 - 48-54 hours lecture and 96-108 hours laboratory. CSU, UC. (Prerequisite: CHEM 281 with a "C" or better).

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.

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.

Career Opportunities
Child Development Center Administrator
Child Development Center Teacher
Child Life Specialist
Early Childhood Education Specialist
Elementary School Teacher
Family Child Care Provider
Juvenile Worker
Nanny
Recreation Department Programs
Social Worker
Special Education
Therapist
Tutor

Faculty
Full Time
Marsha (Dee Dee) Cole
Mary Sypkens
Sandy Visser
Joanne Eccleston, Emeritus

Degrees and Certificates Awarded
Associate in Science, Child Development
Level I: Associate Teacher Certificate of Achievement
Level II: Teacher (preschool) Certificate of Achievement
Level III: Supervisor (preschool) Certificate of Achievement

Certificate Programs
The Child Development Department offers three Certificates of Achievement preparing students for different levels of entry into the field.

LEVEL I: ASSOCIATE TEACHER (PRE SCHOOL) CERTIFICATE OF ACHIEVEMENT

Units Required: 22.0

State and Federally Funded programs such as Head Start and State Preschool: This certificate satisfies all **educational** requirements for the Associate Teacher Permit, issued by the State of California. **Students must also show evidence of meeting the Experience Requirement before applying for the Permit (see below).** Permit applications can be obtained through the Child Development Department.

Private (Title 22) programs: This certificate satisfies all **educational** requirements to be a fully qualified preschool teacher in such programs.

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

ENGL 50	Writing Fundamentals	4.0
OR		
ENGL 101	English Composition	4.0
CHDV 100	Child Growth and Development	3.0
CHDV 106	Child, Family, and Community	3.0
CHDV 110	Principles and Practices	3.0
CHDV 142	Health, Safety and Nutrition	3.0
CHDV 150	Introduction to Curriculum	3.0
CHDV 160	Observation and Assessment	3.0

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

Experience Requirement necessary to apply for Child Development Permit. Students must complete 50 days of experience, of 3 or more hours per day, within the last two years. **(THIS IS NOT NECESSSARY FOR OBTAINING CERTIFICATE) Choose A or B:**

Option A – For students already working in the field.

A Verification of Experience Form must be complete and submitted with Permit Application.

Option B – For students with no work experience in the field.

CHDV 210 Practicum
2 units of CHDV 138 (Work Experience) spread over two terms, completed within the last two years.

Please note: Returning students may substitute CHDV 127A for CHDV 110 Principles and Practices. Submit the "Course Substitution for Certificate Requirements" form, which can be obtained in the Admission and Records and Counseling Departments.

LEVEL II: TEACHER (PRE SCHOOL) CERTIFICATE OF ACHIEVEMENT

Units Required: 45.0

This certificate satisfies all requirements for the Teacher Permit, issued by the State of California. The permit qualifies one to hold positions at the teacher level in State and Federally Funded programs such as Head Start and State Preschool. Choose either Option A or Option B. (Permit applications can be obtained through the Child Development Department.)

Option A – For students already working in the field.

All of the courses required for the Associate Teacher Certificate. **PLUS:**

CHDV 200	Teaching in a Diverse Society	3.0
CHDV 210	Practicum	4.0

16 General Education Units (Must be Associate Degree Applicable), including one in each of the following categories.

English (in addition to Eng 50)
Humanities
Social Science (Cannot be CHDV 106 or 106)
Math or Science

All coursework must be completed with a grade of "C" or better.

Experience Requirement necessary to apply for the Child Development Permit: Evidence of working in an early childhood program for 175 days of 3+ hours per day within the past 4 years. Use the Verification of Experience Form, which is included in the Permit Application, to document this experience. **(THIS IS NOT NECESSARY FOR OBTAINING CERTIFICATE)**

Option B – For students with no work experience in the field.

All of the courses required for the Associate Teacher Certificate, plus completion of **all** other requirements for the A.S. degree in Child Development.
(See a counselor to identify specific courses which will facilitate transfer to a university.)

LEVEL III: SITE SUPERVISOR (PRE SCHOOL) CERTIFICATE OF ACHIEVEMENT

Units Required: 60.0

This certificate satisfies all **EDUCATIONAL** requirements for the Site Supervisor Permit, issued by the State of California. This permit qualifies one to hold positions at the Site Supervisor level in State and Federally Funded programs such as Head Start and State Preschool. (See note below for information on how to obtain the **EXPERIENCE** requirements.)

Certificate Requirements Include:

ALL of the courses required for the Associate of Science Degree in Child Development including:

Child Development Courses: CHDV 100, 106, 110, 142, 150, 160, 200, 210

18 General Education Units as required for the AS Degree (CHDV 100 and 106 cannot be used to satisfy Social and Behavioral Science requirement)

CHDV 220, 239, and 240

All coursework must be completed with a grade of "C" or better.

PLEASE NOTE: Prior to applying for the Site Supervisor Permit, student must complete a Verification of Experience, documenting 350 days of work in an early childhood program of 3+ hours per day within 4 years including at least 100 days of supervising adults. (Permit applications can be obtained through the Child Development Department.)

Associate Degree
To earn an Associate Degree in Science with a major in Child Development, complete CHDV 100, 106, 110, 142, 150, 160, 200, 210, and meet all other Victor Valley College Associate Degree graduation requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Human Development major
  For information, you may wish to contact CSUSB's Human Development department at (909) 537-5570.

- **University of California, Riverside**
  Human Development major

Local Bachelors Programs
For information on the following programs located in the High Desert, please visit: www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets":

- **Azusa Pacific University, High Desert Regional Center**
  Human Development major

- **Brandman University, Victor Valley Campus**
  Early Childhood Development major

- **University of La Verne, High Desert Campus**
  Child Development major

CHILD DEVELOPMENT COURSES

CHDV 50 WORKING WITH YOUNG CHILDREN
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No pass)

This survey course provides an introduction to early childhood education. Classroom instruction and practical experiences will include child development, child guidance, health and safety issues and curriculum exploration. This course will provide a foundation for continued course work in the field.

CHDV 100 CHILD GROWTH AND DEVELOPMENT
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Successful completion of ENGL 50 or eligibility for ENGL 101.0 is strongly advised.)

A study of the child from conception through adolescence. This course addresses cognitive, physical, and social emotional development. Guidance for the developmental stages is included.

CHDV 106 CHILD, FAMILY AND COMMUNITY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

The scientific study of societal institutions which socialize the child, such as the family, school, peer group, community and media within the context of culture, religion, economics, politics and change. Major theoretical perspectives will be examined.

CHDV 110 PRINCIPLES AND PRACTICES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course provides an introduction to the critical principles and practices of the field of early childhood education. Emphasis is placed on introducing students to interaction strategies that build meaningful relationships, provide for guidance and discipline, and support play and exploration. Students will consider developmental theory and its implications on interaction through play and relationships. The course will provide a brief overview of the field of early childhood education, and introduce students to developmentally appropriate practices of observation, assessment and curriculum planning.

CHDV 111 INFANT AND TODDLER CAREGIVING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

A study of the physical, perceptual, socio-emotional, cognitive development and behavior of the young child from birth to age three. Emphasis will be on the translation of theories of development to appropriate practices in the caregiving environment.

CHDV 115 FAMILY CHILD CARE PROVIDER
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite. Grade Option)

This course will address the many factors involved in providing quality child care in one's home. This course will cover how to set up a safe, healthy and stimulating environment that meets the developmental needs of the diverse ages served in family day care homes. Providers will develop or refine their business policies and procedures, parent contracts, and personal philosophy and goals. Additionally, training in preventive health practices will enable providers to partially fulfill AB 243 requirements.

CHDV 132 MONTESSORI METHODS OF EDUCATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

This course is designed to introduce the student to Dr. Montessori's life, work, philosophy of education and classroom design. This will be accomplished through lecture, reading and exploration of her materials designed specifically for the education of the young child. Students will be exposed to a variety of such materials and will create materials to use in his/her own classroom.

CHDV 133 ART EXPERIENCES FOR YOUNG CHILDREN
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This curriculum course prepares students to support the young child's creative development. Students will select, develop, and present art materials and activities for young children. An understanding of appropriate developmental art experiences and the creative process will be stressed. Emphasis is placed on developing a classroom environment that promotes creative expression.

CHDV 134 LANGUAGE AND EARLY LITERACY DEVELOPMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course will focus on the young child's language acquisition and early literacy development. Emphasis will be on introducing students to developmentally appropriate activities and practices, which will foster language and early literacy. The course will allow students to develop curriculum materials. It will satisfy the program/curriculum requirement for licensing and credentialing.

CHDV 137 THE CHILD WITH SPECIAL NEEDS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course will provide the history of special education in the early childhood setting including an overview of legislation, assessment, curriculum development, and environmental issues. Students will identify the interrelationships of family, communities, and the early childhood educators.

CHDV 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

CHDV 141 BASICS OF SCHOOL-AGE CHILD CARE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CHDV 142 CHILD HEALTH, SAFETY, AND NUTRITION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course introduces the 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.

CHDV 143 INTRODUCTION TO THE HIGH/SCOPE CURRICULUM
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course provides students with a working knowledge of the High/Scope curriculum model. This model stresses an active learning classroom based upon Jean Piaget's theories of child development. Course will cover origins of model, classroom arrangement, curriculum, adult/child interaction and observation techniques.

CHDV 144 MATH AND SCIENCE EXPERIENCES FOR YOUNG CHILDREN
Units: 2.0 - 32-26 hours lecture. CSU. (No prerequisite)

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.

CHDV 145 MUSIC AND MOVEMENT EXPERIENCES FOR YOUNG CHILDREN
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite)

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.

CHDV 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

CHDV 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

CHDV 150 INTRODUCTION TO CURRICULUM
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Eligibility for ENGL 50 or ENGL 101.0 recommended.)

The study and application of curriculum design principles for early childhood educational programs. Course includes planning and evaluating developmentally appropriate activities and experiences that promote physical cognitive, creative, social and emotional growth in children. Planning a comprehensive unit of study is also included.

CHDV 160 OBSERVATION AND ASSESSMENT
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisites: CHDV 100, CHDV 106, CHDV 110 and CHDV 150 all with a grade of 'C' or better.)

This course offers an in-depth study of current observation and assessment approaches to understand and articulate development in children birth through age 8. Guided by developmental theory, students will learn how observation and assessment influence the design of early childhood settings, understanding and guiding child behavior, curricular plans, communication with families, and support program quality. Student must be aware that homework for this course involves observing children in a variety of settings. TB clearance advisory.

CHDV 200 TEACHING IN A DIVERSE SOCIETY
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisites: CHDV 100, CHDV 106, CHDV 110, CHDV 150 all with a grade of 'C' or better.)

This course is designed to help students become teachers who can explore and address diversity in ways that enhance the development of children in early childhood settings. It will address attitudes and behaviors toward others in the areas of culture, race, gender, age and abilities; the development of an anti-bias curriculum; the analysis of the classroom environment for culturally relevant and diverse materials and resources; as well as highlighting developmental issues and advocacy.

CHDV 210 PRACTICUM
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (Prerequisites: CHDV 100, CHDV 106, CHDV 110, CHDV 150 all with a grade of 'C' or better.)

This course focuses on the integration and application of child development theory to facilitate learning among young children. Students will complete 108 lab hours of supervised field experience at the campus Child Development Center or with an approved mentor teacher in the community. Emphasis is placed on developing effective teaching strategies, curriculum planning based upon observation and assessment, discipline and guidance techniques, cooperative relationships with staff and families, professional ethics and assessment of one's own professional competence. Current (within a year) medical verification of absence of tuberculosis (TB).

CHDV 220 THE MENTOR TEACHER/ADULT SUPERVISION
Units: 2.0 - 32-36 hours lecture. CSU. (Prerequisites: CHDV 106 and CHDV 100, or equivalent, with a grade of "C" or better.)

A study of the methods and principles of supervising adults in early childhood programs. Emphasis is placed 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.

CHDV 239 ADMINISTRATION OF CHILDREN'S PROGRAMS I
Units: 3.0 - 48-54 hours lecture. CSU. [Prerequisite: Completion of the State Department of Health required core courses (CHDV 106 and CHDV 100 or equivalent.) Currently working in the field recommended.]

This course focuses on funding, licensing, planning, organizing, and managing a variety of programs for young children. The administrator's role, site development, on-going organization, and working with the parents and volunteers explored. This course is designed to fulfill three of the six semester units of administration required for the site supervisor permit.

CHDV 240 ADMINISTRATION OF CHILDREN'S PROGRAMS II
Units: 3.0 - 48-54 hours lecture. CSU. [Prerequisite: Completion of the State Department of Health required core courses (CHDV 106 and CHDV 100 or equivalent.) Currently working in the field recommended.]

This course explores the human relations aspect of administering children's programs. The emphasis will be placed on leadership styles, communication strategies, and promoting a positive climate for staff and children. This course is designed to fulfill three of the six semester units of administration required for the Site Supervisor Permit.

COMMUNICATION STUDIES

Speech Communication is an expansive field which aims to: (1) analyze, understand, and facilitate effective expression of organized thought, and (2) facilitate successful interaction with self, others, society and the world. Skills developed within this field are readily applicable in daily life. A bachelor's degree in Speech Communication offers pathways to careers in law, education, government, public relations and advertising, arts and entertainment, social and human services, international relations and negotiations.

Career Opportunities
Administrator
Advertising
Counselor
Lobbyist
Marketing Specialist
Ministry
News Anchor
Public Information Officer
Publicity Manager
Speech Writer
Teacher

Faculty
Full Time
Jacqueline Augustine-Carreira
Ed Heaberlin
Gregory Jones
Steven McDevitt - Emeritus
Theresa Mirci-Smith - Emeritus
John Rude
Marjorie Milroy - 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 in this field, CSUSB has a program that might interest you. For the most up-to-date information on this program and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Communication major

COMMUNICATION STUDIES COURSES

CMST 105 INTERCULTURAL COMMUNICATION
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite.)

A course designed for the student to learn relevant intercultural communication elements, factors, and theories. Students will learn and be evaluated on: describing their cultural roots, creating an identity collage, defining worldview and cultural values, analyzing an intercultural encounter, describing an intercultural communication context, and exploring a specific intercultural topic. Students will demonstrate proficiency in the above through exams, individual and group presentations, and essays.

CMST 106 INTERPERSONAL COMMUNICATION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (UC credit limitation). (No prerequisite)

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.

CMST 107 FAMILY COMMUNICATION
Units: 3.0 - . 48-54 hours lecture. CSU. (No prerequisite)

An introduction to human communication in the setting of the family. The goal is to help the student understand how, through communication, people develop, maintain, enhance, or destroy family relationships. Students will study variables and the process of communication as they affect the interaction of their families and develop insight that will make it possible to apply this knowledge.

CMST 108 GROUP DISCUSSION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (UC credit limitation). (No prerequisite)

Practical application of the processes involved in group discussion with an emphasis on problem solving and decision making from structured to unstructured situations. Principles are applicable to groups as those found in schools, businesses, professions, and the family. This course is designed to develop interpersonal skills for thoughtful participation in a democratic society.

CMST 109 PUBLIC SPEAKING
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

A course designed for the student to learn how to prepare, organize, and deliver public speeches. Students will learn and be evaluated on: constructing a speaking outline, analyzing an audience, adapting to the occasion, and using effective speaking delivery techniques. Students will demonstrate proficiency in the above through the delivery of speeches in the classroom.

CMST 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC

CMST 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

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.

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

Faculty
Full Time
Ed Burg
Reiji Cass
Shane Thomas
Paul Tonning

Degrees and Certificates Awarded
Associate in Science, Computer Information Systems
Database Administration Certificate
MySQL Database Developer Certificate
NetWare Certificate
Network Specialist Certificate
Programming I Certificate
Programming II Certificate
Productivity Software Specialist Certificate
UNIX Administrator Certificate
Visual Basic Programming Certificate
Web Authoring Certificate

Certificate Programs

DATABASE ADMINISTRATION CERTIFICATE

Unit Required: 18.0

The Database Administration Certificate prepares the student with a foundation for database administration using the Oracle® database software.

All of the following must be completed:

CIS 105	Introduction to Systems Analysis	3.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIS 281	Database Management	4.0
CIS 287A	Structured Query Language A (SQL A)	2.0
CIS 287B	Structured Query Language B (SQL B)	2.0
CIS 288A	Oracle® A	2.0
CIS 288B	Oracle® B	2.0

MySQL DATABASE DEVELOPER CERTIFICATE

Units Required: 11.0

The MySQL Database Developer Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in developing production relational MySQL database applications. By being certified, clients, customer, and employers are ensured that the database developer is competent and professional.

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

CIS 91A	MySQL Administration A	2.0
CIS 91B	MySQL Administration B	2.0
CIS 96A	Structured Query Language A Using MySQL	2.0
CIS 96B	Structured Query Language B Using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0

NETWARE CERTIFICATE

Units Required: 16.5

Provides the student with training in the popular network environment of Novell NetWare.

All of the following must be completed:

CIS 101	Computer Literacy	4.0
CIS 252	NetWare 6 Advanced Administration	2.5
CIS 67	Fundamentals of Networking	2.5
CIS 72	Novell NetWare 6 Basic Administration	2.5
CIS 77	NetWare Service and Support	2.5
CIS 79	NDS Design and Implementation	2.5

NETWORK SPECIALIST CERTIFICATE

Units Required: 16.5

This certificate program prepares the student to begin a career in the computer networking field and working and administering a variety of popular network platforms including UNIX, Microsoft and Novell.

All of the following must be completed:

CIS 123	Introduction to Operating Systems: UNIX	3.0
CIS 124	Fundamentals of Data Communication	2.0
CIS 50	Computer Ethics	2.0
CIS 67	Fundamentals of Networking	2.0

Choose one of these two options:

CIS 139	Windows XP For Power Users	4.0
OR		
CIS 240A	Windows 2000 Professional	

Choose one of these three options:

CIS 240B	Windows 2003 Server Administration	4.0
OR		
CIS 72	Novell NetWare 6 Basic Administration	1.5
& CIS 252	NetWare 6 Advanced Administration	2.0
OR		
CIS 261	UNIX System Administration A	2.0
& CIS 262	UNIX System Administration B	2.0

PROGRAMMING I CERTIFICATE

Units Required: 27.0

This certificate trains the student to become a programmer with some of the most popular programming such as C and Visual BASIC.

All of the following must be completed:

CIS 50	Computer Ethics	2.0
CIS 64	Computer Mathematics	3.0
BADM 144	Business Communications	3.0
CIS 101	Computer Literacy	4.0
OR		
CIS 103	Foundations of Computer Technology	4.0
CIS 105	Introduction to Systems Analysis	3.0
CIS 201	C++ Module A	4.0
CIS 202	C++ Module B	4.0
CIS 210	Visual BASIC Programming	4.0
OR		
CIS 206A	Java A	2.0
& CIS 206B	Java B	2.0

PROGRAMMING II CERTIFICATE

Units Required: 22.0

Completion of this certificate makes the student well versed in most popular programming languages and ready for business and highly technical software development.

All of the following must be completed:

CIS 104	Object-oriented Software Design	3.0
CIS 108	Assembly Language Programming	3.0
CIS 203	C++ Module C	4.0
CIS 50	Computer Ethics	2.0
CIS 64	Computer Mathematics	3.0
BADM 144	Business Communications	3.0
CIS 211	Advanced VB Programming A or B or C	4.0
OR		
CIS 206A	Java A	2.0
& CIS 206B	Java B	2.0

PRODUCTIVITY SOFTWARE SPECIALIST CERTIFICATE

Units Required: 25.0

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

Group I - All of the following must be completed:

CIS 101	Computer Literacy	4.0
OR		
CIS 103	Foundations of Computer Technology	4.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIS 111	Multimedia Presentations	4.0
CIS 136	Introduction to Internet/WWW	2.0
CIS 139	Windows XP For Power Users	4.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0
BADM 144	Business Communications	3.0

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

BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BADM 106	Accounting on Microcomputers	2.0
BADM 107	Accounting on Microcomputers	2.0

UNIX ADMINISTRATOR CERTIFICATE

Units Required: 14.0

The UNIX Administrator Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in designing, implementing and maintaining UNIX and Linux based networks. By being certified, clients, customers, and employers are ensured that the UNIX administrator is well equipped to handle the day-to-day operations associated with a UNIX based network as well as the unforeseen problems that tend to arise in any network.

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

CIS 50	Computer Ethics	2.0
CIS 90	Introduction to UNIX Operating System	4.0
CIS 93	PERL	2.0
CIS 261	UNIX System Administration A	2.0
CIS 262	UNIX System Administration B	2.0

VISUAL BASIC PROGRAMMING CERTIFICATE

Units Required: 16.0

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

All of the following must be completed:

CIS 210	Introduction to Visual Basic Programming	4.0
CIS 211A	Advanced VB Programming A	4.0
CIS 211B	Advanced VB Programming B	4.0
CIS 211C	Advanced VB Programming C	4.0

WEB AUTHORING CERTIFICATE

Units Required: 14.0

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

All of the following must be completed:

CIS 121	Introduction to Flash	4.0
OR CIS 111	Multimedia Presentations	4.0
CIS 136	Introduction to Internet/WWW	2.0
CIS 137	Introduction to HTML	2.0

CIS 205	Javascript	4.0
CIS 50	Computer Ethics	2.0

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

Note: Typically, majors in Computer Science require the following courses taken prior to transfer: CHEM 201, CIS 201, 202; ECON 102; MATH 226, 227, 228, 231; PHYS 201, 203, 202, H204. A*n alternative to the CIS transfer major that appeals to many students is Administration, with an emphasis in CIS. See Business Administration.*

- **California State University, San Bernardino**
  Computer Science major
  Computer Systems major
  Computer Engineering major

- **University of California, Riverside**
  Computer Science major
  Computer Engineering major

COMPUTER INFORMATION SYSTEMS COURSES

CIS 50 COMPUTER ETHICS
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

CIS 56 PROJECT MANAGEMENT
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

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.

CIS 64 COMPUTER MATHEMATICS
Units: 3.0 - 24-27 hours lecture and 48-54 hours laboratory. (No prerequisite.)

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.

CIS 67 FUNDAMENTALS OF NETWORKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory OR 96-108 hours individualized instruction. (No prerequisite. Recommended preparation: CIS 101.)

This course presents a broad overview of the fundamentals of networking computers. It discusses in some detail the various network topologies, architectures, industrial standard, standards-defining organization, and the practical use of networks. This course is designed to prepare students to take the Network+ certification exam from CompTIA.

CIS 72 NOVELL NETWARE 6 BASIC ADMINISTRATION
Units: 2.5 - 24-27 hours lecture and 48-54 hours laboratory OR 80-90 hours individualized instruction. (No prerequisite)

This course provides instruction on the fundamentals of system administration for NetWare 6x. It is designed to provide students with the necessary knowledge and skills to perform competently in the role of network administrator or system manager. Students completing this course will be able to accomplish basic and fundamental network management tasks in a NetWare 6x environment. This course is highly recommended for those seeking the Certified NetWare Engineer certification from Novell Corporation and for new NetWare 6x administrators.

CIS 75 INTRODUCTION TO NETWORK SECURITY: NETWORK+
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory OR 96-108 hours individualized instruction. (No prerequisite)

Presents security topics covering general security concepts, communications security, infrastructure security, basics of cryptography, operational and organizational security. Topics include hacking, viruses, cryptography, detection and prevention on both wired and wireless LANs.

CIS 79 NOVELL DIRECTORY SERVICES DESIGN AND IMPLEMENTATION
Units: 2.5 - 32-36 hours lecture and 24-27 hours laboratory. CSU (Prerequisite: CIS 72)

This course teaches network administrators, network designers, and networking consultants the skills needed to create a Novell Directory Services (NDS) design and implementation strategy. Students will complete an NDS design and strategy implementation schedule using templates that can be reused to create a design for their workplace.

CIS 80 OPERATING SYSTEMS: MAC OS X
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course introduces the Mac OS X operating system. Topics include the graphical user interface, OS X preferences, account management, spotlight, disk management, printing, networking, program installation and removal, system security, email, Internet access, display management, address book, calendaring, voice over IP, instant messaging, quicktime, and support.

CIS 81 ILIFE APPLICATIONS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course is designed for the beginning Apple user who wants to get the full use out of their computer's capability to create, modify and design digital images, music, videos (home movies) and podcasts.

CIS 83 PROGRAMMING IN PYTHON
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

Python is a popular programming language that has taken a primary role in many companies including NASA, Google, Industrial Lights and Magic. Python uses an elegant syntax, making the programs easier to write and read, which also makes it an ideal language for beginning programmers. The foundation that students achieve can be applied to digital animation programs, and game programming. No prior programming experience is assumed.

CIS 90 INTRODUCTION TO THE UNIX OPERATING SYSTEM
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course introduces the Unix and Linux operating systems. Topics include the history of Unix, commands and utilities, file system structure, shells, graphical user interfaces, networking, text editing and shell programming.

CIS 91A MYSQL ADMIN A
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No Prerequisite)

This course is designed to provide students with an introduction to the MySQL relational database management system. Students will learn how to design, install, configure and secure MySQL databases. The student should have prior experience with the fundamentals of databases.

CIS 91B MY SQL ADMIN B
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No Prerequisite)

This second course in MySQL database administration is designed to provide students with an advanced approach to current database administration issues in enterprise level databases. Topics include: transactions, multiple servers, replication, locking and administration interfaces.

CIS 93 PERL
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course is designed to provide students with an understanding of the Perl scripting language used in Unix and Linux systems. Students will learn how to design and implement dynamic scripts through strings, operators, variables, arrays, control structures, expressions, functions, file handles and database access controls.

CIS 94 PHP PROGRAMMING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course is designed to provide students with an introduction to programming web-based applications using PHP. Students will learn how to design, code and implement dynamic web sites. This course will move the student from an understanding of XHTML to the development of powerful web applications that can be deployed over the Internet.

CIS 95 PHP+MYSQL WEB APPLICATION
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course focuses on providing students experience with advanced programming of web-based applications using PHP+MySQL. Students will learn how to design, code and implement data driven web sites. This course will move the student from an understanding of PHP (Hypertext Preprocessor) to the development of powerful web applications that can be deployed over the Internet or the intranet.

CIS 96A STRUCTURED QUERY LANGUAGE
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No Prerequisite)

This is the first of two courses in Structured Query Language using the MySQL database management system. Topics include concepts of relational databases and SQL, creating and using databases and performing queries.

CIS 96B STRUCTURED QUERY LANGUAGE
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No Prerequisite)

This is the second course in Structured Query Language using the MySQL relational database management system. Topics include: Joins, IF/Case statements, indexing, batch operations and locking strategies.

CIS 97 XML (EXTENSIBLE MARKUP LANGUAGE) PROGRAMMING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No Prerequisite)

This course introduces students to the foundations that comprise the XML family of technologies. Topics include: well-formed XML syntax rules; validation of XML using DTDs and Schemata; introductory DOM and SAX Scripting; creating XML data islands on XHTML pages; using CSS, XSL, XSL-FO and XSLT to style XML content; move data to/from databases using XML; and several advanced topics.

CIS 101 COMPUTER LITERACY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

This is a survey course which provides an overview of computer technology for multi-disciplinary majors. Using laboratory projects supported by the lecture, the student gains “hands- on” familiarity with different operating systems, word processors, spreadsheets, database management systems, programming, networks and the use of the Internet (or the Information Superhighway).

CIS 104 OBJECT-ORIENTED ANALYSIS AND DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite, Grade Option)

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.

CIS 105 INTRODUCTION TO SYSTEMS ANALYSIS
Units: 3.0 - 48-54 hours lecture. CSU. Offered Spring. (No prerequisite)

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.

CIS 106 INTRODUCTION TO COMPUTER TECHNOLOGY FOR EDUCATORS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

A survey course which provides an overview of computer technology for multi-disciplinary majors, but with emphasis on its role in educational settings. The course provides instruction in a variety of topics supported by hands-on laboratory work with operating systems, word processing, spreadsheets, databases, desktop publishing, programming, networks, and the Internet. Application and evaluation of computer technology in learning environments serves as the overall framework. See cross listing for ETEC 106.

CIS 107 INTRODUCTION TO THE INTERNET FOR EDUCATORS
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU (No prerequisite)

A course for education students or current teachers to acquire the skills needed to effectively utilize the Internet in the classroom. Emphasis will be placed on computer-mediated communication with the World Wide Web. Students will become well versed in the use of Web browsers, FTP, newsgroups/asynchronous discussion, e-mail, and chat/synchronous discussion. See cross listing for ETEC 107.

CIS 108 ASSEMBLY LANGUAGE PROGRAMMING
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

Designed to train students to prepare and write the basic assembly language programs for microcomputer systems in both business and scientific applications.

CIS 111 MULTIMEDIA PRESENTATIONS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

CIS 120 INTRODUCTION TO MACROMEDIA DREAMWEAVER
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

This course teaches students how to use the web-authoring tool Dreamweaver. Covered topics include Dreamweaver basics, website set-up, animation, multi-media, and more.

CIS 121 INTRODUCTION TO FLASH
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

Flash is an advanced tool for creating graphics, animation, multimedia components that can be incorporated into other software applications such as web pages, or can function on their own. This is a beginning course on Flash. It teaches students the Flash basics, graphics, texts, layers, symbols, frames, animations, tweens, interactivity, action scripts, etc.

CIS 124 FUNDAMENTALS OF DATA COMMUNICATIONS
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite)

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.

CIS 136 INTRODUCTION TO THE INTERNET
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (No prerequisite)
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 viewers, 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.

CIS 137 INTRODUCTION TO HTML
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (No prerequisite.)

This course 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.

CIS 138 COOPEATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

CIS 139 WINDOWS FOR POWER USERS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Recommended preparation: CIS 101.)

Students will gain experience in installing, navigating, configuring, optimizing, troubleshooting, and customizing the current version of Windows. Additional subject which will be covered include networking, disk management, diagnostics and using the Internet.

CIS 201 C++MODULE A
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No Prerequisite. CIS 101 recommended)

An introduction to programming using the C++ language. This course is appropriate for those wishing to learn the principles of computer programming and to gain some initial experience with C++.

CIS 202 C++MODULE B
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisites: CIS 201 with a minimum grade of "C")

The second in the C++ series, this course teaches the student who is familiar with the language how to use its object-oriented features in depth. Subject matter includes: designing and implementing classes, abstract

data types, overloading operators, inheritance, and polymorphism.

CIS 205 JAVASCRIPT
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

JavaScript is the only wide-spread programming language for web pages on virtually all browsers. By incorporation JavaScript into HTML documents, web page contents become dynamic, personalized and interactive. Even with server-side technology, such as ASP.NET and PHP, JavaScript is still a must since many features such as mouseover, etc., are not supported by any server-side programming. This course teaches students how to program using JavaScript from the beginning; it also prepares students for more advanced web development courses including ASP.NET and PHP.

CIS 206A PROGRAMMING JAVA MODULE A
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (No prerequisite)

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.

CIS 206B JAVA PROGRAMMING B
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. CSU. (Prerequisite: CIS 206A with a minimum grade of "C", Grade Option)

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.

CIS 210 PROGRAMMING IN VISUAL BASIC
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite.)

Visual Basic is the world's most popular programming language used for application development. This course is based on the latest VB.NET. VB is an object-oriented programming language suitable not only for Windows applications, but also for Web applications. While retaining its advantages in ease of learning, efficiency at developing sophisticated applications, VB.NET has now added an array of powerful features such as Web forms, mobile controls, support for XML, full compatibility with other languages (such as C#, Visual C++, Cobol, NET), etc. Students will learn all the programming basics using VB.NET, as well as being exposed to topics such as Object-Oriented programming, Database programming, and Web programming.

CIS 211A ADVANCED VB PROGRAMMING MODULE A: ADVANCED TOPICS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIS 210. Recommended: CIS 104)

This is an advanced programming course using VB.NET. The course focuses on developing Object-Oriented applications using the latest Microsoft .NET technology. Topics covered include .NET Framework and CLR, class implementation, inheritance, polymorphism, exception handling, multithreading, developing custom controls for Windows forms and Web forms, etc.

CIS 211B ADVANCED VB PROGRAMMING MODULE B: DATABASE PROGRAMMING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (Prerequisites: CIS 210 and CIS 280, or equivalent)

This is an advanced programming course using VB.NET. The course focuses on developing desktop/Web applications using Microsoft's new ADO.NET technology. ADO.NET, based on XML, provides platform interoperability and scalable data access. Topics covered include the .NET Framework, ADO.NET, SQL, DataSet, XML, ADO.NET classes libraries, Web Services, etc.

CIS 211C ADVANCED VB PROGRAMMING MODULE C: WEB PROGRAMMING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (Prerequisites: CIS 210 and CIS 205, or equivalent. Recommended: CIS 261 and 262)

This is an advanced programming course using VB.NET. The course focuses on developing Web applications using
Microsoft's ASP.NET technology. ASP.NET is a powerful server-based technology, designed to create dynamic Web sites and Web-based distributed applications, or corporate intranet applications. Topics covered include the .NET Framework, ASP.NET class libraries, Web forms, ASP.NET Server controls, ASP.NET Data Access. XML and Web Services, ASP.NET mobile controls, etc.

CIS 240A WINDOWS VISTA PROFESSIONAL
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 101 or equivalent)

An introduction to operating system design and operation using Windows Vista Professional version. Topics include: the design and philosophy of the

Windows vista operating system, the differences between various Windows Vista versions, user issues in Windows Vista such as using Vista's Graphical User Interface, and basic installation issues. Emphasis will be given to comparing Windows Vista Workstation and Windows 2003 Server. Hands-on experience will be stressed.

CIS 240B INTRODUCTION TO MICROSOFT WINDOWS 2003 SERVER ADMINISTRATION
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIS 240A or equivalent).

Students will learn how to administer a Windows NT Server system on a network. Topics include: installation, user management, security, performance issues, domains, World Wide Web and related services, using NT and other network operation systems, network printing, the NT registry, backups, and setting up applications.

CIS 252 NETWARE 6 ADVANCED ADMINISTRATION
Units: 2.5 - 32-36 hours lecture and 24-27 hours laboratory. CSU. (Prerequisite: CIS 72 with a grade of 'C' or better.)

Equivalent of Novell Course 3043. 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. It is one of five courses needed for Certified NetWare Engineer certification (CNE).

CIS 261 UNIX SYSTEM ADMINISTRATION A
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 90 with a grade of 'C' or better.)

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.

CIS 262 UNIX SYSTEM ADMINISTRATION B
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite.)

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.

CIS 280 FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEMS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

CIS 281 DATABASE MANAGEMENT
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIS 280 or equivalent)

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.

CIS 287A STRUCTURED QUERY LANGUAGE A
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 280 with a grade of 'C' or better.)

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.

CIS 287B STRUCTURED QUERY LANGUAGE B
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 287A with a grade of 'C' or better.)

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.

CIS 288A ORACLE A
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 280; Recommended preparation: CIS 281)

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.

CIS 288B ORACLE B
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 288A or equivalent)

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.

CIS 290A MS SQL SERVER ADMINISTRATION A
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 280 with a grade of 'C' or better. Recommended Preparation: CIS 281)

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.

CIS 290B MS SQL SERVER ADMINISTRATION B
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIS 290A with a grade of 'C' or better.)

The MS SQL Server is Microsoft's database server software. This course is the continuation of CIS 290A. It will review the basic features of SQL Server administration and then focus on advanced topics of using SQL Server such as performance and tuning.

COMPUTER INTEGRATED DESIGN AND GRAPHICS (CIDG)

Design Your Future

The Computer Integrated Design and Graphics (CIDG) at Victor Valley College is growing to keep pace with our High Desert community. We have many new and exciting courses, programs, and certificates to meet the needs of our students. Our focus is on designing courses and certificate programs that will provide students with the knowledge and skills to secure a job in a career field that has unlimited potential.

The cornerstone of the department remains our Computer Aided Drafting & Design (CADD) program. There are five new certificates that have been designed to meet the needs of students new to the field of CADD and those experienced professionals looking to upgrade their software knowledge. A core certificate is offered for students with a limited knowledge of drafting, mathematics and blueprint reading. (Drafting Technician I) Two entry-level certificates are offered in the areas of CADD and Computer Animation. We have also included two specialized certificates in the areas of Architectural CADD and Civil CADD.

The Computer Animation Program has a new certificate that will help prepare students for entry-level positions in the animation industry. Our Animation Program covers such topics as character animation, working with color, texture, lighting, cameras, sound and 3D art. The primary software package taught is Autodesk's 3ds Max while additional software such as Character Studio and Adobe Photoshop are used to supplement the curriculum.

A third program, and newest within our CIDG Department is our Geographic Information Systems (GIS). We are very excited about our GIS program and believe there will be many job opportunities for our students who complete this certificate, and we hope to add more certificates in the future. GIS helps fire/rescue and EMS protect life and property using information and analysis as a powerful tool. GIS puts spatial intelligence at the fingertips of dispatchers and field personnel ensures proper response time. GIS is essential for all phases: preparation, mitigation, response, and recovery of Emergency and Disaster Management. Law Enforcement can use GIS to discover how to leverage data collected each day to create intelligence you can use and share. Federal, state, local, and tribal agencies use GIS to support the homeland security mission. Wildland Fire Management accesses GIS information to increase safety, efficiency, and resource management.

Career Opportunities
GIS Careers
GIS Specialist
GIS Technician
GIS Fire Analyst
GIS Project Manager

Emergency and Disaster Management
Wildland Fire Management
Homeland Security
Law Enforcement
Fire/Rescue

CAD Careers
Architect
Architectural Drafter
CAD Management
CAD Operator
Cabinet Shop Detailer
Civil Drafter
Computer Animator
Community College Instructor
Construction Technician
Desk-Top Publisher
Electrical Drafter
Electronics Drafter
GIS Technician
Graphics Designer
Interior Designer
Landscape Architect
Landscape Designer
Mapping Specialist
Mechanical Drafter
Public Works Technician
Rendering Specialist
Steel Fabricator Drafter
Structural Drafter
Technical Illustrator

Animation Careers
3D Modeler
Texture Artist/Painter
Lighting Specialist
Character Designer
Character Animator
Special F/X Animator
Game Level Designer
Storyboard Artist
Background Artist
Graphic Designer

Faculty
Full Time
Claude Oliver
Shuron Taylor
Gary Menser
Steve Nelle

Degrees and Certificates Awarded
Associate in Science, CIDG
Drafting Technician I Certificate
CADD I Technician
Architectural CADD Technician I Certificate
Civil CADD Technician I Certificate
Digital Animation Technician I Certificate - 3ds Max
Digital Animation Artist Certificate
Visual Communications Graphic Design Certificate
Visual Communications Print Production Certificate
Geographic Information Systems for Emergency Response and Management Certificate

Certificate Programs

DRAFTING TECHNICIAN I CERTIFICATE

Units Required: 12.0

Select at least 6 units from Group I and 6 units from Group II

Group I

CIDG 101	Introduction to Drafting	3.0
CIDG 103	Blueprint Reading for Construction	3.0
CIDG 104	Blueprint Reading for Industry	3.0
CT 105	Technical Sketching	3.0

Group II

CT 107	Technical Mathematics	3.0
CT 108	Advanced Technical Math	3.0
MATH 90	Intermediate Algebra	4.0
MATH 104	Trigonometry	4.0

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

Units Required : 9.0

All of the following must be completed:

CIDG 103	Blueprint Reading for Construction	3.0
CIDG 250	Architectural Computer Aided Design I	3.0
CIDG 108	Architectural Computer Aided Design II	3.0

CADD (COMPUTER AIDED DESIGN AND DRAFTING) TECHNICIAN I CERTIFICATE

Units Required: 9.0
All of the following must be completed:

CIDG 110	Two Dimensional AutoCAD	3.0
CIDG 210	Advanced Two Dimensional AutoCAD	3.0
CIDG 120	Solids Modeling and Three Dimensional CADD	3.0

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

Units Required: 9.0

The Civil CADD Technician I certificate will prepare students for an entry level position in the Civil drafting field. Civil drafters prepare drawings and topographical and relief maps used in major construction or civil engineering projects, such as highways, bridges,

pipelines, flood-control projects, and water and sewage systems.

Civil CADD Technician I

CIDG 230	Civil Engineering using Land Desktop I	3.0
CIDG 231	Civil Engineering using Land Desktop II	3.0
CIDG 80	Geographical Information Systems for Emergency Management and Government Services I **or**	3.0
AGNR 171	Intro to Geographic Information Science	3.0

DIGITAL ANIMATION TECHNICIAN I 3ds Max CERTIFICATE

Units Required: 9.0

The 3ds Max certificate is designed to offer students a detailed look at one of the Animation industry's premier 3D packages. The courses taken to complete the certificate provide students an opportunity to learn a variety of topics, including how to model 3D objects, how to create realistic textures and materials, the art of camera and lighting techniques, and a variety of keyframing solutions to bring their ideas to life. In addition to completing both individual and group projects, students also delve into the traditional principles of animation that serve to heighten the level of realism and believability of an individual's work.

All of the following must be completed with a grade of "C" or better.

CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

Units Required: 15.0

The Digital Animation Artist certificate is designed to expand an individual's expertise in 3D Animation by requiring additional training in traditional art principles and techniques. Employers many times view an animator who possesses the ability to both draw and more thoroughly understand concepts and practices specific to traditional art painting as more well-rounded and work-ready. By earning the Digital Animation Artist certificate, students will better position themselves for employment opportunities in this fast-paced and competitive field. An Adobe Photoshop course specific to 3D Animation applications is also required to earn a certificate.

Complete the requirements listed in both Group I and Group II

GROUP I - Animation Track

Choose between software package options 1 or 2
All of the following must be completed with a grade of "C" or better.

Option 1: 3ds Max

CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
MERT 56	Photoshop for Animators	3.0

Option 2: SoftImage

MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage	3.0
MERT 52	Digital Character Animation	3.0
MERT 56	Photoshop for Animators	3.0

GROUP II - Art Track

Choose any ONE of the following courses.
Must be completed with a grade of "C" or better.

ART 101	Survey of Art History	3.0
ART 104	Film as an Art Form	3.0
ART 112	Design I	3.0
ART 113	Design II	3.0
ART 122	Introduction to Life Drawing	3.0
ART 124	Anatomy for Life Drawing	3.0
ART 125	Drawing I	3.0
ART 141	Sculpture I	3.0

GEOGRAPHIC INFORMATION SYSTEMS FOR EMERGENCY RESPONSE AND MANAGEMENT CERTIFICATE OF CAREER PREPARTION

Units Required: 13.0

Every emergency occurs within a geographic boundary. Using GIS helps support the decision making process that requires the geographic distribution of resources. This certificate is designed to prepare students for the field of GIS support for emergency management, including mitigation, preparation, response, and recovery.

GIS FOR EMERGENCY MANAGEMENT & GOVERNMENT SERVICES

CIDG 80	Geographical Information Systems for Emergency Management and Government Services I	3.0
CIDG 81	Geographical Information Systems for Emergency Management and Government Services II	3.0

AGNR 171	Intro to Geographic Information Science	3.0
FIRE 58	Intro to Emergency Management	4.0

VISUAL COMMUNICATIONS CERTIFICATE GRAPHIC DESIGN

Units Required: 17.0

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

CIDG 70	Design for Graphic Artists	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 72	Computer Illustration	3.0
CIDG 73	Typography and Layout	3.0
CIDG 79	Multimedia and Web Design	4.0

VISUAL COMMUNICATIONS CERTIFICATE PRINT PRODUCTION

Units Required: 16.0

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

CIDG 70	Design for Graphic Artists	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 73	Typography and Layout	3.0
CIDG 75	Page Layout and Design	3.0
CIDG 77	Print Production Processes	3.0

Associate Degree

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

Transfer

Not a transfer major. Most CIDG courses transfer as Electives or fulfill subject credit requirements. Some CIDG courses fulfill lower division requirements for a related major. Students in this program sometimes choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

COMPUTER INTEGRATED DESIGN AND GRAPHICS COURSES

CIDG 50 DRAFTING LABORATORY

Units: 1.0-4.0 - 48-54 hours of laboratory required for each unit. (No prerequisite. Grade Option) This course may be taken two times.

Drafting laboratory provides the additional time, equipment, and instruction necessary to develop problem solving, board or AutoCAD skills at each individual's own pace.

CIDG 65 3DS MAX ADVANCED EFFECTS AND COMPOSITING

Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: CIDG 260. Grade Option) This course may be taken four times.

Students will learn advanced concepts and procedures required for creating high quality 3D special effects. Topics will include particle systems, space warps, and reactor. Rendering techniques incorporating depth of field, motion blur, and anti-aliasing filters will also be discussed. Alpha channel compositing techniques will be addressed in detail. Students will also explore and analyze relevant issues pertaining to the computer animation industry.

CIDG 70 DESIGN FOR GRAPHIC ARTISTS

Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course covers the fundamental elements and principles of design. This course uses demonstration of the fundamentals and reinforces them through assignments and projects. Emphasis will be placed on developing techniques and vocabulary that will enable the student to problem solve and communicate ideas, concepts and solutions. Students will also learn how to properly critique design.

CIDG 71 SURVEY OF COMPUTER GRAPHICS STUDIO

Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course will introduce students to industry standard software packages used in visual communications. Students will be instructed on the basic use of draw, paint/photo, layout, multimedia, web and digital video applications. Topics covered include: Operating systems basics, drawing and painting on the computer, digitizing and editing sound and video and designing for interactivity.

CIDG 72 COMPUTER ILLUSTRATION

Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers the fundamental elements of illustration including history, design, color theory and appropriateness for specified use in the graphics industry. Students will create a series of illustrations using software techniques and skills developed through lectures, demonstration and assigned projects.

CIDG 73 TYPOGRAPHY AND LAYOUT
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

In this course students will learn how to use type as a graphic design element using industry standard techniques and tools. Students will strengthen their use of type as a design element through a variety of projects ranging from elementary exercise to intermediate presentations. In addition, students will examine the history of type and typesetting, modern methodologies, principles and aesthetics of good typographic design.

CIDG 75 PAGE LAYOUT AND DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course introduces students to the computer as a page layout and design tool. Emphasis will be on using industry standard software to simplify the paste-up and pagination process when producing multi-page printed materials. Students will learn the terminology and techniques of page layout so that they may communicate within the industry. Class projects will develop the ability to work as a team to produce printed materials within time and technical constraints.

CIDG 77 PRINT PRODUCTION PROCESSES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

A study of the processes used in the printing industry. Emphasis will be placed on terminology, practices, and techniques for effective communication with printing professionals. Class projects will develop the students' ability to design within the necessary parameters.

CIDG 79 MULTIMEDIA AND WEB DESIGN
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

This course teaches graphic artist the tools and procedures for designing graphics for the computer screen. This course will give an overview of standard industry software used for creating multimedia presentation and web pages. This course does not focus on HTML or scripting language but is focused on the development of the visual content.

CIDG 80 GEOGRAPHICAL INFORMATION SYSTEMS FOR EMERGENCY MANAGEMENT AND GOVERNMENT SERVICES I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides an in depth introduction to: (a) why GIS matters and (b) the role of Geographic Information Systems (GIS) in the modern economy. This course combines three learning methods aimed at helping students to master the use of the software: (a) Class lecture that reinforces the conceptual understanding of theory behind various tasks performed in ArcGIS. (b) Detailed step-by–step instructor lead exercise that exposes students to various workflows and specific ArcGIS Tools, (c) Exercise assignment designed for students to perform specific GIS tasks. Specific topics taught will include an understanding of GIS terminology, raster and vector data structures, data sources and accuracy, methods of data acquisition, conversion and input, requirements for metadata, working with spatial data databases (map features and attribute tables), and spatial analysis (map overlays, buffers, networks).

CIDG 81 GEOGRAPHICAL INFORMATION SYSTEMS FOR EMERGENCY MANAGEMENT AND GOVERNMENT SERVICES II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: CIDG 80)

This course introduces students to the current roles of GIS in support of emergency management activities at both local and federal levels. These roles are considered at each of the four stages of crisis management namely mitigation, preparation, response, and recovery. The course will introduce students to the some of the basic maps requested during emergency including Incident Action Plan maps (IAP), Briefing maps, damage prediction maps, basic census demographics, transportation maps, aerial operation maps, situational plan maps and progression maps. This course introduces students to the various GIS techniques deployed to help government and businesses to operate in the constantly changing environment. The course will consist of two parts: lecture/discussion and a lab. The lecture/discussion period will cover methodology, theory, concepts, and application of GIS in emergency management and governments (local and federal).

CIDG 90 FUNDAMENTALS OF ARCHITECTURE AND STRUCTURAL ENGINEERING
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Recommended preparation: Students will need to have working knowledge of AutoCAD [preferably two semesters]. Grade Option). This course may be taken four times.

This course covers the fundamentals of architecture design and structural engineering with an emphasis on structural calculations. These fundamentals include the requirements for building plans and the most recent Title 24 Energy code and the names and explanations of construction hardware. Structural calculations are performed using the MaxQuake and the MaxBean software programs.

CIDG 101 INTRODUCTION TO DRAFTING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

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.

CIDG 103 BLUEPRINT READING FOR CONSTRUCTION
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

A course designed to develop skills necessary to interpret both residential and commercial construction drawings and blueprints.

CIDG 104 BLUEPRINT READING FOR INDUSTRY
Units: 3.0 - 48-54 hours lecture. CSU

A course designed to develop skills necessary to visualize and correctly interpret drawings and diagrams common to industry.

CIDG 108 ARCHITECTURAL PRESENTATION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

A study of two common architectural presentation techniques: model making and illustration. Students will develop skill in creating architectural models using paper, mat board, wood, plastic, and styrene foam. The illustration portion of this course will include work with perspectives in pencil, watercolor, and airbrush.

CIDG 110 TWO DIMENSIONAL AUTOCAD
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite, Grade Option). This course may be taken four times.
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.

CIDG 120 SOLIDS MODELING AND THREE DIMENSIONAL CADD
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite). This course may be taken four times.

Solid Modeling and Three Dimensional CADD will introduce students to a new auto desk software package entitled INVENTOR. Students will understand the concepts involved in Parametric Modeling. Students will begin by constructing basic shapes and proceed to building intelligent solid models and create multi-view drawings. Assembly drawings, section views, auxiliary views, sheet metal drawings, and details will also be produced. Students will develop their drafting and computer skills through drawings and projects that emphasize teamwork and the design process. Students will also learn various hardware, software and peripheral components related to operating a CADD station.

CIDG 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

CIDG 160 3DS MAX FUNDAMENTALS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option). This course may be taken four times.

Students will learn the basics of 3D modeling, how to create and apply realistic textures, lighting principles and techniques, camera types and their appropriate usage, and fundamental keyframing procedures. Other topics to be covered include storyboards, the traditional principles of animation, current industry trends and issues pertaining to rendering output for different mediums (film, video, Internet, etc.).

CIDG 210 ADVANCED TWO DIMENSIONAL AUTOCAD
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite). This course may be taken four times.

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.

CIDG 230 CIVIL ENGINEERING USING LAND DESKTOP I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option). This course may be taken four times.

A working knowledge of AutoCAD is highly recommended. Introduction to Civil Engineering drafting and design techniques commonly used by government and private industry. Course includes a hands-on approach to using AutoDESK Land Desktop software application. Students will develop tract, parcel and utility maps, zoning overlays and site plans.

CIDG 231 CIVIL ENGINEERING USING LAND DESKTOP II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option). This course may be taken four times.

A working knowledge of AutoDESK Land Desktop is highly recommended. Advanced study of Civil Engineering drafting and design techniques commonly used by government and private industry. Course includes a hands on approach to using AutoDESK Land Desktop software application. Students will develop improvement plans, including grading plans, street plan and profiles and utility plans.

CIDG 250 ARCHITECTURAL COMPUTER AIDED DESIGN I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIDG 110. Grade Option). This course may be taken four times.

This course is designed to develop computer drafting skills necessary to produce residential working and presentation drawings. Design principles will be explored through the use of the Auto CAD/AutoDESK Architectural Desktop program.

CIDG 251 ARCHITECTURAL COMPUTER AIDED DESIGN II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIDG 250). This course may be taken four times.

This course will cover more advanced computer skills necessary to produce commercial and institutional working and presentation drawings. Basic and advanced design principles will be explored and implemented through the use of the Auto CAD program.

CIDG 260 3DS MAX ADVANCED MODELING AND MATERIALS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CIDG 160). This course may be taken two times.

Students will learn the more advanced modeling features of 3ds Max. Complex aspects of building materials and textures will be covered in depth. The course will culminate with students being introduced to the video game environment, having the opportunity create their own game level. The course will prepare students for work in the entertainment, commercial, and computer gaming industries.

CIDG 261 3DS MAX CHARACTER ANIMATION AND ADVANCED KEYFRAMING TECHNIQUES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: CIDG 260. Grade Option). This course may be taken four times.

Students will learn advanced animation techniques including editing keyframes through Track View, animating with controllers and constraints, wiring parameters, and using hierarchies. Character animation will be addressed in depth. Character Studio and Bones will be utilized to build skeletal systems for both characters and creatures. The course will prepare students for work in the entertainment, commercial, and computer gaming industries.

CONSTRUCTION AND MANUFACTURING TECHNOLOGY

The Construction Technology program provides preparation for a wide variety of positions in the construction field as a contractor, supervisor, building inspector or tradesperson. The program offers the opportunity to be self-employed and the pride and satisfaction of creating and building with your own hands.

Certificates of achievement can be earned in Construction Management, Building Construction, Building Inspection, Public Works, HVAC/R, Plumbing and Electrical & Residential Maintenance. The Associate in Science degree is awarded upon completion of 18 semester units in Construction Technology courses and the required general education and Elective courses. Transfer to the CSU system for a bachelor's degree in Industrial Technology is available.

Career Opportunities
Building Inspector
Cabinetmaker
Construction Accountant
Construction Estimator
Construction Insurance Agent
Construction Law Specialist
Construction Salesperson
Construction Supervisor
Contractor
Cement Mason
Civil Engineer
Electrician
Environmental Construction Specialist
Financial Specialist
Framer
Grader
Hazardous Materials Specialist
Heating and Air Conditioning Engineer
Job Foreman
Materials Engineer
Millwright
Metal Building Specialist

Painter
Plumber
Plasterer
Project Supervisor
Public Works Technician
Purchasing Agent
Safety Specialist
Soils Engineer
Surveyor
Tinsmith
Waste Water Specialist
Water Distribution System Specialist
Workmans Comp Specialist

Degrees and Certificates Awarded
Associate in Science, Construction Technology,
Construction Management Certificate
Construction Technology Certificate
Basic Electrical Technician
Basic Heating, Ventilation and Air Conditioning/
Refrigeration Certificate
Basic Residential Maintenance Technician Certificate
Basic Woodworking Certificate
Building Construction Certificate
Building Inspector Certificate
Plumbing Technician
Public Works Certificate
Renewable Energy Certificate

Certificate Programs

CONSTRUCTION TECHNOLOGY CERTIFICATE

Units Required: 19.5

Provides the core knowledge and skills that are common and fundamental to success in a wide variety of construction trades.

All of the following must be completed:

CT 101	Careers in Construction and Manufacturing	1.5
CT 105	Technical Sketching	3.0
CT 106	Materials of Construction	3.0
CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	4.0
CIDG 103	Blueprint Reading for Construction	3.0

BUILDING CONSTRUCTION CERTIFICATE

Units Required: 18.0

Provides the basic knowledge and skills necessary for job opportunities in a wide variety of specific construction trades including masonry, finish carpentry, framing, construction sales, drywall, painting, plumbing, electrical, roofing, heating, ventilation and air conditioning, and surveying.

Students must complete their Construction Technology Certificate plus all of the following:

Group I - All of the following must be completed:

CT 132	Construction Estimation	3.0

Group II - Two of the following must be completed:

CT 120A	Electrical Wiring	4.0
CT 120B	Commercial Wiring	4.0
CT 121	Finish Carpentry	4.0
CT 122A	Heating and Air Conditioning	4.0
CT 122B	Commercial Refrigeration	4.0
CT 123	Surveying	4.0
CT 124	Plumbing	4.0
CT 125	Concrete and Masonry Construction	4.0
CT 127	Framing	4.0

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

CT 138	Cooperative Education	1.0-6.0
CT 140	Construction Internship	4.0
CT 141	Construction Internship Laboratory	2.0-12.0
CT 148	Special Topics	1.0-6.0
CT 60A-D	Construction Laboratory	1.0-4.0

BUILDING INSPECTION CERTIFICATE

Units Required: 21.0

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

Students must complete their Construction Technology Certificate plus all of the following:

All of the following must be completed:

CT 110	Building Codes and Zoning	3.0
CT 111A	Uniform Building Code 1	3.0
CT 111B	Uniform Building Code 2	3.0
CT 112	Uniform Mechanical Code	3.0
CT 113	Uniform Plumbing Code	3.0
CT 114	National Electrical Code	3.0
CT 115	Technical Office Procedures and Field Inspection	3.0

CONSTRUCTION MANAGEMENT CERTIFICATE

Units Required: 18.0-19.0

Provides the skills and background necessary for employment as a contractor, construction business manager, construction supervisor, or foreman when linked with appropriate, trade-specific knowledge.

Students must complete their Construction Technology Certificate plus all of the following:

All of the following must be completed:

CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 109	Construction Financing	3.0
CT 110	Building Codes and Zoning	3.0
CT 132	Construction Estimation	3.0
BADM 101	Elementary Accounting	4.0
OR BADM 103	Financial Accounting	3.0

BASIC ELECTRICAL TECHNICIAN CERTIFICATE

Units Required: 16.0
This certificate provides the necessary knowledge and skill level required for employment in the electrical industry.

All of the following must be completed:

CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 114	National Electrical Code	3.0
CT 116	Construction Safety	2.0
CT 120A	Electrical Wiring	4.0
CT 120B	Commercial Wiring	4.0

BASIC HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION (HVAC/R) SERVICE TECHNICIAN CERTIFICATE

Units Required: 17.0

This certificate provides the basic knowledge and skills necessary for job opportunities in heating, ventilation and air conditioning.

All of the following must be completed:

CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 116	Construction Safety	2.0
CT 122A	Heating and Air Conditioning	4.0
CT 122B	Commercial Refrigeration	4.0
CT 136	HVAC Circuits and Controls	4.0

PLUMBING TECHNICIAN CERTIFICATE

Units Required: 15.0

This certificate provides the necessary knowledge and skill level required for employment in the plumbing industry.

All of the following must be completed:

CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 113	Plumbing Code	3.0
CT 116	Construction Safety	2.0
CT 124	Plumbing	4.0
CTMT 121	Plumbing Repair	3.0

PUBLIC WORKS CERTIFICATE

Units Required: 18.0
This certificate provides the necessary skill level for employment on public works projects. Public works includes construction of streets and highways, water distribution systems, and waste water systems.
Students must complete their Construction Technology Certificate plus the following:

Group I - All of the following must be completed:

CTPB 111	Introduction to Public Works	3.0
CTPB 112	Plan Reading for Public Works	3.0
CTPB 113	Public Works Inspection	3.0
CTPB 114	Public Works Administration	3.0

Group II - Two of the following must be completed:

CT 123	Surveying	4.0
CTPB 115	Street and Highway Construction	3.0
CTPB 116A	Water Distribution Systems	3.0
CTPB 117	Portland Cement Concrete	3.0
CTPB 118	Solid Waste Management	3.0
CTPB 119	Wastewater Management	3.0

BASIC RESIDENTIAL MAINTENANCE TECHNICIAN CERTIFICATE

Units Required: 15.0

This certificate provides the necessary knowledge and skill level required for employment in the residential maintenance and repair industry.

All of the following must be completed:

CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 116	Construction Safety	2.0
CTMT 120	Residential Maintenance and Repair	4.0
CTMT 121	Plumbing Repair	3.0
CTMT 122	Electrical Repair	3.0

BASIC WOODWORKING CERTIFICATE

Units Required: 17.0

This certificate demonstrates a basic understanding of wood, joinery and woodworking skills and the ability to safely and appropriately use common hand tools, power tools and equipment to perform common woodworking tasks. This certificate can lead to employment in a wide variety of woodworking trades.

All of the following must be completed:

CTMF 120A	Woodworking Tools and Equipment	2.0

CTMF 121A	Woodworking	3.0
CTMF 121B	Advanced Woodworking	3.0
CTMF 122	Advanced Wood Topics	3.0
CTMF 129A	Woodturning	3.0
CTMF 129B	Advanced Woodturning	3.0

RENEWABLE ENERGY CERTIFICATE

Units Required: 17.0

This certificate demonstrates an understanding of renewable generation and the effects of fossil fuel use on our environment, economy and society. This certificate can lead to employment in the renewable energy field.

Group I - All of the following must be completed:

CT 105	Technical Sketching	3.0
CT 107	Technical Math	3.0
OR CT 108	Advanced Technical Math	3.0
CT 142	Renewable Energy	3.0
CT 143	Renewable Energy Laboratory	5.0
CTMT 122	Electrical Repair	3.0

Associate Degree

To earn an Associate in Science degree with a major in Construction Technology a minimum of 22.5 must be completed from the following list of departmental classes and the student must meet all Victor Valley College graduation requirements.

Group I - All of the following must be completed:

CT 101	Careers in Construction	1.5
CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 106	Materials of Construction	3.0
CT 110	Building Codes and Zoning	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	4.0

Group II - One of the following must be completed:

CT 105	Technical Sketching	3.0
CT 107	Technical Math	3.0
CT 108	Advanced Technical Math	3.0
CIDG 103	Blueprint Reading for Construction	3.0

Transfer

Some Construction Technology courses transfer to CSU as electives or may fulfill subject credit requirements. Some students in this program choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

CSU Stanislaus, located in the Central Valley not far from the San Francisco Bay area, offers a B.S. degree in Applied Studies (telephone: 209 667-3597), to which up to 30 units of VVC's Construction and Manufacturing Technology courses can be applied. Prerequisites: BADM 101, CIS 101, ECON 102, and MATH 120, plus complete the remaining CSU General Education-Breadth requirements (you can use ECON 102 and MATH 120 for both). Visit www.assist.org for the most up-to-date information.

CONSTRUCTION AND MANUFACTURING TECHNOLOGY COURSES

CT 2 ASSISTANT PROPERTY MANAGEMENT
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

This class covers basic aspects of property management. Topics covered include code of ethics, inspections, filings, services posting of notices, collections, small claims court filings, evictions, securities and deposits, basic bookkeeping, and landlord tenant relations and rights. 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

CT 60A/B/C/D CONSTRUCTION LABORATORY
Units: 1.0-4.0 - 48-54 hours laboratory per unit, per term. (No prerequisite)

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.

CT 101 CAREERS IN CONSTRUCTION AND MANUFACTURING
Units: 1.5 - 24-27 hours lecture. CSU (No prerequisite.)

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.

CT 103 CONSTRUCTION MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 104 CONSTRUCTION LAW
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Principles of contracting, real estate and construction law. Course includes legal aspects of building codes, contractors' licenses, workmen's compensation, social security, state safety regulations and lien laws as they apply to the construction trade.

CT 105 TECHNICAL SKETCHING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade option)

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.

CT 106 MATERIALS OF CONSTRUCTION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

A study of common materials used in residential and commercial construction. Course includes use and limitations of soil, paving materials, concrete, lumber, wall materials, roofing, insulation, siding, sheet material, electrical and plumbing materials and fixtures. This course will also explore the use of steel, aluminum and plastics in modern construction.

CT 107 TECHNICAL MATHEMATICS
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

A review of basic arithmetic, fractions, decimals and percentages. Introduction to basic algebra and trigonometry as they apply to the manufacturing and construction trades.

CT 108 ADVANCED TECHNICAL MATH
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course will include the practical applications of algebra, geometry and trigonometry. Class emphasis will be on the solution of technical problems commonly found in the fields of engineering, drafting, manufacturing and construction.

CT 109 CONSTRUCTION FINANCING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 110 BUILDING CODES AND ZONING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 111A UNIFORM BUILDING CODE I
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

The first of a two part, in-depth study of the contents and applications of the Uniform Building Code and California amendments; emphasis on residential construction. This course includes building classifications by occupancy and type, engineering regulations and design requirements applicable to plan checking and structural building inspection.

CT 111B UNIFORM BUILDING CODE II
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

An in-depth study of the Uniform Building Code and California amendments; emphasis on commercial applications. Course includes energy conservation standards, specialized commercial structures, public safety and standards for handicapped accessibility.

CT 112 UNIFORM MECHANICAL CODE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 113 UNIFORM PLUMBING CODE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 114 NATIONAL ELECTRICAL CODE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CT 115 TECHNICAL OFFICE PROCEDURES AND FIELD INSPECTION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

Office organization, procedures and necessary paper-work 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.

CT 116 CONSTRUCTION SAFETY
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite)

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.

CT 119 LOAD CALCULATIONS AND CIRCUIT DESIGN
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

This course is designed to develop the skills necessary to visualize and correctly interpret drawings, diagrams, blueprints, and schematics common to the electrical industry. Course includes branch and feeder circuit design and load calculations as they apply to residential, multi-family, commercial and industrial applications.

CT 120A ELECTRICAL WIRING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite)

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.

CT 120B COMMERICAL WIRING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU (Prerequisite: CT 120A)

Learn the techniques necessary for commercial wiring. Size conductors for motor, intermittent and continuous loads. Wire for single and three phase services. Course includes wiring techniques common to commercial applications, running circuits with flex, electrical metallic tubing, rigid and liquid tight conduits and use of common conductors, cables, boxes and raceways. Also included are transformers and motor load calculations, starters and over current protection devices.

CT 121 FINISH CARPENTRY
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite)

Course covers use of hand and machine woodworking tools and techniques common to finish carpentry and cabinet making. Students will develop skill in safe and efficient operation of common tools, layout, cutting, assembly and finish of woodworking projects.

CT 122A HEATING AND AIR CONDITIONING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite)

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.

CT 122B COMMERCIAL REFRIGERATION
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU (Prerequisite: CT 122A)

Explore the more complex commercial and industrial uses of refrigeration, heating and air conditioning. Course covers installation and repair of the most common commercial refrigeration systems found in the food industry and industrial and manufacturing environments. Also included are computer controlled and central plant environmental systems, high and low pressure chillers, cooling towers and air handlers.

CT 122C HEAT PUMP FUNDAMENTALS AND CONTROLS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

This course explores electrical and mechanical circuitry fundamentals, along with theory, operation and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods of supplemental heat, balance point, air flow, and heat pump thermostats.

CT 123 SURVEYING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite.)

A course designed to explore the principles and applications of surveying. Students will develop skill in the operation of surveying equipment used for measuring, leveling and locating of points. Course includes surveying techniques common to building and highway construction, general land surveying, hydrographic surveys and photogrammetric mapping.

CT 124 PLUMBING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite)

This course provides instruction for layout and installation of residential and light commercial plumbing systems and fixtures. Rough and finish stages of plumbing will be introduced and students will become familiar with reading plans and calculating and constructing the plumbing system.

CT 125 CONCRETE AND MASONRY CONSTRUCTION
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. No prerequisite)

Course covers use of hand and machine tools and techniques common to residential and light commercial concrete and masonry construction. Plan reading, layout, forming, pouring of concrete, tilt-up and various finishing techniques will be introduced. Course also includes construction with brick, stone, concrete block, and other masonry shapes.

CT 126 EXPLORING BRICK AND BLOCK
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. CSU (No prerequisite)

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.

CT 127 FRAMING
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite)

Course covers use of hand and machine tools and techniques common to rough carpentry and residential and light commercial framing. Students will develop skill in safe and efficient operation of common tools, layout techniques, cutting and assembly of wall, ceiling and roof framing, and installing sheathing and insulation.

CT 129 INDEPENDENT STUDY
See Independent Study listing (1-4 units). CSU

CT 130 RESIDENTIAL REMODELING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

CT 131 MICROCOMPUTERS IN CONSTRUCTION
Units: 4.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (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, spread sheets, estimation programs and introductory computer-aided drafting.

CT 132 CONSTRUCTION ESTIMATION
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite.)

Methods of estimation including material and quantity take-offs and analysis. Course also includes estimation of material, labor and overhead costs, subcontractors' bids and common bidding practice for all aspects of residential and light commercial construction.

CT 133 PRECISION ESTIMATION
Units: 3.0 - 32-36 hours lecture and 32-36 hours by arrangement. CSU (No prerequisite.)

Learn how to speed up your estimating process and increase your accuracy using today's leading construction estimating software. Timberline Precision Estimation Plus allows take-off using quick, single and assembly methods. Course includes development and maintenance of your database. Create your own crews, add-ons, formulas and assemblies to meet your particular estimating needs.

CT 136 HVAC CIRCUITS AND CONTROLS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

This course explores electrical fundamentals common to the heating, ventilation, air conditioning and refrigeration fields. Course includes electrical theory, control circuitry and electronics, system supply circuitry and alternating and direct current troubleshooting.

CT 137 SHEET METAL FABRICATION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

This course will introduce the student to the fundamental elements, methods and principals of sheet metal design, fabrication and installation. Course includes air handling systems, gutters, flashings, coping, tanks and exhaust systems. Students will gain valuable hands-on skills in the proper use of metal working hand

and machine tools through the completion of multiple projects.

CT 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

CT 140 CONSTRUCTION INTERNSHIP
Units: 4.0 - 64-72 hours lecture. CSU. (No prerequisite. Grade Option)

Gain valuable hands-on construction skills by participating in the creation and operation of a small construction business. Students will research the market, design the project, estimate the costs, develop a business plan, secure a construction loan, prepare a schedule and analyze the projects progress and perform customer service and sales.

CT 141 CONSTRUCTION INTERNSHIP LABORATORY
Units: 2.0-12.0 - 6 hours weekly by arrangement per unit. CSU. (No prerequisite. Grade Option)

This course is the laboratory component for CT 140 Construction Internship. Students will research, develop, construct and market a construction project using computers and common construction tools and equipment.

CT 142 RENEWABLE ENERGY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

This course explores methods of generation and use of renewable energy. Topics include renewable fuel based generators, fuel cells, wave and tidal generation, geothermal, wind turbines, photovoltaic, barometric pressure, and hydroelectric generation. Course also covers active and passive solar heating and cooling, alternate fuel vehicles and electric transportation.

CT 143A/B/C/D RENEWABLE ENERGY LABORATOR
Units: 2.0-5.0 - 16-18 hours lecture and 48-54 hours laboratory per unit, per term. CSU. (No prerequisite. Co-requisite: CT 142, Renewable Energy. Grade Option)

This laboratory course explores methods of generation and use of renewable energy through actual projects. Additional projects include the creation of an active and passive solar heating and cooling system and exploration of alternate fueled and electric vehicles.

CT 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

CONSTRUCTION TECHNOLOGY MANUFACTURING COURSES

CTMF 120A WOODWORKING TOOLS AND EQUIPMENT
Units: 2.0 - 32-36 hours lecture. CSU (No prerequisite)

This course is designed to give the woodworking student an in-depth knowledge of common woodworking tools and equipment. Students will explore the safety, use and maintenance of saws, lathes, routers, planers, jointers, sanders and common power and hand tools used for basic woodworking projects.

CTMF 120B ADVANCED WOODWORKING TOOLS AND EQUIPMENT
Units: 2.0 -32-36 hours lecture. CSU (Prerequisite: CTMF 120A.)

This course is designed to give the woodworking student an in-depth knowledge of the more advanced woodworking tools, equipment and operations. Students will explore the safety, setup, use and maintenance of saws, lathes, routers, planers, jointers, sanders and common power and hand tools as used in advanced woodworking projects. Course also includes extensive coverage of tool sharpening.

CTMF 121A WOODWORKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Co-requisite CTMF 120A. Grade option)

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.

CTMF 121B ADVANCED WOODWORKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CTMF 121A)

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.

CTMF 122A/B/C/D ADVANCED WOOD TOPICS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CTMF 121A Basic Woodworking. Grade option.)

Come develop your skills and learn the methods and procedures necessary for completing an advanced woodworking project. One specific advanced woodworking project is selected as the focus for each semester. Check with the Construction Technology Department for the current project. Course may also include specialized techniques of turning, marquetry, parquetry, carving and intarsia.

CTMF 127 PRODUCTION WOODWORKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CTMF 126A)

This course covers techniques common to production woodworking and includes design and construction of custom jigs, fixtures and templates for drill presses, routers, saws and lathes. Students will gain experience with computer numerical controlled routers, surfacing sanders, airbag sanders and production fastening techniques and wood finishes while creating several commercial woodworking projects.

CTMF 129A WOODTURNING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Co-requisite CTMF 120A.)

This introductory course will provide the woodworking student with information and skills necessary to successfully design, turn and finish typical woodturning projects. Course includes lathe, spindle, faceplate and drive chuck turning. Students will complete a variety of projects that can include pens and pencils, games and toy pieces, decorations, lamps, spindles, bowls and boxes.

CTMF 129B ADVANCED WOODTURNING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (Prerequisite: CTMF 129A, Woodturning. Grade option.)

This advanced woodturning course includes green, seasoned and laminated wood and acrylic projects. Students will explore turning of large bowls and platters, maintaining natural edges, turning burls, proper box and lid construction, off center turning, chatter finishes and construction of turning fixtures, centers and drives.

CTMF 130A MECHANICAL DESKTOP
Units: 3.0 - 32-36 hours lecture and 32-36 hours by arrangement. CSU (Prerequisite: CIDG 110.)

Develop your skill in creating accurate three-dimensional parametric models using Mechanical Desktop. Explore the exciting features of this program which includes parametric modeling, surfacing, model analysis, interference checking and assemblies. Learn how to export surface and design information to computer controlled mills and routers. This is an introductory class in Mechanical Desktop.

CTMF 130B MECHANICAL DESKTOP ADVANCED
Units: 3.0 - 32-36 hours lecture and 32-36 hours by arrangement. CSU (Prerequisite: CTMF 130A)

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.

CTMF 131A MASTERCAM
Units: 3.0 - 32-36 hours lecture and 32-36 hours by arrangement. CSU (No prerequisite.)

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.

CTMF 131B MASTERCAM ADVANCED
Units: 3.0 - 48-54 hours lecture and 32-36 hours by arrangement. CSU (Prerequisite: CTMF 131A.)

This advanced course includes an in-depth study of the more complex features of Mastercam. Students will create geometry and toolpaths for complex three-dimensional and surface models for mills, routers, lathes and engraving machines. Programming of multi-axis and mill-turn machines will be explored.

CTMF 140 MANUFACTURING INTERNSHIP
Units: 4.0 - 64-72 hours lecture. CSU (No prerequisite. Grade Option.)

This course will provide the construction, drafting and manufacturing technology student with hands-on job skills and experience common to the manufacturing industry.

CTMF 141 MANUFACTURING INTERNSHIP LABORATORY
Units: 2.0-12.0 - 6 weekly hours by arrangement per unit. CSU (No prerequisite. Grade Option.)

This course is the laboratory component for CTMF 140 Manufacturing Internship. Students will research, design, manufacture and market a project using computers and common manufacturing equipment. CTMF 140 must be taken concurrently.

CONSTRUCTION TECHNOLOGY MAINTENANCE COURSES

CTMT 120 RESIDENTIAL MAINTENANCE AND REPAIR
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

This class covers all major aspects of preventative maintenance and repair for residential and light commercial buildings. Topics covered include but are not limited to repairing roofing, plumbing, electrical framing, insulation, drywall, painting, concrete, flooring, safety, tools, heating and cooling, etc. as they apply to the maintenance and repair industry.

CTMT 121 PLUMBING REPAIR
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

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.

CTMT 122 ELECTRICAL REPAIR
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

This class covers most aspects of residential and light commercial electrical repair. Topics covered included but are not limited to electrical tools, electrical theory, wiring systems electrical materials, electrical services, troubleshooting electric circuits, low voltage circuits, appliances and motors, and mathematics for electricians.

CTMT 123 CUSTODIAL MAINTENANCE
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

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.

CTMT 129 SMALL ENGINES AND LIGHT VEHICLES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU (No prerequisite. Grade Option)

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.

CONSTRUCTION TECHNOLOGY PUBLIC WORKS COURSES

CTPW 111 INTRODUCTION TO PUBLIC WORKS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CTPW 112 PLAN READING FOR PUBLIC WORKS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CTPW 113 PUBLIC WORKS INSPECTION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

General public works inspection techniques. Includes Portland Cement and asphalt concretes, soils, base and subgrade, safety, contracts, and specifications. Responsibilities of the contractor, engineer, agency, and inspector.

CTPW 114 PUBLIC WORKS ADMINISTRATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

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.

CTPW 115 STREET AND HIGHWAY CONSTRUCTION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CTPW 116A WATER DISTRIBUTION SYSTEMS I
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CTPW 117 PORTLAND CEMENT CONCRETE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Portland Cement concrete design and uses. Covers transporting, placing, curing, and testing Portland Cement concrete. Applications and construction methods employed.

CTPW 118 SOLID WASTE MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

CTPW 119 WASTEWATER MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Comprehensive examination of wastewater management, impact of waste contributions from home and industry, effects of wastewater treatment, water reclamation and by-product disposal.

COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Education is a key element of Victor Valley College's comprehensive approach to career development. Co-op is a 16-, 12-, or 8-week course that enables the student to receive college credit for on-the-job training that will make him/her a more efficient and valuable employee while providing a practical education that supplements and enhances classroom theory. It relates education to real work environments through learning while earning. It also provides the opportunity for work improvement by improving skills. Victor Valley College recognizes job experience as a valuable learning resource. It has the uniqueness of turning community business, industry, and public agencies into an expanded educational training laboratory. Co-op also allows credit for volunteer training. Credit is awarded on the basis of objectives completed and the number of hours the student trains. Students may utilize their present worksites. More details are available in the Co-op Office, (760) 245-4271, ext. 2281. The office, located in the Academic Commons, is open Monday-Friday, 8:30 a.m.-12:30 p.m., 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 occupational skills training for employment? We can offer you:

- Practical experience
- An opportunity to apply classroom learning on the job
- College credit
- Career guidance in a realistic setting
- A chance to learn what you 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. You will need a minimum of 75 hours of paid work for each unit of credit, or 60 hours of volunteer work for each unit of credit.

COOPERATIVE WORK EXPERIENCE EDUCATION

Paid

75 Hours per unit/per semester		Total Semester Hours
05 hrs/wk	1.0 unit	75
10 hrs/wk	2.0 units	150
15 hrs/wk	3.0 units	225
20 hrs/wk	4.0 units	300
25 hrs/wk	5.0 units	375
30 hrs/wk	6.0 units	450
35 hrs/wk	7.0 units	525
40 hrs/wk	8.0 units	600

Volunteer

60 Hours per unit/per semester		Total Semester Hours
04 hrs/wk	1.0 unit	60
08 hrs/wk	2.0 units	120
12 hrs/wk	3.0 units	180
16 hrs/wk	4.0 units	240
20 hrs/wk	5.0 units	300
24 hrs/wk	6.0 units	360
27 hrs/wk	7.0 units	420
32 hrs/wk	8.0 units	480

Eligibility
Students must utilize their present work site, as we do not place students at work sites. 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.

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 work site.
- Pursue a planned program of Cooperative Education that includes new or expanded responsibilities or learning opportunities beyond those of previous employment and training.

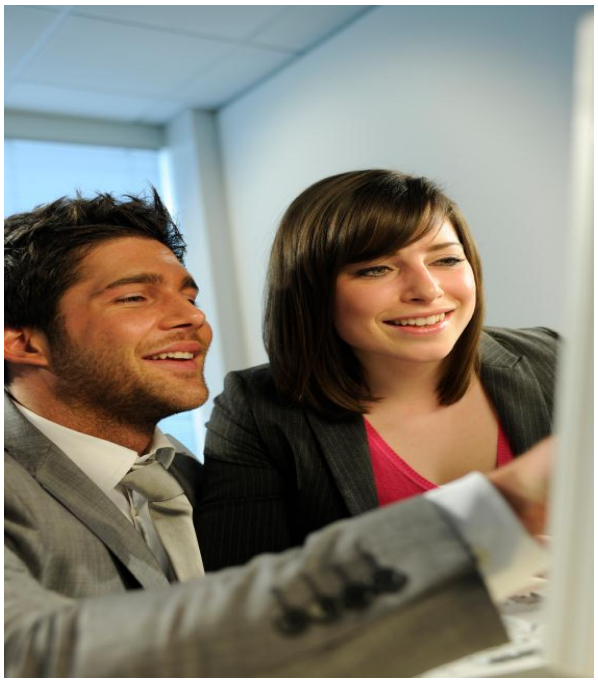
Credit
Students may earn between 1 and 8 units of Co-op credit per semester, depending on the number of hours completed. A maximum of 16 units of Co-op credit may be used towards electives for the AA/AS degree; these units also transfer to CSU.

Cooperative Education Work Experience is offered in the following areas:

Administration of Justice
Agriculture and Natural Resources
Allied Health
Art
Automotive
Biology
Business Administration
Business Education Technologies
Business Escrow
Business Real Estate
Chemistry
Child Development
Computer Information Systems
Computer Integrated Design & Graphics (Drafting)
Construction & Manufacturing Technology
Education
Electronics and Computer Technology
English
Fire Technology
General Work Experience
Journalism
Mathematics
Music
Nursing
Photography
Physical Science
Physics
Political Science
Psychology
Respiratory Therapy
Restaurant Management
Sociology
Theater Arts
Welding

For further information and individual guidance, contact the Cooperative Education Office at 245-4271, ext. 2281, or visit www.vvc.edu/offices/coopedu.

Faculty
Full Time
Maggi Dunsmore



DEVELOPMENTAL STUDIES

Developmental Studies courses offer language analysis curriculum specifically designed for students with language based disabilities. The curriculum is a multisensory, sequential, and cognitive approach which includes both perceptual and neurological deficit therapy.

DEVELOPMENTAL STUDIES COURSES

DVST 1 LANGUAGE ANALYSIS DEVELOPMENT 1
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course is designed for students who would like to learn how to read and spell phonetically. The sounds and rules governing the sounds are introduced to the students. The students are then given opportunity to encode and decode words using this phonetic instruction. This course will not apply to the Associate Degree.

DVST 2 LANGUAGE ANALYSIS DEVELOPMENT 2
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No Pass)

Language Analysis 2 uses a multisensory sequential approach to teaching the encoding and decoding of multisyllabic words according to the phonetic structure of the words. Students will also learn how to apply the rules governing the phonetic structure in order to enhance both reading and spelling. This course will not apply to the Associate Degree.

DVST 3 LANGUAGE ANALYSIS DEVELOPMENT 3
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No Pass)

Language Analysis 3 is a multisensory and structured approach to understanding the skills and techniques that can enhance comprehension of college level text book reading assignments. Specifically, the key words and organizational patterns of the text will be identified and methods for grasping the main idea of the text will be presented. This course will not apply to the Associate Degree.

DVST 4 MATHEMATICAL REASONING
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No Pass)

Math Reasoning addresses the perceptual and language deficits that can interfere with understanding mathematical concepts and operations. Students will be given hands-on experience to increase visual perception and to comprehend the language used in mathematics. This course will not apply to the Associate Degree.

DIGITAL ANIMATION

See Computer Integrated Design and Graphics
See Media Arts

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, un-employment, 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.

Career Opportunities
Budget Analyst
Business Analyst
Business Forecaster
Commodity Economist
Commodity Price Forecaster
Economic Analyst
Economic Forecaster
Economist
Industrial Relations Specialist
Investment Analyst

Faculty
Peter Allan
Henry Young

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program No certificates awarded.

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop

by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Economics major
- **University of California, Riverside**
  Economics major

ECONOMICS COURSES

ECON 101 PRINCIPLES OF ECONOMICS: MACRO
Units: 3.0 - 48-54 hours lecture. (Prerequisite: Math 90 or higher with a grade "C" or better).

Introduction to economic theory and analysis with emphasis on fiscal and monetary policy, capitalism, national income, employment, money, economic stability, economic growth and achievements emphasizing the macro-economic approach. The purpose is to provide students with an introduction into major issues facing the world economies, exposing students to the methods that economists use to study and solve those issues and economic policy problems of the 21st century.

ECON 102 PRINCIPLES OF ECONOMICS: MICRO
Units: 3.0 - 48-54 hours lecture. CSU, UC.
(Prerequisite: Math 90 or higher with a grade "C" or better).)

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.

ECON 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

ECON 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

EDUCATION

The Department of Education and Educational Technology at Victor Valley College offers certificate programs for transfer into teaching credential programs offered at accredited four-year colleges. These preparatory courses may transfer to Education and Educational Technology majors when and where articulation agreements exist. Education is the career field for those individuals who desire to teach in elementary and secondary schools, as well as in colleges and professional education. This field of study prepares students to participate as teachers and learning facilitators. Graduates in this field—bachelor's degree and postgraduate study required —qualify for a variety of positions including teaching at the elementary, secondary, and college levels. Education remains on the national list of growing occupations.

To obtain a California teaching credential, students must follow a five-year program by first pursuing a four-year bachelor's degree and then completing a fifth year teaching credential program in which they complete mostly education courses, including student teaching.

Credentials
California Commission on Teacher Credentialing is responsible for setting standards for licensure of teachers and for accreditation of institutions that prepare teachers. The Commission is working toward meeting the standards set by the Senate Bill 2042. Some institutions may still be in the process of making changes to comply with the Commission's new standards. If you are thinking of a career in teaching, you should see a counselor for the latest information.

Also, spend some time at
http://www.ctc.ca.gov/credentials/teach.html and
http://www.teachcalifornia.org/ for important, up-to-the-minute information about the teaching profession in California.

A minimum 2.6-3.0 GPA is required for acceptance into most credential programs. Minimum GPA accepted varies according to the major and the university the student chooses.

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.

CSET
All Multiple Subject (K-6) candidates are required to pass the California Subject Examinations for Teachers (CSET); there are no longer waiver programs for this requirement.

Career Opportunities
Administrative Services
Elementary Teacher
ESL Teacher
High School Teacher
College Instructor
Education Consultant
Training Facilitator
Instructional Designer
Distance Learning Specialist
MGM Teacher
Physically Handicapped Teacher
Pupil Personnel Services
Reading Teacher
Special Education Teacher
Vocational Teacher

Faculty
Mike Smith

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Degree will vary with major.
Educational Technology Certificate
Collegial Education Certificate Level I, II

Certificate Programs

EDUCATIONAL TECHNOLOGY CERTIFICATE

Units Required: 17.0

The Educational Technology Certificate Program significantly enhances transfer readiness for students who intend to pursue a career in public education (K-12 teacher, community college teacher, school administration, academic counseling, special education, etc.) or a career in professional education (instructional designer, business/corporate trainer, educational software engineer, educational consultant.) Additionally, the program (1) certifies teachers of all types in the use and integration of computer technology in their practice, and (2) certifies students for work as paraprofessionals or para-educators in technology-enhanced school settings, such as computer labs and networked classrooms. The Educational Technology Certificate Program exceeds the rigorous standards set by version two of the California Technology Assessment Profile.

All of the following must be completed:

EDUC 101	Introduction to Teaching	3.0
ETEC 106	Introduction to Computer Tech for Educators	4.0
ETEC 107	Introduction to the Internet for Educators	2.0
ETEC 51	Introduction to Educational Technology	3.0
ETEC 70	Leadership in Educational Technology	3.0
ETEC 90	Educational Technology Internship	2.0

COLLEGIAL EDUCATION CERTIFICATE

This certificate will serve the needs of parents who home school their children or are actively involved in the education of their children at school. It is intended to assist parents developing their understanding of how children think and learn, and how different educational styles and approaches influences learning. The certificate will initially be offered to parents of students at the Lewis Center in Apple Valley and has been developed in collaboration with the administration of the Lewis Center.

COLLEGIAL EDUCATION - LEVEL I

Units Required: 6.0

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

EDUC 101	Introduction to Teaching	3.0
CHDV 100	Child Growth and Development	3.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II CURRICULUM SPECIALIZATION

Units Required : 6.0

Complete the Collegial Education Certificate - Level I first.

Choose 6 units from any of the following:

CHDV 134	Language Experiences for Young Children	3.0
CHDV 144	Math and Science for Young Children	2.0
ENGL 235	Children's Literature	3.0
MATH 70	Building Mathematical Experiences for Children K-8	3.0
MATH 71	Guided Discoveries Practicum	2.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II TEACHING AND LEARNING SPECIALIZATION

Units Required: 6.0

Complete the Collegial Education Certificate - Level I first.

Choose 6 units from any of the following:

CHDV 132	Montessori Methods	3.0
GUID 107	Learning Strategies and Study Skills	3.0
PSYC 105/ GUID 105	Personal and Career Success	3.0

COLLEGIAL EDUCATION - LEVEL II: TECHNOLOGY SPECIALIZATION

Unit Required: 6.0

Complete the Collegial Education Certificate - Level I first.

Choose 6 units from any of the following:

ETEC 106	Introduction to Computing for Educators	4.0
ETEC 107	Introduction to the Internet for Educators	2.0
ETEC 51	Introduction to Educational Technology	3.0
MATH 70	Building Mathematical Experiences for Children K-8	3.0
BET 131A	Presentation Software: PowerPoint I	1.0
BET 131B	Presentation Software: PowerPoint II	1.0
BET 131C	Presentation Software: PowerPoint III	1.0
BET 135	Desktop Publishing: PageMaker	2.0

Associate Degree

No associate degree offered with a major in Education. Courses in the Liberal Studies major may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree that prepares students for teaching, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

MULTIPLE-SUBJECT (K-6) TEACHING CREDENTIAL

- **California State University, San Bernardino**
  CSUSB offers multiple-subject programs in the Liberal Studies and Human Development/Child Development (Track II) majors

- **University of California, Riverside**
  UCR offers multiple-subject programs in the following majors: English, Ethnic Studies, History, Human Development, Liberal Studies, Political Science, Sociology

Local Bachelors Programs offering preparation for Multiple Subjects credentials

For information on the following programs located in the High Desert, please visit: www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets"

- **Azusa Pacific University, High Desert Regional Center**
  Human Development major

- **Brandman University, Victor Valley Campus**
  Social Sciences major

- **University of La Verne, High Desert Campus**
  Liberal Studies major

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.

- **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

- **University of California, Riverside**
  Biological Sciences, English, History, Mathematics, Political Science, Physical Sciences (Physics), Social Sciences

VOCATIONAL SUBJECTS

The following California State University (CSU) campuses offer Bachelor's Degrees in Vocational Ed./Occupational Studies. Contact them for admissions requirements:

Long Beach	San Diego
Los Angeles	San Francisco
San Bernardino	San Luis Obispo

EDUCATION COURSES

EDUC 101 INTRODUCTION TO TEACHING

Units: 3.0 - 48-54 hours lecture. CSU. UC. (No prerequisite)

An introduction to teaching as a career and to education as a social institution. The crucial issues facing education in contemporary American society are considered in the framework of the democratic way of life. Special attention is given to issues in educational technology, as well as to the goals, curriculum, and methods of elementary education. The opportunities, challenges, and requirements of teaching as a profession are presented. This course is not designed to be a course in professional education.

EDUC 138 COOPERATIVE EDUCATION
See Cooperative Education (1 - 8 units). CSU

EDUCATIONAL TECHNOLOGY COURSES

ETEC 51 INTRODUCTION TO EDUCATIONAL TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course examines technology from three integrated perspectives: technology as a tool, a medium, and a setting for learning. Students will extensively use Internet tools as they survey a variety of strategies for integrating technology into the classroom. The course will also instruct students on the basic methods and strategies for creating Web-based learning activities. Students will have the opportunity to create projects relevant to their educational setting.

ETEC 70 LEADERSHIP IN EDUCATIONAL TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course defines and details constructivist leadership, framing that leadership in terms of educational technology. Students will apply these concepts to their own settings through introductory understandings of knowledge management and virtual learning. Students will have the opportunity to formulate technology rollout and training plans specific to their educational organizations or fields.

ETEC 90 EDUCATIONAL TECHNOLOGY INTERNSHIP
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite, Pass/No Pass)

This course provides students with valuable experience in educational settings by partnering them with teachers or other professional educators to assess needs, collaborate on possible solutions, support implementations, and evaluate outcomes. Students will also benefit from working within a community of practice during their internships.

ETEC 106 INTRODUCTION TO COMPUTER TECHNOLOGY FOR EDUCATORS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

A survey course which provides an overview of computer technology for multi-disciplinary majors, but with emphasis on its role in educational settings. The course provides instruction in a variety of topics supported by hands-on laboratory work with operating systems, word processing, spreadsheets, databases, desktop publishing, programming, networks, and the Internet. Application and evaluation of computer technology in learning environments serves as the overall framework. See cross listing for CIS 106.

ETEC 107 INTRODUCTION TO THE INTERNET FOR EDUCATORS
Units: 2.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

A course for education students or current teachers to acquire the skills needed to effectively utilize the Internet in the classroom. Emphasis will be placed on computer-mediated communication with the World Wide Web. Students will become well versed in the use of Web browsers, FTP, newsgroups/asynchronous discussion, e-mail, and chat synchronous discussion. See cross listing for CIS 107.

ELECTRONICS AND COMPUTER TECHNOLOGY

The Electronics and Computer Technology Department offers several concentrations in electronics and computer technology that are designed to prepare students for a variety of high-tech job/career opportunities in the fields of engineering and technology; electronics technology; computer technology; telecommunication technology; and related technologies.

The Electronics and Computer Technology Department offers an associate degree program in engineering technology with an emphasis in electronics, computers, and telecommunications. Technology certificates offered in areas of specialization include: electronics technology, computer technology, telecommunication technology, networking technology, electronic communication technology, and industrial electronics technology. Certificates/certifications offered in specific areas of electronics, computers, and related technology include: Certified Electronics Technician (Associate CET), A+ Certified Computer Service Technician, N+ Certified Networking Technician, CISCO Certified Network Associate (CCNA), CISCO Certified Network Professional (CCNP), Microsoft Certified Systems Engineer (MCSE), Certified Fiber Optics Installer, (FOIC), Electronics Communications (WCM, FCC license) and Digital and Microprocessor Electronics.

Career Opportunities

Electronics Engineering Technologist
Computer Engineering Technologist
Network Engineering Technologist
Telecommunications Engineering Technologist
Certified Electronics Technician, CET
A+ Certified Computer Technician
N+ Certified Network Technician
Certified Telecommunication Technician
CISCO Certified Network Associate (CCNA)
CISCO Certified Network Professional (CCNP)
Microsoft Certified Professional (MCP)
Microsoft Certified Systems Engineer (MCSE)
Networking Cable Installer
Fiber Optics Installer
Microwave/Radar Technician
Laser/Optical Technician
Industrial Electronics Technician
Consumer Electronics Technician
Biomedical Instrument Technician
Audio/Visual Systems Technician
Broadcast Radio and Television
Research and Development
Sales Representative, electronics and computer equipment
Quality Control Technician

Faculty

Full Time

Khalid Rubayi
Tom Faro, Emeritus

Degrees and Certificates Awarded

Associate in Science, Electronics and Computer Technology
Associate in Science, Electronics Engineering Technology
Associate Degree Electronics Engineering Technology Certificate
A+ Certification Examination Preparation Certificate
CISCO Networking Academy I, II, III, IV, V, VI, VII Certificate
Computer Technology Certificate
Communication Electronics Certificate
Digital Electronics Certificate
Electronics Technology Certificate
Fiber Optic Cabling Technician Certificate
N+ Certification Examination Preparation Certificate
Wireless Communication Technology Certificate
Wireless MSCSE Examination Preparation Certificate Level I, II

Certificate Programs

ASSOCIATE DEGREE ELECTRONICS ENGINEERING TECHNOLOGY CERTIFICATE

Professional Preparation

Units Required: 64.5-68.5

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 51	C++ Programming for Electronics and Computer Technology	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

One of the following two groups must be completed:

Electronics Emphasis

ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0

Computer Emphasis

ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 77A	Networking Technology and Practices I	4.0

Individualized instruction courses require 108 hours of supervised laboratory activities.

All of the following must be completed:

ELCT 57	Technical Mathematics for Electronics I	3.0

ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 59	Technical Calculus for Electronics I	3.0
ELCT 60	Technical Calculus for Electronics II	3.0

Students planning to transfer to an Electrical engineering program should take the following mathematics courses (instead of ELCT 57, 58, 59, and 60)

MATH 105	College Algebra	4.0
MATH 104	Trigonometry	3.0
MATH 226	Analytic Geometry and Calculus	5.0
MATH 227	Analytic Geometry and Calculus	5.0

Complete all other General Education, proficiency and graduation requirements for the A.S. degree.

COMPUTER TECHNOLOGY CERTIFICATE
Career Preparation

Units Required: 44.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units
Career specialty options include individualized instruction courses that are designed to provide the student with skills and/or knowledge in a specific area of digital/microprocessor technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty course requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:

Option 1: Microprocessor Systems

ELCT 91	Microprocessor Interfacing	3.0
ELCT 92	Microprocessor Applications	3.0

Option 2: Computer Systems

ELCT 62	PC Servicing	3.0
ELCT 63	PC Troubleshooting	3.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL I

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78A	Network Fundamentals	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL II

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78B	Routing Protocols and Concepts	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL III

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78C	LAN Switching and Wireless	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL IV

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78D	Accessing the WAN	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL V

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78E	Advanced Network Routing	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL VI

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78F	Implementing Secure Converged Wide-Area Networks	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL VII

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0
ELCT 78G	Building Multilayer Switched Networks	4.0

DIGITAL ELECTRONICS CERTIFICATE

Units Required: 30.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

ELECTRONICS TECHNOLOGY CERTIFICATE
Career Preparation

Units Required: 36.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units
Career specialty options are individualized instruction courses and are designed to provide the student with skills and/or knowledge in a specific area of Electronics technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty option requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:

Option 1*:* Optoelectronics

ELCT 85	Fiber Optics	3.0
ELCT 86	Lasers	3.0

Option 2*:* Telecommunications

ELCT 97	Digital Communications	3.0
ELCT 99	Microwave Communications	3.0

Option 3: Television and Video Systems

ELCT 93	TV Servicing	3.0
ELCT 94	VCR/Camcorder Servicing	3.0

Option 4*:* Industrial Electronics

ELCT 87	Industrial Control Systems	3.0
ELCT 88	Industrial Process Control Applications	3.0

Option 5*:* Biomedical Electronics

ELCT 89	Biomedical Instrumentation	3.0
ELCT 90	Advanced Biomedical Instrumentation	3.0

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) EXAMINATION PREPARATION CERTIFICATE LEVEL I

Units Required: 14.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 79A	Microsoft Certified Systems Engineer	4.0

MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE) EXAMINATION PREPARATION CERTIFICATE LEVEL II

Units Required: 14.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 79B	Microsoft Certified Systems Engineer II	4.0

NETWORK CABLING TECHNICIAN CERTIFICATE

Units Required: 16.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 69	Network Topologies and Cabling	2.0

FIBER OPTIC CABLING TECHNICIAN CERTIFICATE

Units Required: 17.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 80	Fiber Optics Cabling	3.0

A+ CERTIFICATION EXAMINATION PREPARATION CERTIFICATE

Units Required: 15.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 65	PC Monitors	3.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 7	A+ Certification Exam Preparation	2.0

N+ CERTIFICATION EXAMINATION PREPARATION CERTIFICATE

Units Required: 17.0

All of the following must be completed:

ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 77A	Networking Technology and Practices I	4.0
ELCT 69	Network Topologies and Cabling	2.0
ELCT 80	Fiber Optics Cabling	3.0

WIRELESS COMMUNICATION TECHNOLOGY CERTIFICATE

Units Required: 38.0

All of the following must be completed:

ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

SPECIAL PROGRAMS FEDERAL COMMUNICATIONS COMMISSION (FCC) COMMERCIAL RADIO OPERATOR LICENSE

FCC licenses are required by law to operate and maintain many types of communications equipment. The broadcasting, avionics, and maritime industries are the primary employers of commercial license holders. Many other fields now require FCC licenses. New technologies are evolving which must have qualified technicians and operators to comply with the procedures and rules needed to bring order to the international communications maze.

Under the auspices of the Electronics Technician Association and the International (ETA), FCC license examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following FCC commercial licenses and endorsements are obtained by successfully passing a series of examinations:

General Radiotelephone (Examination elements 1 and 3)

Radar Endorsement (Element 8)
GMDSS', Radio Operator (Elements 1 and 7)
GMDSS', Radio Maintainer (Elements 1, 3, and 9)

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

An FCC license preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College Catalog).

Note: (1) Global Maritime Distress and Safety System

CERTIFIED ELECTRONICS TECHNICIAN (CET) CERTIFICATION

CET examinations thoroughly assess an individual's (a) general knowledge of electronics and computer technology, and (b) specific knowledge in fourteen separate specialty areas. Upon successful completion of the selected examination, the technician is registered and receives the CET certificate from the Electronics Technician Association, International. This certificate identifies the technician as having attained a high level of competence in the profession.

Under the auspices of the Electronics Technician Association, International (ETA), CET examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following Electronic Technician Certifications and endorsements are obtained by successfully passing a series of examinations:

Associate: For students and entry level technicians with less than four years of experience. This examination pertains to basic Electronics and computer technology.

Journeyman: For technicians with four or more years of combined education and experience. This examination consists of the associate examination plus one of the following options:

Telecommunications Electronics Technician - TCM
Certified Network Systems Technician - CNST
Certified Web Specialist - CSW
Registered Small-Dish Installer - RSDI
Certified Satellite Installer - CSI
Certified Fiber Optics Installer Technician - FOIC
Wireless Communications Electronics Technician – WCM
Radar Electronics Technician - RAD
Biomedical Electronics Technician - CMP
Certified Computer Electronics Technician - CMP
Consumer Electronics Technician - CSM
Video Electronics Technician - VID
Certified Industrial Electronics Technician - IND
Certified Network Computer Technician - CNCT

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

A CET certification preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College catalog).

Associate Degree
To earn an Associate in Science degree with a major in Electronics and Computer Technology, complete a minimum of 18 units from any of the certificate requirements above or from any Electronics and Computer Technology courses and meet all Victor Valley College graduation requirements. The Associate Degree Electronic Engineering Technology Certificate includes all general education requirements for an Associate in Science degree with a major in Electronic Engineering Technology. ELCT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Most Electronics and Computer Technology courses transfer as Electives or fulfill subject credit requirements. Students in this field sometimes choose to pursue a bachelor's degree in technology fields such as Industrial Technology at California State Polytechnic University, San Luis Obispo, or Engineering Technology at California State Polytechnic University, Pomona. Other students choose to pursue an Engineering degree which requires a more intense curriculum in mathematics, chemistry, and physics. See Engineering for transfer requirements.

Campuses that offer Electronics and Computer Technology majors include: CSU - Chico, Fullerton, Long Beach, Pomona and Sacramento. Visit www.assist.org for major preparation requirements.

ELECTRONICS AND COMPUTER TECHNOLOGY COURSES

ELCT 5 CET EXAM PREPARATION
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

Covers all electronic circuits required by the Electronics Technicians Assn. International for successful completion of the Certified Electronic Technician examination. Includes DC and AC circuits, filters, thyristors, transistors, diodes, power supplies, and voltage regulators; also covers test equipment used in electronics including voltmeters, ammeters, oscilloscope frequency meters, and VTVM's's. This course will not apply to the Associate Degree.

ELCT 6 FCC LICENSE PREPARATION
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

Designed for students enrolled in Electronics Communications Systems. Topics include Element 3 Examination (General Radio Telephone) - provisions of laws, treaties and regulations, radio operating procedures and practices; technical matters including fundamentals of electronics technology and maintenance techniques. This course will not apply to the Associate Degree.

ELCT 7 A+ CERTIFICATION EXAMINATION PREPARATION
Units: 2.0 - 64-72 hours individualized instruction. (No prerequisite)

The A+ Certification Examination Preparation course is designed to prepare students for the A+ Certification Test. 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.

ELCT 50 A+ OPERATING SYSTEMS TECHNOLOGIES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course is designed to prepare students to take the A+ Operating Systems Technologies Examination. Topics include operating system fundamentals; Windows 2000, Windows XP and Windows XP Media Edition; installing, configuring and upgrading windows; diagnosing, troubleshooting common problems; dual booting, registry editing, command line troubleshooting; network capabilities, configuring and connecting to resources and networks on the client side.

ELCT 51 C++ PROGRAMMING FOR ELECTRONICS AND COMPUTER TECHNOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option).

This course is designed to introduce students to C++ programming for scientific applications in engineering technology through lecture and lab. Topics will include writing C++ routines for analysis of electrical and electronics circuits, real time data acquisition and analysis, modeling of electronics components, interfacing with LabView for data collection and processing, interfacing with MathCAD and Workbench.

ELCT 53 ELECTRONIC COMMUNICATION PRINCIPLES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

Study of all relevant aspects of modern communication principles. Topics include amplitude modulation transmission and reception, single-side band communications, frequency modulation transmission and reception, television, and communications techniques.

ELCT 54 ELECTRONIC COMMUNICATION SYSTEMS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

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.

ELCT 57 TECHNICAL MATHEMATICS FOR ELECTRONICS I
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

ELCT 58 TECHNICAL MATHEMATICS FOR ELECTRONICS II
Units: 3.0 - 48-54 hours lecture.. (No prerequisite)

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.

ELCT 59 TECHNICAL CALCULUS FOR ELECTRONICS I
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

ELCT 60 TECHNICAL CALCULUS FOR ELECTRONICS II
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

ELCT 61 BASIC MAINTENANCE OF PERSONAL COMPUTERS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

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.

ELCT 62 PERSONAL COMPUTER (PC): SERVICING
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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 memory, installation and upgrade. Demonstration of installation and check out of special function boards, such as FAX/modem, network interface card (NIC), video card and sound card. 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.

ELCT 63 PERSONAL COMPUTER (PC): TROUBLESHOOTING
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 65 PC MONITORS
Units: 3.0 -96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 69 NETWORK TOPOLOGIES AND CABLING
Units: 2.0 - 64-72 hours individualized instruction. (No prerequisite)

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.

ELCT 70 PC OPERATING SYSTEMS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

This course provides the student with the necessary background working with MS DOS 6.22 and MS Windows 3.11 for Workgroups to successfully pursue the A+ certification program. This is a self-paced program that utilizes computer aided instruction (CAI) as the principle instruction tool.

ELCT 71 PRINCIPLES OF DIGITAL LOGIC AND CIRCUITS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers semiconductors for digital circuits, digital logic circuits and digital integrated circuits; introduces Boolean Algebra, flip-flops and registers, sequential logic circuits and combinational logic circuits. Students learn how digital circuits are used in semiconductor memories; how data is converted from analog-to-digital and digital-to-analog formats; and how to troubleshoot digital circuits.

ELCT 73 MICROPROCESSOR PRINCIPLES
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course covers computer number systems and codes, computer arithmetic, programming, the internal

register, structure of the 6800 and 6808 micro-processors, 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.

ELCT 78A NETWORK FUNDAMENTALS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

The goal of this course is to introduce students to fundamental networking concepts and technologies. It will assist students in developing the skills necessary to plan implement small networks across a range of applications. Topics include OSI and TCP/IP models, different network topologies, IP addressing and sub-netting. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements.

ELCT 78B ROUTING PROTOCOLS AND CONCEPTS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students with hands-on approach will be able to analyze, configure, verify and troubleshoot routing protocols RIPv1, RIPv2, EIGRP, and OSPF. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements.

ELCT 78C LAN SWITCHING AND WIRELESS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course provides a comprehensive and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students will learn how to select network devices for each layer. The course explains how to configure a switch and how to implement Virtual LANs, VTP, Inter-VLAN routing. It also discusses the implementations of Spanning Tree Protocol. Students will develop the skills necessary to implement a Wireless LAN in a small to medium network. Satisfies Cisco Certified Network Associate (CCNA) certification exam requirements.

ELCT 78D ACCESSING THE WAN
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course discusses the Wide Area Network (WAN) technologies and network services required to gain access outside the Local Area Network (LAN). Students learn in a hands-on approach how to implement and configure different technologies to access the WAN. Topics include Point-to-Point Protocol (PPP), Frame Relay, Network Security, Access Control Lists (ACLs), Virtual Private Networks (VPN), Network Address Translation (NAT) DHCP and IPv6. Satisfies Cisco Certified Network Associates (CCNA) certification exam requirements.

ELCT 78E ADVANCED NETWORK ROUTING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course is the first of a four course series designed to prepare students towards the Cisco Certified Network Professional (CCNP) certification. It introduces students to advanced IP address management, scaling IP networks, IP addressing using VLSM, private addressing, and NAT to optimize address utilization. Majority of the course deals with advanced topics in configuring routing protocols (RIPv2, EIGRP, ISIS, multi-area OSPF, and BGP), also covers important topics and techniques for route filtering, route optimization and route redistribution.

ELCT 78F IMPLEMENTING SECURE CONVERGED WIDE-AREA NETWORKS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This is the second course of a four course series designed to prepare students for Cisco's (CCNP) certification. This course will cover advanced topics in Wide Area Network (WAN). Students learn with hands-on approach how to configure and implement different WAN technologies with focus on VPN configuration and securing network access. Topics include teleworker configuration and access, frame-mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, Cisco device hardening and IOS firewall features.

ELCT 78G BUILDING MULTILAYER SWITCHED NETWORKS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This is the third of a four course series designed to prepare students for Cisco's (CCNP) certification. This course will cover advanced topics in building Multilayer Switched Networks. Students learn with hands-on approach how to deploy state-of-the-art campus LANs. Topics include VLANs, Spanning Tree Protocol (STP), VTP, Inter-VLAN Routing, Layer three Switches, Wireless Client Access, Voice over IP (VoIP) Switch Configuration, Redundancy and Fault Tolerance.

ELCT 78H OPTIMIZING AND TROUBLESHOOTING NETWORKS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This is the fourth and last course of a four course series designed to prepare students for Cisco's CCNP certification. This course will cover advanced topics in optimizing and troubleshooting converged networks. Students learn with hands-on approach how to implement, optimize and troubleshoot networks operating voice, wireless and security applications. Topics include implementing a Voice over IP (VoIP) network, implementing Quality of Services (QoS) on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management.

ELCT 78I FUNDAMENTALS OF NETWORKING SECURITY
Units: 4.0 - 48 hours lecture and 48 hours laboratory. (No prerequisite)

This course is designed to teach students in a hands-on lab environment fundamentals of network security. Topics include Securing the Perimeter Router, Site-to-Site Virtual Private Network (VPN), Remote Access VPN, Intrusion Detection System (IDS), Cisco PIX Security Appliance, analyzing network vulnerabilities, threats, securing the network from reconnaissance attacks, access attacks, Denial of Service (CoS) attacks, Distributed DoS attacks, Worms, Trojan horse and viruses. This course prepares students to take one of the required tests for the Cisco Certified Security Professional (CCSP) certification, and CompTIA Security+ certification.

ELCT 78J FUNDAMENTALS OF WIRELESS LANS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course focuses on the design, installation, configuration, operation and troubleshooting of 802.11a, 802.11b, 802.11g, 802.11n wireless LANs. It delivers a comprehensive overview in a hands-on lab environment of wireless technologies, security, design, and best practices with emphasis on real world applications and case studies. Topics include wireless radio technology, wireless topologies, antennas, access points, bridges, wireless security, Guest VLAN, site survey, installation, management, diagnostic tools, monitoring, and discussions on wireless emerging technologies. It also prepares students towards obtaining Cisco Wireless LAN Support Specialist certificate.

ELCT 79A MICROSOFT CERTIFIED SYSTEMS ENGINEER
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

This is the first of a series of courses required for Microsoft MCSE certification. Topics will include installing Windows 2000 Professional, installing Windows 2000 by using Windows 2000 Server Remote Installation Services (RIS), deploy service packs, manage and troubleshoot access to shared folders, manage shared printers, configure Advance Power Management (APD), encrypt data by using Encrypting Files System (EFS), manage hardware profiles, and configure and troubleshoot TCP/IP protocol.

ELCT 79B MICROSOFT CERTIFIED SYSTEMS ENGINEER II
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite Recommended: ELCT 79A Microsoft Certified Systems Engineer. Grade Option)

The second in a series of courses required for Microsoft MCSE certification. Topics include: installing and configuring Microsoft Windows 2000 server; unattended installation of Windows 2000 server; Microsoft Windows 2000 file systems and advanced file systems; active directory services; administering Microsoft Windows 2000 server; administering print services; network protocols and services; routing and remote access services; Microsoft Windows 2000 security; monitoring and optimization; Microsoft Windows 2000 application servers.

ELCT 80 FIBER OPTICS CABLING
Units: 3.0 - 96-108 hours individualized instruction. (Prerequisite: ELCT 69)

This course is designed to introduce students to fiber optic communications, transfer equipment and cabling. Students will explore fiber optics theory, operation of transfer equipment, assembly and repair of fiber optic cabling.

ELCT 81 SOLDERING THEORY AND TECHNIQUES
Units: 1.0 - 32-36 hours individualized instruction. (No prerequisite)

This hands-on course is designed to provide the student basic soldering theory and techniques. Topics include: soldering theory, types of soldering irons, soldering iron tips, soldering guns, solder connections, and unsoldering techniques. Course includes construction project.

ELCT 83 SMALL OFFICE/HOME OFFICE (SOHO) NETWORKING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option)

Small Office/Home Office (SOHO) course is designed for persons with little or no background in networking technologies to setup, operate, maintain and troubleshoot office/home Local Area Network (LAN). Topics include: Networking Components Identification and Installation, Installing, Configuring and Troubleshooting Basic Local Area Networks, wireless

Networking, Internet Access and Sharing, SOHO Network Security and Virus Protection, Microsoft Windows 2000/XP Network configuration and Resource Sharing, Video Conferencing for Telecommuters, and VoIP Networking.

ELCT 84 COMPUTER NETWORKING
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

Students learn how to formulate network specifications, install, and maintain local area computer networks (LAN). Topics and activities include: fundamentals and protocols of data communications and communication architectures, selection, preparation, and installation of LAN cabling, network operating systems, and troubleshooting. Students will install and configure modems, connect telephone lines, operate modems, and transfer files. Satisfies computer industries A+ certification requirements.

ELCT 85 OPTOELECTRONICS: FIBER OPTICS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 86 OPTOELECTRONICS: LASERS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 87 INDUSTRIAL ELECTRONICS: INDUSTRIAL CONTROL SYSTEMS, DEVICES AND CIRCUITS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 88 INDUSTRIAL ELECTRONICS: INDUSTRIAL PROCESS CONTROL APPLICATIONS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite).

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.

ELCT 91 MICROPROCESSOR INTERFACING
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

This course is designed to give the student a practical working knowledge of interfacing a microprocessor with external sensing and activator systems. Topics include microprocessor basics, buses, address decoding, 68HC1 I chip structure and internal features, instruction timing, switch decoding, interfacing with displays and adapters, I/O control techniques, data communications, serial/parallel conversion, interfacing to RAM, EPROMs, analog-to-digital and digital-to-analog devices.

ELCT 92 MICROPROCESSOR APPLICATIONS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 97 TELECOMMUNICATIONS: DIGITAL COMMUNICATIONS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 99 TELECOMMUNICATIONS: MICROWAVE COMMUNICATIONS
Units: 3.0 - 96-108 hours individualized instruction. (No prerequisite)

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.

ELCT 110 ELECTRONICS AND COMPUTER TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course is designed to expose students to a wide range of electronics and computer technologies in a simplified, practical and non-mathematical hands-on approach. Topics will include electronics and computers applied to automotive and medical fields, global positioning satellites (GPS), home entertainment systems, surround sound and digital flat panel TVs, digital music compression and recording, Internet, wireless and wired networking in the house, computer hardware setup and operation, how to use personal computer (PC) applications, basic PC diagnostics, upgrade and troubleshooting.

ELCT 131 D.C. CIRCUIT THEORY AND ANALYSIS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. Offered Fall, Spring. (No prerequisite)

An in-depth analysis of DC theory and circuit operation. Topics include applications of Ohm's Law, Kirchhoff's Laws and their applications to series, parallel and series-parallel circuits, voltage dividers and bridge circuits, magnetism, electromagnetic induction, and network theorems, and an introduction to alternating voltages and currents.

ELCT 132 A.C. CIRCUIT THEORY AND ANALYSIS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

ELCT 133 SOLID STATE DEVICES AND CIRCUITS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

ELCT 134 SOLID STATE CIRCUIT ANALYSIS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite)

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.

ELCT 138 COOPERATIVE EDUCATION
See Cooperative Education (1 - 8 units). CSU

ELCT 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

EMERGENCY MEDICAL TECHNICIAN

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

EMT I can be completed in one class. Classes in this area meet California State EMS authority and ICEMA regulations.

Career Opportunities
Emergency Medical Technician

Faculty
Full Time
Brian Hendrickson
Scott Jones
Dave Oleson

Degrees and Certificates Awarded
Emergency Medical Technician I Certificate (Ambulance)
Emergency Medical Technician Certificate (Refresher)

Recommended preparation for EMT
Note: Although there is currently no prerequisite for the EMT course, students might wish to consider taking the following as an introduction:

ALDH 70 Emergency Medical Responder 2.5 units

Certificate Programs

EMERGENCY MEDICAL TECHNICIAN I CERTIFICATE (AMBULANCE)

Units Required: 9.0

Complete the online Orientation prior to the first day of class; visit http://www.vvc.edu/academic/emt/

ALDH 71	Emergency Medical Technician I (Ambulance) Valid for two years from date of issue.	9.0

EMERGENCY MEDICAL TECHNICIAN CERTIFICATE (REFRESHER)

Units Required: 1.0

Required for renewal of Emergency Medical Technician Certificate

ALDH 72	Emergency Medical Technician (Ambulance) Refresher Course	1.0

ENGINEERING

Victor Valley College does not offer this program, but does offer preparatory courses needed for transfer into Engineering.

Engineers seek to understand and solve a broad range of technological problems faced by our society. Engineers are responsible for such projects as converting raw materials and power sources into useful products, developing scientific equipment, and designing and planning the construction of buildings, highways, and rapid transit systems. As society becomes more technologically complex, so do the ever-emerging branches of engineering.

The rigorous curriculum of engineering programs is for high achieving students who have developed good study habits and possess a strong math and science background.

Degrees and Certificates Awarded
Associate in Science, Math/Science

Associate Degree
No associate degree offered with a major in Engineering from Victor Valley College. Because the math and science requirements are so extensive, students usually pursue an associate degree with a major in Math/Science.

Transfer
Engineering is a highly competitive transfer degree which is impacted at many universities. The following courses are minimal requirements for most engineering majors: CHEM 100, 201, 202; MATH 226, 227; PHYSICS 100, 201, 202, 203.

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

- **California State University**
  CSU Campuses that offer Engineering majors include: Chico, Fresno, Long Beach, Los Angeles, Northridge, Pomona, Sacramento, San Diego, San Francisco, San Jose, San Luis Obispo and Maritime Academy.

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 kinds 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)

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
Teacher
Professor

Faculty
Full Time
Tim Adell
Claudia Basha - Emeritus
Bryce Campbell
Andrea Glebe
Patty Golder
Carol Golliher - Emeritus
Joe Pendleton
Judy Solis
Patricia Teel
Karen Tomlin
Patricia Wagner

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program No certificates awarded.

Associate Degree
No associate degree offered with a major in English. English courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements. ENGL 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  English major
- **University of California, Riverside**
  English major

ENGLISH COURSES

ENGL 6 BASIC READING AND WRITING
Units: 4.0 - 64-72 hours lecture. This course will not apply to the associate degree. (No prerequisite.)

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.

ENGL 8 READING IMPROVEMENT
Units: 3.0 - 48-54 hours lecture. This course will not apply to the associate degree. (No prerequisite)

The course emphasizes the improvement of vocabulary and reading comprehension skills. Course work focuses on comprehension, analysis and evaluation of textbooks and other pre-college level reading materials. Assignments develop study strategies such as textbook marking, test taking and concentration.

ENGL 10.0 LABORATORY IN WRITING
Units: 1.0 - 48-54 hours laboratory. This course does not apply to the Associate Degree. (No prerequisite. Pass/No Pass.) This course may be taken four times.

This lab in the Writing Center is recommended for students taking any writing-intensive course at VVC. Emphasis is on the one-to-one tutorial approach, computer-assisted instruction, and word composing/processing.

ENGL 50 WRITING FUNDAMENTALS
Units: 4.0 - 64-72 hours lecture. (Prerequisite: ENGL 6 or eligibility as determined by VVC assessment.)

A practical writing course emphasizing expository writing, including planning, organizing, composing short essays, reading a variety of college preparatory texts, and editing for punctuation, diction, usage and sentence structure.

ENGL 50L LABORATORY-ENHANCED STUDY FOR ENGLISH 50
Units: 1.0 - 64-72 hours lecture. (Prerequisite: ENGL 6 or eligibility as determined by VVC assessment.)

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.

ENGL 59 EFFECTIVE READING AND STUDY SKILLS
Units: 3.0 - 48-54 hours lecture.

This course is designed for students reading just below college level and preparing to take transfer level courses. Assignments focus on comprehension, analysis and evaluation of textbooks and other college level reading materials. Emphasis is placed on reading skills including study methods, vocabulary development and critical thinking. The strategies apply to a wide range of fields including drama, history , natural science and psychology.

ENGL 61 TUTORING WRITING
Units: 3.0 - 48-54 hours lecture. (Prerequisite: ENGL 101.0 or ENGL H101 with a grade of 'C' or better

This course will expose students to the theoretical concepts and practical issues involved in tutoring various levels of writing. Students will develop an understanding of the issues and practices relevant to the role of tutoring writing through observing, reading, and discussing the relationship between the writer, his/her writing, the tutor, the classroom teacher, and the classroom environment.

ENGL 62 WRITING TUTOR WORKSHOP
Units: 1.0 - 16-18 hours lecture. (Prerequisite: ENGL 101 or ENGL H101 with a grade of 'C' or better. Pass/No Pass)

This is an interactive course that analyzes the techniques of tutoring writing. Students will examine the role of writing tutors in one-on-one conferences, discuss tutoring theory, and observe tutors in the Writing Center and/or composition instructors in the classroom. Though this class is meant to prepare students to tutor writing, any student wishing to improve his/her writing skills will benefit from this course.

ENGL 65 COLLEGE GRAMMAR
Units: 2.0 - 32-36 hours lecture. (Prerequisite: ENGL 6. Grade Option)

This course provides intensive college-level work on grammar, punctuation, and mechanics, providing practice and practical applications.

ENGL 101.0 ENGLISH COMPOSITION AND READING
Units: 4.0 - 64-72 hours lecture. CSU, UC (Prerequisite: Completion of ENGL 50 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course is designed to develop skills in analytical reading and expository writing. It will place particular emphasis on the research process, including the principles and methods of research and composing the research paper.

ENGL H101 HONORS ENGLISH COMPOSITION AND READING
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 50 with a grade of 'C' or better.)

This course emphasizes the basic approaches to writing that will be necessary in college: research, textual analysis, critical applications and discussion of texts and ideas. The class demands greater depth of research and discussion, and emphasizes the seminar approach to learning.

ENGL 102.0 COMPOSITION AND LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 101.0 or ENGL H101 with a grade of 'C' or better.)

An introduction to the genres of literature including short story, poetry, drama, and novel. Further training in writing especially about literature.

ENGL H102 HONORS COMPOSITION AND LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 101.0 or ENGL H101 with a grade of 'C' or better.)

Further training in writing and introduction to the short story, novel, poetry, and drama. The honors seminar will deepen students' insights into literature and into the process of writing about it.

ENGL 104 CRITICAL THINKING AND COMPOSITION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 101.0 or ENGL H101 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course is designed to develop the student's critical thinking, reading and writing skills beyond the level achieved in English l01.0. It will focus primarily on the analysis and evaluation of expository and argumentative discourse and on writing analytical and argumentative essays.

ENGL H104 HONORS CRITICAL THINKING AND COMPOSITION
Units: 3.0 - 48-54 hours lecture. CSU,UC (Prerequisite: completion of ENGL 101.0 or ENGL H101 with a grade 'C' or better or eligibility as determined by VVC assessment.)

This course is designed to develop the student's critical thinking, reading, and writing skills beyond the level achieved in ENGL 101.0.

ENGL 109 CREATIVE WRITING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Recommendation preparation: ENGL 101.0. Grade Option)

Principles of creative expression. Topics may cover fiction, poetry, creative nonfiction, and/or drama.

ENGL 112 TECHNICAL WRITING
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: ENGL 101 or ENGL H101 with a grade of 'C' or better)

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.

ENGL 116 AUTHORS OF THE THEATRE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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. See cross listing for TA 116.

ENGL 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC

ENGL 129 INDEPENDENT STUDY
See Independent Study (1-3 units). CSU

ENGL 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

ENGL 149 CRITICAL READING AND COLLEGE STUDY SKILLS
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: ENGL 59 with a grade of 'C' or better)

A college reading course emphasizing interpretive, analytical, and evaluative abilities required for academic reading; college vocabulary, research, and study skills.

ENGL 162 NATIVE AMERICAN LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite; ENGL 102.0 is recommended.)

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).

ENGL 210 FICTION WRITING
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: ENGL 109. Grade Option.)

Principles of writing advanced fiction, focusing on the short story and the novel.

ENGL 211 POETRY WRITING
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: ENGL 109. Grade Option.)

A workshop-style course which includes a review of forms, poetic techniques, and revision strategies.

ENGL 220 MODERN FICTION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 102.0 or ENGL H102 with a minimum grade of 'C'. Grade Option.)

Twentieth century literature, both English language and translated sources, emphasizing novels and short stories.

ENGL 225 POETRY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

British and American poetry with consideration of versification, structure, imagery, diction, themes, and genres.

ENGL 230 SURVEY OF AMERICAN LITERATURE 1600-1865
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

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.

ENGL 231SURVEY OF AMERICAN LITERATURE 1865 TO PRESENT
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

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.

ENGL 232 CHICANO/A AND LATINO/A LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 101.0 or ENGL H101)

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.

ENGL 233 AFRICAN AMERICAN LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

An introductory survey course of African American oral and written literary traditions with consideration of historical and cultural roots.

ENGL 235 CHILDREN'S LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: ENGL 101.0 or ENGL H101 with a grade of 'C' or better)

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.

ENGL 240/241 WORLD LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. ENGL 240 (Prerequisite: ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

Masterpieces in translation from earliest times through the Renaissance (240), and from the Neoclassical to modern times (241).

ENGL 245 SURVEY OF ENGLISH LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

A survey of major British writers from the Middle Ages through the Eighteenth Century, including an examination of language development, historic and cultural backgrounds, and literary trends; special consideration of Chaucer, Spenser, Marlowe, Shakespeare, Bacon, Donne, Milton, Dryden, and Pope.

ENGL 246 SURVEY OF BRITISH LITERATURE ROMANTIC PERIOD TO 20th CENTURY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 102.0 or ENGL H102 with a grade of 'C' or better)

A survey of major British writers from the Romantics and their contemporaries through the 20th century, including an examination of historic and cultural and literary trends. Special consideration of major authors such as Blake, Wordsworth, Byron, Browning, Wilde, Conrad, Yeats, Eliot, Woolf, Auden.

ENGL 247 SHAKESPEARE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: ENGL 101.0 or ENGL H101 with a grade of 'C' or better)

An introduction to Shakespeare's work through a study of his principal plays and sonnets.

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.

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

ENGLISH AS A SECOND LANGUAGE (ESL) COURSES

VVC offers a wide variety of noncredit ESL classes at lower levels, from low beginning to advanced level. Please consult the Class Schedule for a description of these classes, along with times and locations.

ESL 3 LOW BEGINNING READING AND WRITING
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory hours. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

Students at this level demonstrate little or no competence in communicating through writing and little or no control of vocabulary, grammar and sentence structure. Course is designed to teach students basic alphabet and phonics, and to read and write simple stories. Students will copy text and/or generate words or simple phrases; develop awareness of appropriate word choice or correct form; write simple sentences in thematic units.

ESL 5 BEGINNING LISTENING AND SPEAKING
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for the non-native speaker of English who has no ability or very little competence in speaking and listening. Emphasis is on developing students' ability to listen and understand basic English. Nonverbal social customs are taught; nonverbal behavior and cross-cultural communication are taught implicitly through modeling, interaction and demonstration.

ESL 12A BASIC COMPUTER LITERACY
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This is a three part course in ESL Computer Literary for non-native speakers of English. The focus of the course is to develop language skills related to computer usage. Students will learn computer uses for ESL courses and educational purposes.

ESL 12B BASIC COMPUTER LITERACY
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Recommended preparation: Completion of ESL 12A is strongly recommended. Pass/No Pass)

This course is designed for non-native speakers of English. The focus of the course is to expand and develop basic computer knowledge for ESL educational purposes.

ESL 13 HIGH BEGINNING READING AND VOCABULARY
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for the non-native speakers of English with some competence in reading and vocabulary. The course focuses on reading abilities through the enhancement of vocabulary skills and cultural awareness. Emphasis is placed on developing a life-long ability to read for pleasure. American culture is introduced through newspapers, folk tales, short stories and cross-cultural readers.

ESL 23 PRE-INTERMEDIATE READING AND VOCABULARY
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for non-native speakers of English. Focus is on development and practice of fundamental reading and vocabulary skills needed to academic and workplace settings. Reading skills include comprehension, understanding new vocabulary in context and scanning for specific information. Students read simplified texts on academic and vocational subjects.

ESL 25 PRE-INTERMEDIATE LISTENING AND SPEAKING
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass.)

Course is designed for non-native speakers of English. This course focuses on fundamental speaking and listening skills for ESL students who have a basic knowledge of common English words and phrases. Students learn to understand short spoken passages, including questions and warnings. Speaking skills include describing familiar situations and events, such as giving basic information on the telephone.

ESL 27A PRE-INTERMEDIATE WRITING AND GRAMMAR
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for non-native speakers of English. Course focus is on fundamental writing and grammar skills for ESL students who have a basic knowledge of common English words, phrases, and structure. Students write at the sentence and paragraph level, learn to organize ideas, and edit for grammar, spelling and punctuation.

ESL 27B PRE-INTERMEDIATE WRITING AND GRAMMAR II
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Recommended preparation: ESL 12A, ESL 23A, ESL 27A or basic knowledge of keyboarding and grammar. Pass/No Pass)

This class is the second of a two-part series of pre-intermediate grammar and writing classes. This course is designed for non-native speakers of English who want to develop grammar and writing skills. The focus is on reviewing verb tenses and introducing modals, adjectives, count and non-count articles, adverbs and adjectives. Students will practice writing and editing simple paragraphs.

ESL 30A INTERMEDIATE PRONUNCIATION I
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Recommended preparation: Completion of ESL 12A is strongly recommended. Pass/No Pass)

This course is designed for non-native speakers of English who require further practice and instruction in pronunciation. Class will help improve communication skills and achieving clear speech for success in everyday situations, workplace and school settings. This class will focus on introducing sounds of vowels and consonants and their combinations. It will introduce the basic features of English stress, rhythm and intonation.

ESL 30B INTERMEDIATE PRONUNCIATION II
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for non-native speakers of English at the high intermediate and/or advanced level of ESL. Designed for students whose speech is continuing to cause communication difficulties at work, school, or in social situations. Students practice listening, rhythm, intonation and pronunciation.

ESL 33 READING AND VOCABULARY
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. It is recommendation that students should already have basic skills in decoding information and understanding at a literal level. They should be able to read and understand short, authentic texts such as letters and instructions. Pass/No Pass)

A reading course for low intermediate ESL students emphasizing main ideas, outlining, and vocabulary in context.

ESL 33B HIGH INTERMEDIATE READING AND VOCABULARY
Units: 4.0 - 64-72 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Recommended preparation: ESL 33. Pass/No Pass)

This course is designed for non-native speakers of English who have intermediate proficiency in reading and writing English. Students will learn a variety of reading and vocabulary developmental strategies for college success. Students will learn to access a variety of technology based reading resources to further develop their reading skills.

ESL 34 HIGH INTERMEDIATE ENGLISH SKILLS AT THE WORKPLACE
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed for non-native speakers of English who wish to strengthen business communication skills. Course focus is on cultural differences, social etiquette, business idioms, and some business writing. Emphasis on developing fluency and comprehension.

ESL 35A LOW INTERMEDIATE LISTENING AND SPEAKING
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate degree. (No prerequisite. Pass/No Pass)

This course is designed for non-native speakers of English. Course focus is on casual and formal dialogues in commonplace situations, everyday language functions and conversation skills. Students learn common courtesy expressions, clarification strategies, idiomatic expressions and grammatical patterns in English.

ESL 35B HIGH INTERMEDIATE LISTENING AND SPEAKING
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate degree. (No Prerequisite. Recommended preparation: ESL 35A. Pass/No Pass)

This course focuses on speaking and listening skills for students at high intermediate level of English. Students practice a variety of conversational and listening strategies and engage in discussions. Through role play, and simulation exercises, students learn to express opinions and reach agreement.

ESL 37 INTERMEDIATE GRAMMAR
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

Students at this level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides practice in areas such as common verb tenses, question forms, and expressions of ability, permission and advice.

ESL 37A LOW INTERMEDIATE WRITING AND GRAMMAR
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course helps students at low intermediate level develop writing and grammar skills appropriate for educational and personal success. Students write short compositions on familiar topics. They learn to apply principles of grammar as they write.

ESL 37B HIGH INTERMEDIATE WRITING AND GRAMMAR
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course helps students at high intermediate level develop writing and grammar skills appropriate for educational and personal success. Students write short compositions on a variety of topics. They learn to apply principles of grammar as they write.

ESL 38 HIGH INTERMEDIATE GRAMMAR
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

Students at high intermediate level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides practice in areas such as description using adjectives and adverbs, use of gerund and infinitive forms of verbs, certain models, and nouns and articles.

ESL 40A LOW ADVANCED PRONUNCIATION
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Recommended preparation: ESL 30B highly recommended. Some internet skills advised. Grade Option)

This course is the first in a series of two classes for non-native speakers of English wanting to improve their pronunciation skills in English. Students will learn to effectively improve pronunciation for clear and effective communication in social, academic, or job settings. Through structured activities, direct instruction, and lab work, students will be able to improve their skills in those areas that comprise pronunciation, rhythm patterns, and stress.

ESL 43 LOW ADVANCED READING AND VOCABULARY
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Pass/No Pass)

This is the first of two courses designed for non-native speakers of English who are approaching advanced level of proficiency in reading English. Emphasis is on further developing reading and vocabulary skills. Students are introduced to a variety of reading genres, word structure, vocabulary, and reading strategies. This course will not apply to the Associate Degree.

ESL 43B HIGH ADVANCED READING AND VOCABULARY
Units: 4.0 - 64-72 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

This course is designed for non-native speakers of English. Skills include developing essays form longer reading passages. Students will respond to reading passages, reinforce vocabulary building and comprehension.

ESL 45 PUBLIC SPEAKING FOR ESL
Units: 3.0 - 64-72 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

This class is for non-native speakers of English at the advanced level of listening and speaking who wish to develop practical public speaking skills. The class is designed to help build confidence in speaking. Students will learn to use visual and audio aids to enhance presentation skills and to listen critically and objectively. Students will recite, develop, present, and evaluate speeches for a variety of situations.

ESL 45A CROSS CULTURAL COMMUINICATION SKILLS
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

This course is designed for non-native speakers of English who wish to understand cultural differences of North American society. Course focus is on broadening intercultural understanding for students living and working in the USA. Topics focus on different aspects of mainstream North American cultures encountered in a work or social setting.

ESL 47 ADVANCED GRAMMAR
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

Students at advanced level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides review practice and expanded study of verb tenses, gerunds and infinitives, modals, and tag questions.

ESL 48 HIGH ADVANCED GRAMMAR
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

Students at high advanced level learn and apply rules of English grammar and structure for use in oral and written communication. This course provides review practice and expanded study of phrasal verbs and introduces passive forms, conditional statements, adjective clauses, and indirect speech.

ENVIRONMENTAL STUDIES

A number of disciplines on campus offer classes and vocational certificates focusing on different aspects of Environmental Studies. See listings under the following departments: Agriculture and Natural Resources, Biology, Chemistry, Construction Technology, Computer Integrated Design and Graphics, Electronics, Fire Technology, Geography, and Political Science.

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.

The college now boasts a **Green Technology Educational Pathway Initiative** (GTPI) to help prepare students for success in this ever-evolving world. The GTPI is a collaborative among education, business, and the community that has spent several years developing programs promoting sustainability practices and training students in the skills needed to fill the emerging "green jobs."

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Environmental Studies major
- **University of California, Riverside**
  Environmental Sciences major

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:

- **ANTHROPOLOGY**
  ANTH 151
- **ART**
  ART 101, 102, 103, 104, 105, 106, 107, 108, 109, 112, 113, 115, 120, 121, 122, 123, 124, 125, 126, 128, 129, 131, 132, 133, 141, 142, 150, 151

- **MUSIC**
  MUSC 100, 101, 102, 103, 104, 105, 110, 111, 116, 117, 118, 120A-J, 122, 123, 124, 125, 126,128, 129, 130, 131, 132, 134, 135, 136, 139, 140, 141, 143, 144 145, 147, 202, 203, 204, 205, 210, 211

- **PHYSICAL EDUCATION/DANCE**
  PE 103, 128; PEDA 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 174, 175, 176, 177, 266, 267, 270, 271, 274, 275, 276

- **PHOTOGRAPHY**
  PHOT 52, 53, 54, 100, 101, 103, 105, 129

- **THEATRE ARTS**
  ENGL 116*, TA 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116*, 117, 120, 128, 129, 160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275

*Engl 116 and TA 116 are the same class.

Transfer
To pursue a bachelor's degree in this field, there are many schools that have programs that might interest you. For the most up-to-date information on these programs, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

FIRE TECHNOLOGY

Fire protection is a highly specialized professional field requiring extensive knowledge and use of scientific principles. Successful application of the fundamental principles of fire protection, including suppression and extinguishment of fires, rescue, emergency medical services, prevention techniques and practices, preplanning for fire protection, and disaster control, requires technical knowledge and the ability to work within an organized system at the fire ground or other emergency scene. These actions require trained, professional people to accomplish the goals and objectives of today's public and/or private organizations in meeting their commitment to the public and employees they serve. Fire Technology provides the student the opportunity to prepare for a rewarding career in the public fire service or in private industry.

For the most current information about VVC's Fire Technology programs, application deadlines, costs, and other requirements, please visit http://www.vvc.edu/academic/fire_technology/.

Fire Technology
This program provides vocational and technical in-service training for interested students. Each student who completes a program of courses that meets the specified requirements is entitled to a Certificate of Completion in that field. Certificates are awarded as evidence that well defined levels of proficiency have been attained and they are recognized as such by employers.

In order to be awarded the certificate, the student must have completed the prescribed program with at least a 2.0 grade point average in the prescribed course work. The number of courses prescribed for each certificate varies according to the area of training.

Career Opportunities
Apparatus Operator
Disaster Preparedness
Fire Administrative Analyst
Fire Chief
Fire Division Chief
Fire Fighter I
Fire Officer I
Fire Prevention Specialist
Fire Protection Engineer
Industrial Fire Safety Specialist

Faculty
Full-time
Tom Turner

Degrees and Certificates Awarded
Associate in Science, Fire Technology
Fire Fighter Certificate
Fire Prevention Officer Certificate
Fire Company Officer Certificate

Recommended preparation for the Fire Academy

It is highly recommended that students complete the following courses prior to applying for the Fire Fighter Academy:

FIRE 11B*	Confined Space Awareness	0.5 units
FIRE 66	Introduction to Incident Command	1.0 units
FIRE 69	Building Construction for Fire Protection	3.0 units
FIRE 82A	Hazardous Materials First Responder	1.5 units
ALDH 70	Emergency Medical Responder	2.5 units
ALDH 71	Emergency Medical Technician	9.0 units

*Courses numbered below 50 do not apply to the Associate Degree

Certificate Programs

FIRE FIGHTER CERTIFICATE

Units Required: 32.0

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.

All of the following must be completed:

FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 82A	Hazardous Materials First Responder	1.5
FIRE 81	Emergency Medical Technician	9.0
OR ALDH 71	Emergency Medical Technician I (Ambulance)	
FIRE 95	Basic Fire Academy	10.0

FIRE COMPANY OFFICER CERTIFICATE

Units Required: 64.5 units minimum

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.

Group I – All of the following must be completed:

FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 105	Fire Apparatus and Equipment	3.0
FIRE 106	Fire Company Organization and Management	3.0
FIRE 108	Fire Hydraulics	3.0
FIRE 70	Fire Instructor Training 1A	2.0
FIRE 71	Fire Instructor Training 1B	2.0
FIRE 72	Fire Command 1A	2.0
FIRE 73	Fire Command 1B	2.0
FIRE 76	Fire Management 1	2.0
FIRE 82A	Hazardous Materials First Responder	1.5
FIRE 81	Emergency Medical Technician	9.0
OR ALDH 71	Emergency Medical Technician I (Ambulance)	
FIRE 95	Basic Fire Academy	10.0
CIS 101	Computer Literacy	4.0

Group II – Three of the following courses must be completed:

FIRE 107	Fire Investigation	3.0
FIRE 109	Wildland Fire Control	3.0
FIRE 61	Rescue Practices	3.0
FIRE 74	Fire Prevention 1A	2.0
FIRE 75	Fire Prevention 1B	2.0
FIRE 77	Investigation 1A	2.0

FIRE PREVENTION OFFICER CERTIFICATE

Units Required: 30.0

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.

All of the following must be completed:

FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 107 *OR*	Fire Investigation	3.0
FIRE 77 & 79	Investigation 1A and 1B	4.0
FIRE 70	Fire Instructor Training 1A	2.0
FIRE 71	Fire Instructor Training 1B	2.0
FIRE 74,75, 78	Fire Prevention 1A, 1B, 1C	6.0
FIRE 76	Fire Management 1	2.0

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

Transfer
Not usually a transfer major. Some Fire Technology courses do transfer as Electives or fulfill subject credit requirements.

As an exception, California State University, Los Angeles offers a B.S. degree in Fire Protection Administration and Technology which requires a minimum of 15 major units to be completed in Fire Technology at a community college. Visit www.assist.org 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.

FIRE TECHNOLOGY COURSES

FIRE 1 FIRE COMMAND 1C – I-ZONE FIRE FIGHTING FOR COMPANY OFFICERS
Units: 2.0 - 32 hours lecture and 6 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: FIRE 72, Fire Command 1A and FIRE 66, I-200 Basic ICS. State mandated.)

The course is designed around the responsibilities of the Company officer at a wildland/urban interface incident. It will bring the structural Company Officer out of the city and into the urban/interface incident. In other words, from his or her comfort zone into an area that could very well be quire unfamiliar. This course is required for Fire Officer Certification by the Office of the State Fire Marshal.

FIRE 3A CERTIFIED VOLUNTEER FIRE FIGHTER
Units: 3.0 - 32-36 hours lecture and 64-72 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: Must pass sport participation examination prior to entrance into class. State mandated. Grade Option.)

The course, the first of two courses, is designed to prepare the student with information and skill development necessary to perform the tasks of a certified volunteer fire fighter within California. Provides a foundation of information and skill development necessary to enter college level courses in fire technology and/or a career in the fire service. Students must complete FIRE 3A and FIRE 3B to qualify for state certificate.

FIRE 3B CERTIFIED VOLUNTEER FIRE FIGHTER
Units: 3.0 - 32-36 hours lecture and 64-72 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: Must pass sport participation examination prior to entrance into class. State mandated. Grade Option.)

The second of two courses, is designed to prepare the student with information and skill development necessary to perform the tasks of a certified volunteer fire fighter within California. Provides a foundation of information and skill development necessary to enter college level courses in fire technology and/or a career in the fire service. Students must complete FIRE 3A and FIRE 3B to qualify for state certificate.

FIRE 4A FIRE FIGHTER II ACADEMY
Units: 1.5 - 16-18 hours lecture and 32-36 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: FFI status, or completion of FFI Academy [FIRE 95], or recommendation of training officer from a fire protection organization. Pass/No Pass.)

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 firefighting, flammable gases and liquids firefighting 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.

FIRE 4B RESPONSE TO TERRORISM
Units: 1.0 – 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

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.

FIRE 5B FIRE COMMAND 2B-MANAGEMENT OF MAJOR HAZARDOUS MATERIALS
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (No prerequisite)

This course prepares the firefighting 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.

FIRE 5C FIRE COMMAND 2C-HIGH RISE FIRE TACTICS
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (No prerequisite)

This course prepares the fire fighter student to manage a fire in small and large high rise buildings. Topics of discussion include: pre-fire planning; building inventory; problem identification; ventilation methods; water supply; elevators; life safety; 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.

FIRE 5D INCIDENT COMMAND SYSTEM-SCENE MANAGER
Units: 1.5 - 24-27 hours lecture. This course will not apply to the Associate Degree. (No prerequisite)

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.

FIRE 5E STRIKE TEAM LEADERS, DOZERS (S-335)
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: ICS-100, 200, 300/State mandated. Pass/No Pass)

This course prepares the fire fighter student to work as a strike team leader in charge of a task force or strike team of dozers for wild land fire control within the incident command system. This fire fighter course discusses duties, responsibilities, procedures and materials involved in the operation of the dozer strike team and the function of the strike team leader. National Wild Land Coordinating Group certified. Certification fee $5. This course will not apply to the Associate degree.

FIRE 5F INMATE FIRE CREW SUPERVISOR
Units: 3.0 - 32-36 hours lecture and 32-36 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66, FIRE 86, ICS-100, 200, 300/State Mandated. Pass/No Pass)

This course prepares the fire fighter student with the skills and information necessary to work within the Incident Command System (ICS) as an inmate fire crew supervisor. Responsibilities, duties and materials required to operate and manage an inmate fire crew are presented. Wild land fire tactics and strategies for hand crews and hand crew fire safety are feature. National Wild Land Coordinating Group certified. $5.00 certification fee.

FIRE 5G S-356 SUPPLY UNIT LEADER
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: I- 300, S-301. State Mandated. Pass/No Pass)

This course provides the fire fighter student with information to perform the tasks of the Supply Unit Leader within the Incident Command system (ICS). CDF certified. Northwest Coordinating Group approved.

FIRE 5H FOOD UNIT LEADER
Units: 1.5 - 16-18 hours lecture and 12 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: FIRE 66, FIRE 86, ICS-100, 200, 300/State mandated. Pass/No Pass)

This course prepares the fire fighter student with the skills and information necessary to work within the Incident Command System (ICS) as a food unit leader. Responsibilities, duties and materials required to operate and manage a food unit are presented. National Wild Land Coordinating Group certified.

FIRE 5I GROUND SUPPORT UNIT LEADER
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate degree. (Prerequisite: FIRE 86/State mandated. Pass/No Pass)

This course prepares the fire fighter student to work as a ground unit leader within the Incident Command System (ICS). Responsibilities of the ground unit leader, procedures and materials involved with the operation and function of the ground support unit are discussed. National Wild Land Coordinating Group certified. Certification fee is $5.

FIRE 5.1J VOLUNTEER FIRE OFFICER'S ACADEMY
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate degree. (No prerequisite)

This course is designed to provide the information and skills necessary for the fire fighter/and or driver operator who desire to promote to the rank of company officer; for company officers who desire to remain current with innovative management, leadership and human relations techniques; and for training officers who are responsible for teaching and developing officers and future officer candidates. This course is designed for the fire fighter student with essential fire fighter skills.

FIRE 6A BASIC FIRE ENGINE OPERATION ACADEMY, CDF
Units: 3.5 - 48-54 hours lecture and 64-72 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: Successful completion of Basic Forest Firefighter course, valid class B (commercial or firefighter) California Driver's license with Tank and Air Brake Endorsements; successful completion of Hazardous Materials First Responder, Operational. State mandated. Pass/No Pass.)

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.

FIRE 6B FIRE ATTACK I: SET STANDARD FOR EXCELLENCE ON THE FIRE GROUND
Units: 1.0 - 16-18 hours lecture. (Prerequisites: Employment with a recognized fire protection agency in a position of company officer or acting company officer, or enrollment within the fire officer certification program accredited by California Fire Services Training and Education System (CFSTES) or National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Standards. Grade Option)

Fire Attack I is designed to provide the fire fighter with the latest information, tactics and strategies for combating structural fire incidents. Focus is on the decisions and responsibilities the first arriving company officer must consider to successfully mitigate the incident. This class will not apply to the Associate degree.

FIRE 6C LEADERSHIP FUNDAMENTALS
Units: 2.0 - 32-36 hours lecture. (No prerequisite. Pass/No Pass) This course may be taken again only with a grade of "D" or lower.

This course is designed to prepare the fire fighter student within the California Department of Forestry to take a new position of company officer by providing skills in supervision and management. Topics include motivation, communication, discipline, leadership, time management and team building. This course will not apply to the Associate degree.

FIRE 7 FIRST RESPONDER – MEDICAL
Units: 2.0 - 32-36 hours lecture and 10 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

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.

FIRE 7A FIRST RESPONDER MEDICAL, REFRESHER
Units: 1.0 - 16-18 hours lecture and 8-9 hours laboratory. This course will not apply to the Associate Degree. (No Prerequisite. Pass/No Pass) This course may be taken four times.

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.

FIRE 8B EMERGENCY MEDICAL TECHNICIAN, REFRESHER
Units: 0.5 - 8-9 hours lecture and 16-18 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: Must possess valid EMT I, State Fire Marshal's certificate-State regulation. Pass/No Pass) This course may be taken four times.

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.

FIRE 8C EMT-ID, DEFIBRILLATION
Units: 0.5 - 8-9 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: possess a current Basic Care Life Support (BCLS) card, possess certification as an EMT 1, and be currently employed with an approved EMT I D provider. State mandated. Pass/No Pass)

This course will provide the Emergency Medical Technician (EMT 1) training in the skill of defibrillation (D). Course content is based on California State Department of Health requirements, as delineated in title 22 of the California Administrative Code, Division 9, Chapter 2, Section 10064.

FIRE 9 FIRE CONTROL III, STRUCTURAL FIRE FIGHTING, INSTRUCTOR
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

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 firefighting skills and organizational concepts.

FIRE 9A FIRE CONTROL IV, OIL AND GAS FIRE FIGHTING TECHNIQUES
Units: 0.5 - 8-9 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

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, water-flow requirements and actual fire extinguishing exercises. A basic knowledge of firefighting skills and knowledge plus access to appropriate safety equipment and clothing is presumed.

FIRE 10 FIRE FIGHTER SKILLS MAINTENANCE
Units: 4.0 - 32-36 hours lecture and 96-108 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: FIRE 100 and FIRE 90 or FIRE 95 or equivalent. Employment as career fire fighter or paid call fire fighter recommended)

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.

FIRE 10A SKILLS MAINTENANCE FOR PAID CALL FIRE FIGHTER
Units: 1.5 - 16-18 hours lecture and 32-36 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite)

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.

FIRE 10B WILDLAND FIRE FIGHTER'S SKILLS MAINTENANCE
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: Employment as a wildland fire fighter or fire fighter serving a community with wildland or interface fire conditions. State mandated. Pass/No Pass.) This course may be taken four times.

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.

FIRE 10C COMPANY OFFICER'S SKILLS MAINTENANCE
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: Employment as a wildland fire fighter or fire fighter serving a community with wildland or interface fire conditions. State mandated. Pass/No Pass.) This course may be taken four times.

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.

FIRE 10D HAND CREW FIRE FIGHTER SKILLS MAINTENANCE
Units: 1.5 - 16-18 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: Employment as a hand crew fire fighter with a modern fire service agency. State mandated. Pass/No Pass.) This course may be taken four times.

This course provides the fire fighter student with new information and skill development to maintain efficiency and effectiveness as a wild land 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.

FIRE 11 LOW ANGLE ROPE RESCUE OPERATIONAL
Units: 1.0 - 8-9 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass) This course may be taken four times.

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 firefighting skills.

FIRE 11A RESCUE SYSTEMS I
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. This course will not apply to the Associate degree. (No prerequisite. Pass/No Pass) This course may be taken again only with a grade of "D" or lower.

The 40-hour State Fire Rescue Systems I course is designed to provide the student with the ability to apply basic search and rescue skills, approach rescue situations safely and understand the organizational concerns at a structural collapse incident. Upon completion of the course, the student will receive a California State Fire Marshals Certificate, which is the basic requirement for other rescue classes.

FIRE 11B CONFINED SPACE RESCUE AWARENESS
Units: 0.5 - 8-9 hours lecture. This course will not apply to the Associate degree. (No prerequisite. Pass/No Pass) This course may be taken again only with a grade of "D" or lower.

Designed for all fire service personnel. This course provides instruction in identifying a permit and non-permit required confined space, the hazards associated with confined spaces, target industries and hazards, state regulations, communications, and equipment requirements. This course does not qualify participants to make permit required entries. OSFM-SFT certification. Material and FSTEP Certification Fee.

FIRE 11D CONFINED SPACE RESCUE OPERATIONAL
Units: 3.0 - 40-45 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisite: FIRE 11 and FIRE 11B. Pass/No Pass.) This course may be taken two times.

This course is designed for personnel who in the discharge of rescue duties find themselves working in "immediately dangerous to life and health environments". This is the 40 hour California State Fire Marshal course required for USAR Team members.

FIRE 15 S-244, FIELD OBSERVER/DISPLAY PROCESSOR
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: FIRE 60G. State mandated. Pass/No Pass)

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.

FIRE 16 TECHNICAL SPECIALIST, CREW
Units: 1.0 - 16-18 hours lecture and 24-27 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66.1. State mandated. Pass/No Pass) This course may be taken four times.

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.

FIRE 17 BASIC FIRE CREW, CAPTAIN
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (Prerequisite: Appointment to the fire crew captain position. State mandated. Pass/No Pass)

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.

FIRE 18 CLASS A FOAM OPERATIONS
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: FIRE 80. State mandated. Pass/No Pass)

This course is an introduction to Class A firefighting foams used on wild land fires. Classroom principles and field application techniques are featured. CDF certified. 16-18 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: FIRE 80. State mandated. Pass/No Pass)

FIRE 20 I-333 STRIKE TEAM LEADER, CREW
Units: 1.0 -16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite.)

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 wild land fire suppression operations.

FIRE 21 CALIFORNIA DEPARTMENT OF FORESTRY FIRING OFFICER 2-234
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite.)

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.

FIRE 21A FIRING METHODS AND PROCEDURES
Units: 1.5 - 24-27 hours lecture. This course will not apply to the Associate Degree. (Prerequisites: FIRE 66, FIRE 80A. State mandated. Grade Option)

This course provides the fire fighter student with information about firing techniques and related firing devices used in wildland fire suppression. Includes basic safety instructions and procedures to follow when immediate and unplanned back firing or burning out of an area is deemed necessary for wild land fire control. CDF certified. North West Coordinating Group approved.

FIRE 26 S-205, INTERFACE OPERATIONS
Units: 1.0 - 12 hours lecture and 12 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed to prepare the fire fighter student with the skills and techniques to fill the training needs for initial attack commanders and company officers confronting wildland fires that threaten life, property, and improvements within the interface areas of southern California. Topics include: size-up, initial strategy and action plan, structure triage, action plan assessment, public relations and safety.

FIRE 27 S-403, INFORMATION OFFICER
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (Prerequisite: FIRE 66 and FIRE 86. State mandated. Pass/No Pass)

This course is designed to prepare the fire fighter student with the skills and techniques to fill the Incident Command System (ICS) position of Information Officer. Topics include duties and responsibilities of the Information Officer, working with the media, working with the public and other agencies.

FIRE 28 I-342, DOCUMENT UNIT LEADERS
Units: 0.5 - 8-9 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed to provide skills that enable the fire fighter student to perform the position of Document Unit Leader within the Incident Command System (ICS). Procedures of the Document Unit Leader, responsibilities and materials required are presented.

FIRE 29 S-430, OPERATIONS SECTION CHIEF
Units: 2.0 - 32-36 hours lecture. This course will not apply to the Associate Degree. (Prerequisite: I-300, S290, Certification as Strike Team Leader or Division Supervisor. State mandated. Pass/No Pass).

This course is designed to prepare the fire fighter student with the skills and techniques to fill the Incident Command System (ICS) position of Operations Section Chief. Topics discussed include: information gathering, interaction with the command staff and general staff, incident action plan development, operation period briefing, daily schedule, and demobilization.

FIRE 30 INSTRUCTION TECHNIQUES FOR COMPANY OFFICERS
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite.)

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.

FIRE 30A NATIONAL FIRE ACADEMY PUBLIC FIRE EDUCATION PLANNING
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite.)

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.

FIRE 33 FIRE LINE EMERGENCY MEDICAL TECHNICIAN (EMT) ACADEMY
Units: 1.0 - 12 hours lecture and 12 hours laboratory. This course will not apply to the Associate Degree. (Prerequisites: Current EMT certification and employment in public or private fire service organization. State mandated. Pass/No Pass)

This course is designed to prepare the fire fighter EMT to safely operate at a major wildland fire incident at the fire line location. Topics discussed include duties and responsibilities of the fire line EMT, equipment needs, helicopter safety, incident command system organization, and review of treatment for common fire line injuries and use of makeshift aids.

FIRE 40 FIRE FIGHTER ENTRANCE EXAMINATION TECHNIQUES
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Grade Option)

This course is designed to prepare the student to take and successfully pass the entrance level fire fighter examination process. Topics discussed include: seeking

employment opportunities, the application process, the various examinations given to applicants, oral interviews, and other aspects of the examination process.

FIRE 40A FIRE FIGHTER PHYSICAL AGILITY ENTRANCE EXAMINATION TECHNIQUES
Units: 1.0 - 48-54 hours laboratory. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course is designed to prepare the student to take and successfully pass the entrance level fire fighter physical agility examination through physical conditioning and specificity training. Emphasis on physical conditioning and exercise.

FIRE 40F BUILDNG CONSTRUCTION FOR FIRE SUPPRESSION FORCES/WOOD/ORDINARY
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

This course provides the fire fighter student with the principles of wood and ordinary construction as they apply to the fire service. The primary emphasis is on improving the fire fighters ability to ensure fire safety on the fire ground by recognizing common causes and indicators of building failure, collapse and other hazards related to building construction. Designed to improve the operational effectiveness of the fire officer and fire fighter by being able to predict the overall reaction of a building to fire conditions.

FIRE 50 FIRE SERVICE SUPERVISION-INCREASING PERSONAL EFFECTIVENESS
Units: 1.0 - 16-18 hours lecture. (No Prerequisite. Pass/No Pass)

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.

FIRE 51 FIRE SERVICE SUPERVISION-INCREASING TEAM EFFECTIVENESS
Units: 1.0 - 16-18 hours lecture. (No Prerequisite. Pass/No Pass)

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.

FIRE 52 COMMANDING THE INITIAL RESPONSE
Units: 1.0 - 16-18 hours lecture. (No Prerequisite. Pass/No Pass)

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.

FIRE 53 HAZARDOUS MATERIALS FIRST RESPONDER OPERATIONAL DECONTAMINATION
Units: 0.5 - 8-9 hours lecture. (Prerequisite: FIRE 82A. Pass/No Pass)

This course provides the student with the information and skills to safely and competently decontaminate people and equipment at a hazardous materials (haz mat) incident. California Specialized Training Institute (CSTI) certified. Meets federal and state requirements as listed in 29 CFR 1910.120 (q), CCR 5192 (q), NFPA472. $10.00 fee for CSTI certificate.

FIRE 54 FIRE COMMAND 2E
Units: 2.0 - 32-36 hours lecture. (No prerequisite. Pass/No Pass)

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.

FIRE 55 FIRE INSTRUCTOR 2A
Units: 2.5 - 40-45 hours lecture. (Prerequisite: FIRE 70 and FIRE 71. State mandated. Grade Option)

This course is designed to provide the fire technology student the skills to evaluate students. Topics include: construction of written (technical knowledge) and performance (manipulative skills) tests, as well as test planning, test analysis, test security, and evaluation of test results to determine instructor and student effectiveness. Essential course for writing valid, objective tests.

FIRE 56 FIRE INSTRUCTOR 2B
Units: 2.5 - 40-45 hours lecture. (No prerequisite. Grade Option)

This course is designed for the fire technology student who require skills leading groups of people in staff meetings, group discussions, and training sessions to solve problems, determine objectives, generate new ideas and provide instruction to subordinates.

FIRE 58 INTRODUCTION TO EMERGENCY MANAGEMENT
Units: 4.0 - 64-72 hours lecture. (No Prerequisite. Grade Option)

This course provides the history, terminology, goals and mission of the Emergency Management occupation and profession. The roles, responsibilities, lines of authority and characteristics of effective program managers are presented. Professional associations, federal support programs, model state practices and functional activities are also discussed.

FIRE 58A COMMUNITY DISASTER PLANNING
Units: 4.0 - 64-72 hours lecture. (No Prerequisite. Grade Option)

This course provides the student with the information and details to develop a community or company disaster plan. Topics of discussion include: developing a disaster plan for a company or community, developing a hazard analysis and capability assessment, building consensus, leveraging political assets to insure community readiness, and the process of adoption and revision. Students also will receive certificates from the Federal Emergency Management Agency (FEMA): IS-15, Special Event Contingency Planning; IS-3, Radiological Emergency Preparedness; IS-324, Community Hurricane Planning; IS-11, Animals in Disasters, Community Planning.

FIRE 58B EMERGENCY MANAGEMENT RESPONSE
Units: 4.0 - 64-72 hours lecture. (No Prerequisite. Grade Option)

This course provides the student with the information and details of coordinating and operating a community emergency operations center (EOC). How to coordinate the resources of a community or company, identify specific threats, and the operational requirements of an EOC are presented. Students will also receive certificate of completion from the Federal Emergency Management Agency (FEMA): IS-275, The Role of the EOC in Community Preparedness, Response and Recovery; IS-271, Anticipation of Weather and Community Risk; IS-301, Radiological Emergency Response; Q-534, Emergency Response to Terrorism; IS-288, Managing Volunteer Resources.

FIRE 58C EMERGENCY MANAGEMENT RECOVERY
Units: 4.0 - 64-72 hours lecture. (No Prerequisite. Grade Option)

This course provides the student with the information and details of making the transition from response to recovery to a company disaster. Case studies examine mass fatality management, earthquakes, flooding and terrorism incidents. Students receive certificates of completion from the Federal Emergency Management Agency (FEMA): IS-7, Citizens Guide to Disaster Assistance; IS-208, State Disaster Management; IS-600, Special Considerations for FEMA Public Assistance Projects; IS-630, Introduction to the Public Awareness Process.

FIRE 58D INTRODUCTION TO MITIGATION FOR DISASTERS
Units: 4.0 - 64-72 hours lecture. (No Prerequisite. Grade Option)

This course provides the student with the information and details to plan and implement mitigation strategies for a community or business. Mitigation includes all activities that improve a community or business's survivability from an identified threat. Identifying needs, obtaining funding and executing mitigation programs are the objectives of this course. Students also will receive certificates of completion from the Federal Emergency Management Agency (FEMA): IS-393, Introduction to Mitigation; IS-394, Mitigation for the Homeowner; IS-8, Building for the Earthquake of Tomorrow; IS-9, Managing Floodplain Development.

FIRE 59 BASIC WILDLAND FIRE FIGHTER ACADEMY
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. Pass/No Pass. Recommended preparation: Good attitude and willingness to work hard.)

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.

FIRE 60B ADVANCED INCIDENT COMMAND SYSTEM, I-400
Units: 1.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. Pass/No Pass. Recommended preparation: Good attitude and willingness to work hard.)

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.

FIRE 60C INCIDENT SAFETY OFFICER, S-401
Units: 1.5 - 24-27 hours lecture. (Prerequisites: FIRE 66.1, FIRE 80A, FIRE 6OE or employment within a recognized fire service agency at the rank of company officer or above. State Mandated. Pass/No Pass)

This course prepares the fire fighter student to work as a safety officer within the Incident Command System, with emphasis on unsafe and hazardous conditions at emergency scenes. Fire Service Training and Education Program (FSTEP) certified. There is a $5.00 fee for certificate.

FIRE 60E DIVISION/GROUP SUPERVISOR, S-339
Units: 1.0 - 16-18 hours lecture. (Prerequisites: FIRE 60G, FIRE 66, FIRE 86. State Mandated. Pass/No Pass).

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.

FIRE 60F ICS-334 STRIKE TEAM LEADER-ENGINE
Units: 1.0 - 16-18 hours lecture. (No prerequisite, Pass/No Pass)

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.

FIRE 60G INCIDENT COMMANDER, INITIAL ATTACK, S-200
Units: 1.0 - 16-18 hours lecture. (Prerequisites: FIRE 66, FIRE 80. State mandated by California Fire Service Training and Education (CFSTES) and Incident Command system (ICS) by NWCG, or experience as a fire fighter working within the ICS. Pass/No Pass)

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.

FIRE 60H INCIDENT COMMANDER, EXTENDED ATTACK, S-300
Units: 1.0 - 16-18 hours lecture. (Prerequisites: FIRE 60G, FIRE 66, FIRE 86. State mandated. Pass/No Pass)

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.

FIRE 61 RESCUE PRACTICES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory.

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.

FIRE 61A MEDICAL UNIT LEADER, S-359
Units: 0.5 - 8-9 hours lecture. (Prerequisites: FIRE 81 and FIRE 66.1. State mandated. Pass/No Pass)

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.

FIRE 61B BASIC AIR OPERATIONS, S-270
Units: 1.0 - 16-18 hours lecture. (Prerequisite: FIRE 66. State mandated. Pass/No Pass)

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.

FIRE 61C HELISPOT MANAGER, S-272
Units: 0.5 - 8-9 hours lecture. (Prerequisite: FIRE 60G. State Mandated. Pass/No Pass)

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.

FIRE 61D RESOURCE UNIT LEADER/ DEMOBILIZATION UNIT LEADER
Units: 2.0 - 32-36 hours lecture. (Prerequisites: FIRE 61E and FIRE 66.1. State mandated. Pass/No Pass)

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.

FIRE 61E CHECK IN/STATUS RECORDER, S-248
Units: 0.5 - 32-36 hours lecture. (Prerequisites: FIRE 61E and FIRE 66.1. State mandated. Pass/No Pass)

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.

FIRE 61F STAGING AREA MANAGER
Units: 0.5 - 8-9 hours lecture. (Prerequisite: FIRE 60G, S-200. Pass/No Pass)

This course will provide the fire fighter student with information about the duties, responsibilities and materials required to function as a staging area manager. Fire Service Training Education Program (FSTEP) certified.

FIRE 61G FIRE LINE EMERGENCY MEDICAL TECHNICIAN (EMT)
Units: 0.5 - 8-9 hours lecture. (Prerequisites: FIRE 81, current EMT--I certification (state mandated per CFSTES policy), employment as a fire fighter in a public or private fire service organization. Pass/No Pass)

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.

FIRE 63 APPARATUS DRIVER/OPERATOR IA
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. (No prerequisite)

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.

FIRE 64 APARATUS DRIVR/OPERATOR IB
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. (No prerequisite)

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.

FIRE 65 BASIC WILDLAND FIRE CONTROL
Units: 2.0 - 28 hours lecture, and 16-18 hours laboratory. Offered Spring. (No prerequisite)

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.

FIRE 65O CAMPBELL PREDICTION SYSTEM
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Pass/No Pass)

This course is designed for the fire fighter and fire officer who want to know why, when and where wildland fire behavior will change, and how to make these predictions to apply safe and effective tactics or evacuate a dangerous area and learn a system to effectively communicate these predictions to others. California Department of Forestry certified.

FIRE 66 INTRODUCTION TO INCIDENT COMMAND
Units: 1.0 - 16-18 hours lecture. (No prerequisite)

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).

FIRE 67 TRENCH RESCUE
Units: 0.5 - 8-9 hours lecture. (No prerequisite)

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.

FIRE 69 BUILDING CONSTRUCTION FOR FIRE PROTECTION
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

FIRE 70 INSTRUCTOR IA – INSTRUCTIONAL TECHNIQUES PART I
Units: 2.5 - 40-45 hours lecture. (No prerequisite)

This is the first of a three-course series. Topics include methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching cognitive lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two (2) student instructor teaching demonstrations are required of all. Designed for personnel preparing for company officer, SFT registered instructor or training officer position.

FIRE 71 TRAINING INSTRUCTOR 1B – PSYCHOMOTOR LESSON DELIVERY
Units: 2.5 - 40-45 hours lecture. (Prerequisite: FIRE 70 with a grade of C or better.) This course may be taken four times.

This is the second of a three-course series. Topics include methods and techniques for training in accordance with the latest concepts in career education; selecting, adapting, organizing, and using instructional materials appropriate for teaching psychomotor lessons; criteria and methods to evaluate teaching and learning efficiency; and an opportunity to apply major principles of learning through teaching demonstrations. Two student instructor teaching demonstrations are required of all. Designed for personnel preparing for a Company Officer, SFT Registered Instructor, or Training Officer position.

FIRE 72 FIRE COMMAND IA – COMMAND PRINCIPLES FOR COMPANY OFFICERS
Units: 2.0 - 32-36 hours lecture. Offered Fall. (No prerequisite)

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, fire-ground resources, operations and management. This course applies to Fire Officer certification.

FIRE 73 FIRE COMMAND IB – HAZARDOUS HAZARDOUS MATERIALS COMMAND PRINCIPLES FOR COMPANY OFFICERS
Units: 2.0 - 32-36 hours lecture. (No prerequisite. FIRE 66 recommended)

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.

FIRE 74 FIRE PREVENTION IA – FIRE INSPECTION PRACTICES
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 74C FIRE PREVENTION 2A
Units: 2.5 - 40-45 hours lecture. (No prerequisite)

This course provides the most up-to-date information on laws and regulations pertaining to systems, description, installations and problems relating to fire protection systems. This course is specifically designed for in-service fire department personnel wishing to complete their Prevention Officer II certification.

FIRE 74D FIRE PREVENTION 2B
Units: 2.5 - 40-45 hours lecture. [Prerequisite: Completion of State Fire Training (SFT) Fire Prevention Officer Certification Track].

This course provides the participants with extensive, in depth information about the fire and life safety standards of buildings as they relate to Titles 19 and 24. Topics for discussion include: Types of construction, construction methods and materials, interior finishes, roof coverings, occupancy and more.

FIRE 74E FIRE PREVENTION 2C
Units: 2.5 - 40-45 hours lecture. (Prerequisite: Completion of State Fire Training (SFT) Fire Prevention Officer Certification Track)

This course introduces the participants to unique and unusual prevention challenges. Topics include: Industrial ovens, cleaning and finishing processes, welding, refrigeration systems, medical gases, fireworks, and special extinguishing systems.

FIRE 75 FIRE PREVENTION IB – CODE ENFORCEMENT
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 76 MANAGEMENT 1-SUPERVISION FOR COMPANY OFFICERS
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 77 INVESTIGATION IA – FIRE CAUSE AND ORIGIN DETERMINATION
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 78 FIRE PREVENTION IC – FLAMMABLE LIQUIDS AND GASES
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 79 FIRE INVESTIGATION IB
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

This course provides the participants with information to achieve a deeper understanding of fire investigation. This course builds on FIRE 77 Investigation IA and adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures.

FIRE 80 INTRODUCTION TO WILDLAND FIRE BEHAVIOR, S-190
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Pass/No Pass)

This course will familiarize the student with the basic concepts and components of wildland fire behavior. North West Coordinating Group (NWCG) certified.

FIRE 80A INTERMEDIATE WILDLAND FIRE BEHAVIOR, S-290
Units: 2.0 - 32-36 hours lecture and 8-9 hours laboratory. (Prerequisites: FIRE 80. State mandated by California Fire Service Training and Education (CFSTES) and Incident Command System by North West Coordinating Group, or experience as a fire fighter working within the ICS. Credit No/Credit)

This course will present to firefighting 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. Coordinating Group, or experience as a fire fighter working within the ICS. Credit No/Credit)

FIRE 80B WILDLAND FIRE SUPPRESSION TACTICS, S-336
Units: 2.0 - 32-36 hours lecture. (Prerequisites: FIRE 80A, FIRE 66. State mandated. Pass/No Pass)

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.

FIRE 81 EMERGENCY MEDICAL TECHNICIAN I
Units: 8.0 - 120 hours lecture and 28 hours laboratory. (Prerequisite: Students must complete TB test and provide copy of immunization records prior to clinical training.)

The first phase of training in the Emergency Medical Technician I career for fire fighters and other emergency first responders. Covers all techniques of emergency medical care considered the responsibility of the Emergency Medical Technician I. Course emphasizes the development of student skills in recognition of symptoms of illness and injuries and proper procedures of emergency care. Course includes certification in professional CPR (Cardio Pulmonary Resuscitation). Approved by the California State Fire Marshal's Office and the State Board of Fire Services. Certificate from Fire Service Training and Education Program (FSTEP) awarded.

FIRE 81B EMT-I, CONTINUING EDUCATION RECERTIFICATION
Units: 0.5 - 4 hours lecture and 12 hours laboratory. (Prerequisite: EMT-1. State and county mandated. Pass/No Pass.) This course may be taken four times.

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.

FIRE 82 HAZARDOUS MATERIALS FIRST RESPONDER AWARENESS
Units: 0.5 - 8 hours lecture and 1 hour laboratory. (No prerequisites).

This course is designed to provide the student with information essential to those people who are likely to be first responders at hazardous materials incidents. Designed to meet federal and state requirements for awareness training for employees handling and using hazardous materials.

FIRE 82A HAZARDOUS MATERIALS FIRST RESPONDER OPERATIONAL
Units: 1.5 - 24-27 hours lecture. (No prerequisite)

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.

FIRE 83 FIRE MANAGEMENT 2C, LABOR AND PERSONNEL MANAGEMENT
Units: 2.0 - 32-36 hours lecture. (No prerequisites)

This course provides the fire fighter student with knowledge and insight into firefighting personnel, human resources, and diversity management. Legal mandates, labor relations, and related areas are explored with a focus on human resource management and individual employee development strategies.

FIRE 84 FIRE COMMAND 2A-COMMAND TACTICS AT MAJOR FIRES
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

This course is designed to provide the student with the management techniques and use of the Incident Command System (ICS) necessary for the efficient and safe command of large fires, multiple alarms and emergencies requiring large numbers of personnel and apparatus. Features simulation and case studies to develop management and command skills. Applies to Chief Officer Certification. California Fire Service Training and Education System (CFSTES) approved.

FIRE 85 FIRE MANAGEMENT 2A-ORGANIZATIONAL DEVELOPMENT AND HUMAN RELATIONS
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

This course provides the student with information on how to make the transition from supervisor to manager. Topics of discussion include internal and external influences; personality traits of fire fighters; managing human relations; group dynamics; conflict solution and more. This course applies to Chief Officer Certification. California Fire Service Training and Education System (CFSTES) approved.

FIRE 86 INTERMEDIATE INCIDENT COMMAND SYSTEM (ICS)
Units: 1.5 - 24-27 hours lecture. (Prerequisite: FIRE 66 or experience as a fire fighter using the ICS system. Pass/No Pass)

This course expands the firefighting student's knowledge of ICS and how to expand the system to fit the emergency and adds air operations and the control and management of these resources to the ICS system.

FIRE 87 FIRE MANAGEMENT 2E
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

Designed for Fire Chief Officers, Company Officers and functional managers, this course provides an overview of current issues and concepts of today's modern fire service. Topics include: governmental relations, changing "settings/policy formation," program management, personnel/labor relations, and the legal environment.

FIRE 90 PAID CALL FIRE FIGHTER ACADEMY
Units: 3.0 - 32-36 hours lecture hours and 48-54 hours laboratory.

(Prerequisite: Without the required physical strength and stamina to safely operate and control fire service tools, equipment and apparatus the student poses an undue risk to him/herself and to other fire technology students. Physical fitness requirements include strong back, torso, and legs and arms with flexibility and agility. Good hand and eye coordination plus the ability to remain calm under conditions of stress and personal discomfort are essential. Physical medical exam equal to sport physical or a pre-employment physical is required to determine if the student has a disqualifying injury or condition that would result in an injury or accident to the student.)

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.

FIRE 91 FIRE CONTROL 5
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. (No prerequisite. Pass/No Pass)

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 firefighting and simulation is featured.

FIRE 93 FIRE MANAGEMENT 2D, MASTER PLANNING
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 94 FIRE COMMAND 2D, PLANNING FOR LARGE SCALE DISASTERS
Units: 2.0 - 32-36 hours lecture. (No prerequisite)

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.

FIRE 95 BASIC FIRE ACADEMY
Units: 10.0 - 112 hours lecture and 208 hours laboratory. (No prerequisite)

Introduction to basic firefighting 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.

FIRE 98 FIRE COMPANY OFFICER'S ACADEMY
Units: 1.5 - 24-27 hours lecture and 16-18 hours laboratory. (No prerequisite)

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.

FIRE 99 CHIEF OFFICER'S WORKSHOP
Units: 1.0 - 16-18 hours lecture. (Prerequisites: I-300, S-430, S-400. State mandated. Pass/No Pass)

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.

FIRE 100 FIRE PROTECTION ORGANIZATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

FIRE 101 FUNDAMENTALS OF FIRE SERVICE OPERATIONS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Provides the student with the fundamentals of fire department organization, management, and resources, and emphasizes the use of those resources to control various emergencies.

FIRE 102 FIRE PREVENTION TECHNOLOGY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

FIRE 103 FIRE PROTECTION EQUIPMENT AND SYSTEMS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

FIRE 104 FIRE BEHAVIOR AND COMBUSTION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course will study the theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques.

FIRE 105 FIRE APPARATUS AND EQUIPMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Fire apparatus design, specifications, and performance capabilities; effective utilization of apparatus in fire service emergencies.

FIRE 106 FIRE COMPANY ORGANIZATION AND MANAGEMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

FIRE 107 FIRE INVESTIGATION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

FIRE 108 FIRE HYDRAULICS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

Review of applied mathematics; hydraulics laws as applied to the fire service; application of formulas and mental calculation to hydraulics and water supply problems.

FIRE 109 WILDLAND FIRE CONTROL
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

FIRE 121 FIRE MANAGEMENT 2B
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite)

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.

FIRE 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

FIRE 148 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

FIRE 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

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.

Career Opportunities
Advertising
Education
Government
Health Services
International Business
Journalism
Law Enforcement
Publishing
Social Work
Writing

Faculty
Full Time
Claudia Basha - 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 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 in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  French major
- **University of California, Riverside**
  French major

FRENCH COURSES

FREN 101 ELEMENTARY FRENCH
Units: 5.0 - 80-90 hours lecture. CSU, UC. (No prerequisite)

Basic structures of French language, inductive presentation of grammar, simple composition. Emphasis placed on the spoken language.

FREN 102 ELEMENTARY FRENCH
Units: 5.0 - 80-90 hours lecture. CSU, UC. (Prerequisite: FREN 101)

Continuation of French 101 stressing review of basic structures, more advanced grammar, spoken and written communication.

FREN 103 INTERMEDIATE FRENCH
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: FREN 102)

Continuation of French 102 with grammar review and expansion, introduction to simple literary texts, spoken and written communication.

FREN 104 INTERMEDIATE FRENCH
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: FREN 103)

Continuation of French 103 with further grammar review and expansion, reading of simple literary texts, spoken and written communication.

FREN 125 CONVERSATIONAL FRENCH
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

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.

FREN 128 SPECIAL TOPICS
See Special Topics listing (Variable units).

FREN 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

See "Agriculture and Natural Resources"

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, which is used for spatial analysis of the earth's attributes.

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
GIS – Spatial Analyst
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 in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Geography major
- **University of California, Riverside**
  Geography major

GEOGRAPHY COURSES

GEOG 101 PHYSICAL GEOGRAPHY
Units: 3.0 - 48-54 hours lecture. CSU,UC (No prerequisite.)

Fundamental geographical concepts are studied. Emphasis is on the physical world, its components and interrelationships, as well as current geographic issues. Topics include earth/sun relationships and seasons, weather and climate, earthquakes and volcanoes, rocks and minerals, oceans and coastlines, glaciers, and landform distribution. Also included are introductory methods of map interpretation.

GEOG 101L GEOGRAPHY LABORATORY
Units: 1.0 - 48-54 hours laboratory. CSU, UC
(Prerequisite: GEOG 101 with a grade of 'C' or better)

An interactive exploration of earth's weather and climate, vegetation and soils, rocks and minerals, earthquakes and volcanoes. Tectonic forces are studied as relating to landform destruction and creation. Gradational forces are studied as relating to the processes of water, wind and ice.

GEOG 102 INTRODUCTION TO CULTURAL GEOGRAPHY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

An examination of human activities on the surface of the earth as exhibited by various cultures. Global variations in land-use systems, settlement patterns, economic activities, political and religious institutions, languages, and the numbers and movement of human populations are explored.

GEOG 103 GEOGRAPHY OF CALIFORNIA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

Study of California's physical and cultural characteristics. Physical topics covered include earthquakes, fires, landslides, floods and volcanoes. Cultural topics include diversity, immigration, urbanization, agriculture and economics.

GEOG 104 WORLD REGIONAL GEOGRAPHY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

An examination of the world's countries within their global regions with emphasis on their physical and cultural attributes. Variations within and among these global regions are explored.

GEOG 110 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS(GIS)
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

GIS basics and applications are explored, including terminology, mapping and problem solving. Current GIS software applications and GPS navigational systems are utilized.

GEOG 120 METEOROLOGY
Units: 4.0 - . 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

A comprehensive study of meteorological principles which focus on real-time weather situations. Maps and graphics of current weather data illustrate the basic components of weather, such as temperature, pressure, wind, precipitation and severe weather phenomena, including tornadoes and hurricanes.

GEOG 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU. UC.

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.

Career Opportunities
Mining Geologist
Environmental Planner
Ground Water Quality Manager
Petroleum Engineer
Paleontologist
Geoarchaeologist
Geological Engineer
Soil Conservationist
Metallurgist
Exogeologist (Astrogeologist)
Geomorphologist

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Geological Sciences. Courses in Geological Sciences may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Geology major
- **University of California, Riverside**
  Geology major
  Geophysics major

GEOLOGY COURSES

GEOL 101 PHYSICAL GEOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

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.

GEOL 102 HISTORICAL GEOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

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.

GEOL 103 GEOLOGY OF CALIFORNIA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

GEOL 109 GEOLOGY OF THE WESTERN NATIONAL PARKS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

GEOL 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

GEOL 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

GERMAN

The study of German focuses on explanation and communication of ideas and concepts using reading, writing, and verbal processes. Classroom emphasis is on the spoken language. Culture, literature, and civilization are important aspects of study as well. This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities
Advertising
Education
Government, including military
Health Services
Journalism
Law Enforcement
Publishing
Scientific Research
Social Work

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

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

GERMAN COURSES

GERM 101 ELEMENTARY GERMAN
Units: 5.0 - 80-90 hours lecture. CSU, UC (No prerequisite)

Inductive presentation of German language fundamentals: pronunciation, structure, simple composition, culture. Emphasis placed on using and understanding the spoken language.

GERM 102 ELEMENTARY GERMAN
Units: 5.0 - 80-90 hours lecture. CSU, UC (Prerequisite: GERM 101 or equivalent)

Continuation of GERM 101 stressing review of basic structures, introduction of more advanced grammar, spoken and written communication in authentic cultural contexts.

GERM 125 CONVERSATIONAL GERMAN
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

An introduction to the German language using situations the visitor will commonly encounter. Introduction to

simple German structures and vocabulary with emphasis on the spoken language.

GERM 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

GERM 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU.

GRAPHIC ARTS

See Computer Integrated Design and Graphics

GUIDANCE

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

Students needing help in identifying career and educational goals or help in applying successful learning and studying techniques are encouraged to sign up for these classes.

GUIDANCE COURSES

GUID 10 SUPPORT CLASS FOR LEARNING DISABLED STUDENTS
Units: 1.0 - 16-18 hours lecture. This course will not apply to the Associate Degree. (No prerequisite. Pass/No Pass)

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.

GUID 50 COLLEGE SUCCESS
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Grade Option)

This survey course is designed to introduce personal management and study techniques that are commonly applied among successful college students, with an emphasis on concepts such as the learning process, time management, note taking, efficient textbook reading, memory development and effective test-taking. It also serves as an orientation to college procedures and available campus resources.

GUID 51 ORIENTATION TO COLLEGE
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Grade Option.)

This class is designed to provide students with a well-rounded knowledge and orientation to the policies, procedures, and academic and support services available at Victor Valley College. Students will develop an educational plan relevant to their educational/career goals. It will introduce and help students understand major and general education, certificate, AA, and transfer requirements; identify the four-year college system (CSU, UC, and private); understand the financial aid process, and will allow students to develop and identify academic/career goals.

GUID 55 BUILDING MATH CONFIDENCE
Units: 1.5 - 24-27 hours lecture. (No prerequisite Grade Option.)

A group guidance program designed for those who fear math and/or are unable to deal with math successfully. Emphasis will be on how one approaches math by examining attitudes and dispelling faulty notions which erode confidence in one's ability to do math.

GUID 56 SELF ESTEEM
Units: 1.5 - 24-27 hours lecture. (No prerequisite Grade Option.)

This personal development course focuses on specific ideas and techniques to overcome negative feelings such as loneliness, guilt, depression, and inferiority. Students will develop a personal value system that leads to greater happiness and productivity.

GUID 59 SPECIAL ISSUES IN PERSONAL DEVELOPMENT
Units: 1.0 - 2.0 - (No prerequisite. Credit/ No Credit)

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.

GUID 64 ORIENTATION (EOPS)
Units: 0.5 - 8-9 hours lecture. (No prerequisite. Pass/No Pass)

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.

GUID 66 PEER ADVISING TECHNIQUES
Units: 3.0 - 8-9 hours lecture. (No prerequisite. Pass/No Pass)

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.

GUID 75 CAREER PLANNING FOR THE DISABLED
Units: 1.0 - 16-18 hours lecture. (No prerequisite. Pass/No Pass.)

This course is designed to offer students with disabilities a practical orientation in career selection and development of skills in job placement.

GUID 100 CAREER AND LIFE PLANNING
Units: 2.0 - 32-36 hours lecture. CSU. (No prerequisite. Grade Option.)

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 personal growth through assessment, career research, goal setting, and decision making.

GUID 101 FIRST YEAR EXPERIENCE
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option.)

This comprehensive course integrates personal growth, academic and career success with problem solving, critical and creative thinking. The course focuses on the following topics: life management, goal setting, career decision making, educational planning, college requirements and expectations, instructor-student interaction, cultural diversity, health maintenance, stress management, campus resources, learning styles, and strategies including lecture note-taking, test taking, and concentration.

GUID 105 PERSONAL AND CAREER SUCCESS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

This intensive course is designed to assist students in obtaining the skills and knowledge necessary to identify and reach their personal goals and achieve college and career success. Topics covered include: self-awareness, goal-setting, motivation and discipline, memory development, time management, oral and written communication skills, study skills, diversity, financial planning, and an orientation to college life. See cross listing for PSYC 105.

GUID 107 LEARNING STRATEGIES AND STUDY SKILLS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

HEALTH COURSES

HLTH 102 CONTEMPORARY PROBLEMS IN PERSONAL AND COMMUNITY HEALTH
Units: 3.0 - 48-54 hours lecture. CSU, UC. No prerequisite, Grade Option)

An introductory course emphasizing the scientific basis for making rational decisions on contemporary health problems of personal and social significance. Course includes personal nutrition, fitness, reproduction, and disease control. The course also includes a review of other current issues of community health.

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

See Construction and Manufacturing Technology

HISTORY

History examines the processes that have made today's realities. History is an evolving record of emotion, aspiration, frustration, and success. Historians deal with the goals, fears, interests, opinions, and prejudices of people in the past. What made people the way they were? What is the impact of their thought and action on people today and what is their impact on people tomorrow? As a study of people, history offers both a necessary understanding of one's place in the human experience and the conceptual framework for a lifelong avocation.

Career Opportunities
Careers usually require bachelor's or advanced degrees.

Advertising/Marketing Research
Archivist/Museum Curator
Educator
Genealogist
Historian
Journalist/Writer/Editor
Lobbyist/Law Clerk/Lawyer
Management Trainee
Politician/Diplomat
Pollster
Professor
Reference Librarian
Risk Analyst
Researcher
Teacher
Writer

Faculty
Full Time
James Comer
Tracy Davis
Lisa Ellis
Eric Mayer

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificate awarded.

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  History major
- **University of California, Riverside**
  History major

HISTORY COURSES

HIST 50 UNITED STATE HISTORY
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

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.

HIST 55 HISTORY OF THE VICTOR VALLEY
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

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.

HIST 103 WORLD HISTORY TO 1500
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

Course will focus on the beginnings of civilization some five to seven thousand years ago in Mesopotamia, Asia, the Americas, Classical Civilizations and the Axis Age with an understanding of the world in 1500. Social, cultural, geographical, political and economic history of the various world civilizations will be stressed. The course is designed to challenge erroneous assumptions about world history and contemporary realities.

HIST 104 WORLD HISTORY SINCE 1500
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

Course will cover the period of 1600 to the 1980's and will focus on the making of the modern world. Inter-locking themes will include the discovery of the New World and the rise of Capitalism, the resistance to this new economic system by the non-white world, the spread of Imperialism and the division of the world in the "core" (industrial) and "peripheral" (non-industrial) nations of the First and Third World. National revolution and rebellion especially in the 20th century will be

examined as well as the "end of the Third World" and the rise of the Pacific Rim as a model of national and economic development.

HIST 115 HISTORY OF CALIFORNIA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

HIST H115 HONORS HISTORY OF CALIFORNIA
Units: 3.0 - 48-54 hours lecture. CSU,UC (Prerequisite: Eligibility for ENGL 101.0/H101. Recommended preparation: HIST 50.)

A comprehensive study of California history, including native culture, the Mission era, the Ranchos, the Mexican War and the US conquest, and the era of US control. Economic, environmental and social issues are identified and discussed.

HIST 117 HISTORY OF THE UNITED STATES TO 1876
Units: 3.0 - 48-54 hours lecture. CSU,UC (UC credit limitation). (No prerequisite.)

American Civilization through the Civil War era. Native American and European antecedents will be studied. Colonial and revolutionary periods will be analyzed as well as the formation of a new nation. Gender and race issues will be examined in the light of nation building.

HIST H117 HONORS HISTORY OF THE UNITED STATES TO 1876
Units: 3.0 - 48-54 hours lecture. CSU,UC (UC credit limitation.) (No prerequisite. Recommended preparation: HIST 50)

American civilization, primarily focusing on the British colonies and the US, through the Civil War era. Native American, African and European antecedents will form part of the class. Students will analyze the colonial and revolutionary periods, as well as the Declaration of Independence and the Constitution in the formation of a new nation. The class examines gender and race issues in light of nation building and American culture. Honors classes will take students further into the course material with additional reading, in-class debates and graded roundtable discussion, and a term paper which involved both primary and secondary sources.

HIST 118 HISTORY OF THE UNITED STATES FROM 1876
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

HIST H118 HONORS HISTORY OF THE UNITED STATES FROM 1876
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite. Recommended preparation: ENGL 50 and HIST 50)

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.

HIST 128 SPECIAL TOPICS
See special Topics listing (Variable units). CSU, UC.

HIST 129 INDEPENDENT STUDY
See Independent Study (1-3 units). CSU

HIST 130 LATIN AMERICAN HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course is designed to give students a chronological overview of Latin American History beginning with pre-Colombian societies and concluding with Latin American Independence. Focuses on the impact of the conquest of the "New World", the role of the Catholic Church, Spanish mercantilism, and the economienda system, on the indigenous population and the development of Latin American society.

HIST 131 LATIN AMERICAN HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC. HIST 130 (No prerequisite)

This course is designed to give students a chronological overview of Latin American History beginning with Latin

American Independence and concluding with present events and problems in Latin America. Students will gain an understanding of the social, economic, political, and diplomatic elements that have been the basis for post-Independence Latin American development. Special emphasis will be placed on US-Latin American relations.

HIST 145 PTK STUDY TOPIC SEMINAR
Units: 1.0 - 16-18 hours lecture. CSU, UC. (No prerequisite. Pass/No Pass)

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.

HIST 153 AFRICAN AMERICAN HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

The progression of the Black American's slave experience to the present. Emphasis on the struggle for social, political, and economic parity.

HIST 155 WOMEN IN U.S. HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

History of women in the United States from early colonial era to the present. This course must assume some understanding of the formative events in U.S. history and will focus on the changing roles women have played in society, family, and work.

HIST 157 NATIVE AMERICAN HISTORY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: HIST 117, HIST 118, and ENGL 101.0)

This is an overview of Native cultures from Mexico to the Arctic, and a history of Native peoples since European contact. It deals with native societies, the Indian Wars, and contemporary issues. This course begins with an overview of methodological issues and proceeds through ethnographic information on the major regions of the North American supercontinent to a discussion of the era of European contact and contemporary issues.

HONORS

The honors program offers enriching experiences to improve the quality of education for academically talented students who are striving for advanced academic achievement. Honors courses are more extensive and intensive in terms of research, depth of discussion and material covered. They are designed to promote a deeper, more comprehensive understanding of the material and the connectedness of disciplines while preparing students to excel later in advanced degree preparation. They offer additional opportunities for independent and focused study, and more individualized interdisciplinary, experimental, enhanced and collaborative learning experiences. Students participate in advanced seminars and intensive research and course work. Students should be self-motivated and must have demonstrated superior academic achievement in either high school or college.

Victor Valley College is a member of the Honors Transfer Council of California. This membership can provide students with numerous scholarship and financial aid opportunities, as well as possible transfer advantages to participating universities, such as UCLA, UCR, UCI, Whitman College and many others.

For enrollment criteria or any other information contact the Honors Coordinator at (760) 245-4271, ext. 2691.

HONORS COURSES

BIOL H100 HONORS GENERAL BIOLOGY
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU (No prerequisite)

This is an introductory course for honors students emphasizing the scientific method, analysis of scientific data, the use of scientific units, cellular biology, genetics and heredity, classification and systematics, evolution, ecology, environmental issues, and current topics in biology. The laboratory complements the lecture topics via direct experimentation, simulations, and video, including a survey of Earth's biological diversity. Specific topics will be emphasized through the use of reading assignments and the preparation of a short research paper.

CHEM H100 HONORS INTRODUCTORY CHEMISTRY
Units: 6.0 - 64-72 hours lecture and 96-108 hours laboratory. CSU, UC.

A foundation in the fundamental concepts, theories, and methodologies of Introductory Chemistry is highly recommended. Critical thinking and analytical skills will be used to develop problem-solving strategies used in Chemistry. Emphasis will be on the use of communication and information technologies in the analysis and presentation of experimental data.

CHEM H206 HONORS INTRODUCTORY CHEMISTRY II: ORGANIC CHEMISTRY
Units: 5.0 - 64-72 hours lecture and 96-108 hours laboratory. CSU, UC

Modern organic synthesis, biotech, and pharmaceutical laboratories assess the feasibility of their proposed syntheses using computer generated models of target compounds. Current trends in modern research indicate a growing dependence on computational chemistry. This program will extend topics covered in CHEM 106 into basic concepts of computational chemistry. Emphasis will be on molecular modeling techniques, acquisition, processing, and presentation of experimental data.

CHEM H207 HONORS INTRODUCTORY CHEMISTRY III: BIOCHEMISTRY
Units: 5.0 - 64-72 hours lecture and 96-108 hours laboratory. CSU, UC.

The application of molecular modeling techniques to biological marmomolecules. Computer generate force-fields and molecular graphics will be used to study structural geometry, potential energy surfaces, energy gradients, bond energies, and bond angles. Confirmation analyses will be performed to gain a practical understanding of the advantages and limitation of molecular modeling.

ENGL H101 HONORS COMPOSITION AND READING
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 50 with a grade of "C" or better.)

This course emphasizes the basic approaches to writing that will be necessary in college: research, textual analysis, critical applications and discussion of texts and ideas. The class demands greater depth of research and discussion, and emphasizes the seminar approach to learning.

ENGL H102 HONORS COMPOSITION AND LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: Completion of ENGL 101.0 with a grade of "C" or better)

Further training in writing and introduction to the short story, novel, poetry, and drama. The honors seminar will deepen students' insights into literature and into the process of writing about it.

ENGL H104 HONORS CRITICAL THINKING AND COMPOSITION
Units: 3.0 - 48-54 hours lecture. CSU,UC (Prerequisite: completion of ENGL 101.0 with a grade of "C" or better or eligibility as determined by VVC assessment.)

This course is designed to develop the student's critical thinking, reading, and writing skills beyond the level achieved in ENGL 101.0.

HIST H115 HONORS HISTORY OF CALIFORNIA
Units: 3.0 - 48-54 hours lecture. CSU,UC (Prerequisite: Eligibility for ENGL 101.0/H101. Recommended preparation: HIST 50.)

A comprehensive study of California history, including native culture, the Mission era, the Ranchos, the Mexican War and the US conquest, and the era of US control. Economic, environmental and social issues are identified and discussed.

HIST H117 HONORS HISTORY OF THE UNITED STATES TO 1876
Units: 3.0 - . 48-54 hours lecture. CSU,UC (UC credit limitation.) (No prerequisite. HIST 50 recommended.)

American civilization, primarily focusing on the British colonies and the US, through the Civil War era. Native American, African and European antecedents will form part of the class. Students will analyze the colonial and revolutionary periods, as well as the Declaration of Independence and the Constitution in the formation of a new nation. The class examines gender and race issues in light of nation building and American culture. Honors classes will take students further into the course material with additional reading, in-class debates and graded roundtable discussion, and a term paper which involved both primary and secondary sources.

HIST H118 HONORS HISTORY OF THE UNITED STATES FROM 1876
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite. Recommended preparation: ENGL 50 and HIST 50)

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.

MATH H105 HONORS COLLEGE ALGEBRA
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

A math course for the well-prepared student. Honors MATH 105 will include the study of exponents and radicals, theory of quadratic equations, simultaneous

quadratic equations, complex numbers, equations of higher degree, inequalities, logarithmic and exponential equations, binomial theorem, matrices and determinants, partial fractions, sequences and series.

MATH H120 HONORS INTRODUCTION TO STATISTICS
Units: 4.0 – 64-72 hours lecture. CSU, UC (Prerequisite: MATH 90 with a grade of 'C' or better).

Basic statistical techniques, design and analysis for both parametric and non-parametric data are included. Descriptive statistics are included. Graphing techniques of illustrating the data are covered. Probability is covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance, and regression. Applications are drawn from a variety of fields. In addition, the Honors component will include the design of surveys, probability testing, and a research project.

MATH H226 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC. (UC Credit Limitation) (Prerequisite: MATH 104 and 105 completed with a grade of 'C' or better.)

As an introduction to the calculus of single variables, students will develop the concept of limit, apply limits to functions to determine if they are continuous, and find the derivative and determine integrals. Students will study the properties of the derivative and integral, their relationship to each other given by the Fundamental Theorem of Calculus and some applications to the real world. In addition, the honors component will include reading proofs and writing proofs.

MATH H227 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC (Prerequisite: MATH 226 with a grade of "C" or better.)

The calculus of logarithmic, exponential, trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs and applying techniques learned to real-life problems.

MATH H228 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC (Prerequisite: Enrollment in Honors course requires acceptance into the Honors Program or prior approval from the instructor; MATH 227 with a grade of "C" or better.)

Vectors and the geometry of space, vector-valued functions, the calculus of functions of several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem, and applications. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs and apply techniques learned to real-life problems.

PHYS H204 HONORS ENGINEERING PHYSICS (LIGHT AND MODERN PHYSICS)
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 203)

The nature and propagation of light, reflection and refraction, interference, diffraction, gratings and spectra, polarization, elements of quantum physics, waves and particles.

POLS H102 HONORS AMERICAN GOVERNMENT AND POLITICS
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

PSYC H101 HONORS INTRODUCTORY PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0.)

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. It includes essential features of the biological and neurological basis of behavior.

PSYC H110 HONORS DEVELOPMENT PSYCHOLOGY
Units: 4.0 - 64-72 hours lecture. CSU Offered Fall, Spring, Summer. (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0; satisfactory completion of PSYC 101.)

This course includes the theories, methods, and research findings regarding biosocial, cognitive, and psychosocial development of the individual from conception through adulthood, including death, dying, and bereavement.

INDEPENDENT STUDY

IND STUDY 129-149-99 INDEPENDENT STUDY
Units : 1.0-3.0 - (Prerequisite: Formulation of a written statement of purpose acceptable to the instructor and demonstration of sufficient background and skill to undertake the project)

Independent Study has been designed to provide students with an opportunity for 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. The Instructor is responsible for providing advice and guidance as required, and for evaluating student performance. Instructors providing Independent Study opportunities do so, on a voluntary basis.

Units are awarded according to the following formula of time committed to the course:

1 unit	54 hours per semester
2 units	108 hours per semester
3 units	162 hours per semester

CSU may limit the number of Independent Study units accepted.

UC maximum credit allowed: three and one-third semester credits per term, six units total, in any or all appropriate subject areas combined. Granting of course credit contingent upon an evaluation of the course outline by a UC campus.

CHECK LIST AND PROCEDURE:

- Proposed Independent Study Course has an approved course outline that is in compliance with Title V regulations.
- Discuss proposed Independent Study with Instructor. (Instructor must approve).
- Complete Independent Study contract and summary form for the course. (Available at the Division Dean's office).
- Attach a course syllabus to contract, obtain instructor signature and forward to appropriate Dean for signature.
- Dean's office will forward completed application package to the VP of Instruction for approval.
- Office of Instruction will provide a section number upon VPI approval of completed application and syllabus.
- If the contract is cancelled, the student must drop the class following standard drop procedures and dates.
- A copy of the contract must remain in the Instructor's files with all materials justifying the award of grade and completion of units for audit purposes.

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.

Career Opportunities
Advertising Agency Executive
Community Relations Specialist
Copy Writer
Journalism
Promotions Manager
Public Information Officer
Publicity Director
Reporter
Television News Producer

Degrees and Certificates Awarded
No Certificates awarded

JOURNALISM COURSES

JOUR 106 INTRODUCTION TO PHOTO JOURNALISM
Units: 2.0 - 96-108 hours laboratory. CSU. (No prerequisite) This course may be taken two times.

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 106.

JOUR 108 FUNDAMENTALS OF JOURNALISM
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU. (Prerequisite: ENGL 50 with a grade of "C" or better.)

The student will learn basics of news and feature reporting and writing while producing the RamPage

student newspaper. Topics covered: interviewing techniques, legal/ethical issues, writing strategies. Students produce the campus newspaper using computers and learn about career opportunities.

JOUR 108L JOURNALISM LAB
Units: 1.0-3.0 - 48-54 hours laboratory. CSU. (Prerequisite: JOUR 108 with a grade of "C" or better.) This course may be taken four times.

This is a laboratory-only class which requires prior completion of Journalism 108. 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.

JOUR 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU

JOUR 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

JOUR 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

LATIN COURSES

LATN 101 ELEMENTARY LATIN
Units: 5.0 - 80-90 hours lecture and 16-18 hours laboratory. CSU, UC. (No prerequisite. Grade option.)

This course introduces the Latin language and the culture and history of the ancient Roman people. Students complete intensive work on grammar and vocabulary. Special emphasis is given to translating Latin fluently and accurately into English.

LATN 102 ELEMENTARY LATIN
Units: 5.0 - 80-90 hours lecture and 16-18 hours laboratory. CSU, UC. (Prerequisite: LATN 101. Grade option.)

This course is a continuation of Latin 101. Students study the Latin language and the culture of the ancient Roman people. Students complete intensive work on grammar and vocabulary and apply this knowledge to passages from ancient authors, including Julius Caesar's Gallic Wars. Special emphasis is given to translating Latin fluently and accurately into English.

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 a bachelor's degree and a high score on the LSAT:

- Pepperdine University
- Stanford University
- University of California
  Berkeley, Davis, Los Angeles
- University of La Verne
- University of Southern California

LIBERAL ARTS

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Associate Degree
The Associate degree in Liberal Arts is designed for students who wish to have a broad knowledge of the liberal arts and sciences plus additional coursework in an "Area of Emphasis." Within this major, students who plan on transferring to a university can typically satisfy both their general education requirements as well as any pre-major requirements for transfer. Consult with a counselor for information regarding your intended major and the specific college or university of your choice. Visit www.assist.org for more information.

Requirements for the AA in Liberal Arts

Minimum units:

1. **Choose one General Education Option 18**
   - **A. AA degree only,** without completing transfer requirements – 18 units minimum, including GE and proficiency requirements
   - **B. California State University GE requirements** 39 units minimum for CSU GE certification
   - **C. IGETC (for either CSU or UC)** 34 units minimum for IGETC certification
2. **Select an "Area of Emphasis" 18** Complete 18 units from one of the Areas shown below. Two or more courses in one discipline are required.
3. **Choose electives** to bring the total to 60 units **3-24** (These courses should be transferable if you select Option B or C above.)
4. **All other graduation requirements**

Total: 60

All classes listed below transfer to the CSU system; courses in **bold** also transfer to the UC system.

AREAS OF EMPHASIS

MATHEMATICS & SCIENCE: 4902.00
These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world's civilization.

To complete this emphasis, students must take at least one course in Mathematics and at least one course in Science.

ANTH: 101 + 101L
ASTR: 101
BIOL: 100/H100, **104,** 107, **114, 118, 201, 202, 203, 211, 221, 231**
CHEM: 100/H100, **114, 201, 202, 206/H206, 207/H207, 255, 281, 282**
GEOG: 101 + 101L, 120
GEOL: 101, 102, 103, 110
MATH: 104, **105/H105, 119**, **120/H120, 132, 226, 227, 228, 231, 270**
OCEA: 101
PHYS: 100, 201, 202, 203, 204, 221, 222
PSCI: 101

ARTS & HUMANITIES: 4903.00
These courses emphasize the study of cultural, literary, and humanistic activities and artistic expression. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and to the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

ANTH: 106
ART: 101, 102, 103, **104, 105, 106, 107, 108, 109, 112, 113, 120, 122, 125, 150**
CMST: 105 (Intercultural)
ENGL: 102/H102, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 235, 240, 241, 245, 246, 247
FOREIGN LANGUAGES: CMST (ASL) 122, 123, 124, 125; FREN: 101, 102, 103, 104, GERM: 101, 102, 103, 104, LATIN: 101, 102, SPAN: 101, 102, 103, 104
HIST: 103, 104, 115, 117/H117, 118/H118, 130, 131, 153, 155, 157
MUSIC: 100, 101, 102, 103, 115, 117, 118, 131, 202, 204
PE: 103 (Dance)
PHIL: 101, 108, 114*, 117, 120, 121
POLS: 114*
RLST: 101, 105, 106, 110, 111, 115, 117
TA: 101, 102, 104, 107, 110, **116*,** 117

SOCIAL & BEHAVIORAL SCIENCES: 4903.30
These courses emphasize the perspectives, concepts, theories and methodologies of the social and behavioral sciences. Students will learn about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate.

AGNR: 175
AJ: 101
ANTH: 101, 102, 103, 105, 106
CHDV: 100, 106
CMST: 105 (Intercultural)
ECON: 101, 102
GEOG: 101, 102, 103, 104
HIST: 103, 104, 115, 117/H117, 118/H118, 130, 131, 153, 155, 157
PHIL: 114*****
POLS: 101, 102/H102, 103, **110/H110**, **111, 112, 113**, 114*
PSYC: 101, H101, 103, 110/H110, 111, 116, 121, 130, 204, 213
RLST: 105, 106, 110, 113, 115
SOC: 101, 102, 103, **107**

*Cross-listed courses: ENGL 116 is the same as TA 116; PHIL 114 is the same as POLS 114

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 any of the following courses:

- **MATHEMATICS**
  ELCT 57, 58, 59, 60
  MATH 104, 105/H105, 119, 120/H120, 129, 132, 226/H226, 227/H227, 228/H228, 231, 270

- **LIFE SCIENCES**
  ANTH 101, 101L
  BIOL 70, 100/H100, 104, 107, 113, 114, 118, 120, 126, 127, 128, 129, 149, 201, 202, 203, 211, 215, 221, 231, 232
  HLTH 102

- **PHYSICAL SCIENCES**
  ASTR 101
  CHEM 100/H100, 114, 120*, 128, 129, 201, 202, 206/H206, 207/H207, 255, 281, 282
  GEOG 101, 101L, 103
  GEOL 101, 102, 103, 109, 110, 112, 128, 129
  OCEA 101
  PSCI 101, 128
  PHYS 100, 128, 129, 201, 202, 203, 204, 221, 222
  RMGT 120*

Cross-listed classes: CHEM 120 and RMGT 120 are the same class.

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. To explore a bachelor's degree in these fields, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

MATHEMATICS

Mathematics is a rapidly expanding, dynamic discipline which has contributed to recent advances in astronomy, biology, chemistry, engineering, medicine and physics. Mathematics is truly becoming the necessary language of a wide spectrum of knowledge.

The mathematics program is designed to accept students at many levels of mathematical maturity and enable them to gain the mathematical knowledge necessary for them to achieve their goals.

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
Bob Carlson
Mary Lynn Doan
Joe Estephan
Patrick Malone
Pat Mauch
Arda Melkonian
Dave Moser
Said Ngobi
Jeff Redona
Jeff Ridge
Stephen Toner
Anh Weis

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificates awarded.

Associate Degree
Mathematics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science; see Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MATH 138 (Cooperative Education) may be used for elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Mathematics major
- **University of California, Riverside**
  Mathematics major

MATHEMATICS COURSES

MATH 10 BASIC MATHEMATICS SKILLS
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (No prerequisite)

This course covers the basic operations applied to whole numbers, fractions (including mixed numbers) and decimals. Prime factorization, least common multiple, ratio and proportion, similar triangles, averages; graphs and tables, square roots, the Pythagorean theorem, measurement, operations on signed-numbers and solutions of simple linear equations are also covered.

MATH 12 PRE-ALGEBRA
Units: 3.0 - 48-54 hours lecture. This course will not apply to the Associate Degree. (Prerequisite: MATH 10 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course reviews fractions, decimals and integers with a strong emphasis on solving equations and problem solving in order to prepare students for Introductory Algebra. Ratios and proportions are also covered, as well as an introduction to graphing linear equations, working with polynomials, and factoring.

MATH 30 MATHEMATICS FOR HEALTH SCIENCES
Units: 4.0 - 64-72 hours lecture. This course will not apply to the Associate Degree. (No prerequisite.)

Review of fractions, decimals, whole numbers and percentages. Introduction to the apothecary, metric and household systems of measurement; applications involving oral, intravenous and intramuscular medication administration; system conversions; respiratory care calculations.

MATH 50 ELEMENTARY ALGEBRA
Units: 4.0 - 64-72 hours lecture. (Prerequisite: MATH 10 or MATH 12 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course covers a review of arithmetic operations with whole, decimal, fractional and signed numbers, exponential notations, percentages, and order of operations. Algebraic expressions, solving and graphing linear equations and inequalities, polynomial operations and polynomial factoring, rational and radical expressions and equations, quadratic equations and solutions to quadratic equations are also covered.

MATH 50L LABORATORY-ENHANCED STUDY FOR MATH 50
Units: 1.0 - 8-9 hours lecture and 16-18 hours individualized instruction. (Prerequisites: completion of MATH 10 with a 'C' or better, or Assessment Placement, and referral by Student Support Services. Pass/No Pass)

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.

MATH 60 GEOMETRY
Units: 4.0 -64-72 hours lecture. (Prerequisite: MATH 50 and ENGL 50 with a grade of 'C' or better, or eligibility as determined by VVC assessment. Grade Option)

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.

MATH 70 MATH EXPERIENCES FOR CHILDREN K-8
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite)

This course emphasizes the development of explorations in mathematics appropriate for the school-age child. The course covers the sequence of topic acquisition, motivating concepts, disguising repetition, project development, group appropriate activities, evaluation techniques and the building of mathematical materials that support discovery.

MATH 71 GUIDED DISCOVERIES PRACTICUM
Units: 2.0 -96-108 hours laboratory. (No prerequisite. Grade Option) This course may be taken four times.

This course is a laboratory course that provides opportunity to those interested in teaching elementary school, or being a teacher's aide in mathematics, to gain experience preparing and presenting guided experiences for students of elementary age.

MATH 90 INTERMEDIATE ALGEBRA
Units: 4.0 - 64-72 hours lecture. (Prerequisite: MATH 50 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course is designed to serve as a preparation for the study of College Algebra, Statistics, Trigonometry and other college mathematics courses. Topics include a review of the real number system, an introduction to imaginary and complex numbers, the solution of first degree, quadratic and systems of equations, polynomials, rational expressions, exponents and radicals, graphs of functions (both linear and nonlinear) and of relations, and exponential and logarithmic functions.

MATH 104 TRIGONOMETRY
Units: 4.0 - 64-72 hours lecture. CSU. (Prerequisite: MATH 90 with a grade of 'C' or better.)

Topics for this preparatory course for calculus include trigonometric functions and equations, solutions of both right and oblique triangles, trigonometric forms of complex numbers and De Moivre's Theorem. Course content also includes verification of trigonometric identities, inverse trigonometric functions, half and multiple angles, vectors and their applications, parametric equations, polar coordinates and polar equations.

MATH 105 COLLEGE ALGEBRA
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (Prerequisite: MATH 90 with a grade of 'C' or better or eligibility as determined by VVC assessment.).

The course offers a review of real numbers, real number exponents, and factoring polynomials. The course also covers equations and inequalities, solutions to systems of equations and inequalities, solutions to equations and inequalities involving absolute value, graphing relations and functions, matrices, determinants of matrices, and matrix algebra. Complex numbers, the real and complex zeros of polynomials, the zeros of exponential, rational and radical functions, the conic sections, sequences, mathematical induction and the binomial theorem are also covered.

MATH H105 HONORS COLLEGE ALGEBRA
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (Prerequisite: MATH 90 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

This course covers all the topics of the regular MATH 105 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.

MATH 119 FINITE MATHEMATICS
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: MATH 90 with a grade of 'C' or better.)

This course covers linear functions and modeling, matrix operations (addition, subtraction, multiplication and inverses), systems of linear equations, introductory linear programming, mathematics of finance, counting techniques. Probability theory, descriptive statistics and distributions, and Markov chains are also covered.

MATH 120 INTRODUCTION TO STATISTICS
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: MATH 90 with a grade of 'C' or better.)

This course covers basic statistical techniques including design and analysis for both parametric and non-parametric data. Descriptive statistics included are measures of central tendency and measures of dispersion. Graphical techniques of illustrating the data

are covered. Probability and its application to inferential procedures are covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance and regression. Applications are drawn from a variety of fields.

MATH H120 HONORS INTRODUCTION TO STATISTICS
Units: 4.0 - 64-72 hours lecture. CSU, UC. (Prerequisite: MATH 90 with a grade of 'C' or better.)

Basic statistical techniques, design and analysis for both parametric and non-parametric data are included. Descriptive statistics are included. Graphing techniques of illustrating the data are covered. Probability is covered. Inferential statistics included are estimation and hypothesis testing, chi-square, analysis of variance, and regression. Applications are drawn from a variety of fields. In addition, the Honors component will include the design of surveys, probability testing, and a research project.

MATH 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

MATH 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

MATH 132 THE IDEAS OF MATH
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: MATH 90 with a grade of 'C' or better or eligibility as determined by VVC assessment.)

Sets and their application to permutations, combinations, binomial theorem, correspondence, countability, finite probability measures, and expectation with optional topics in geometry (Euclidean and non-Euclidean, tessellations and fractals) or beginning calculus (derivative and antiderivative of simple polynomial functions.

MATH 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

MATH 216 BUSINESS CALCULUS
Units: 4.0 - 64-72 hours lecture. CSU. (Prerequisite: MATH 105 or MATH H105 or MATH 119.)

This course is designed for students majoring in Business and Economics. Topics covered include functions and relations, limits and continuity, differentiation, applications of differentiation, integration, and applications of integration. NOTE: MATH 216 - Business Calculus and MATH 226 - Analytic Geometry and Calculus are not the same class.

MATH 226 ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC.
(Prerequisites: Both MATH 104 and MATH 105 or MATH H105 with a grade of 'C' or better.)

This class offers an introduction to the calculus of single variables. Topics covered include limits, using limits of functions to determine continuity, finding derivatives and integrals of functions, basic properties of derivatives and integrals, the relationship between derivatives and integrals as given by the Fundamental Theorem of Calculus, and applications.

MATH H226 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC. (UC Credit Limitation) (Prerequisite: MATH 104 and MATH 105 or MATH H105 completed with a grade of 'C' or better.)

As an introduction to the calculus of single variables, students will develop the concept of limit, apply limits to functions to determine if they are continuous, find the derivative and determine integrals. Students will study the properties of the derivative and integral, their relationship to each other given by the Fundamental Theorem of Calculus. In addition, the honors component will include reading proofs and writing simple proofs.

MATH 227 ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC. (Prerequisite: MATH 226 or MATH H226 with a grade of 'C' or better.)

This class covers the calculus of logarithmic, exponential trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations and polar coordinates.

MATH H227 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC (UC credit limitation) (Prerequisite: MATH 226 or MATH H226 with a grade of 'C' or better.)

The calculus of logarithmic, exponential, trigonometric and hyperbolic functions, integration techniques, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, and polar coordinates. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs and applying techniques learned to real-life problems.

MATH 228 ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC. (Prerequisite: MATH 227 or MATH H227 with a grade of 'C' or better.)

This course covers vectors and the geometry of space, vector-valued functions, the calculus of functions as

several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem and applications.

MATH H228 HONORS ANALYTIC GEOMETRY AND CALCULUS
Units: 5.0 - 80-90 hours lecture. CSU, UC (Prerequisite: Enrollment in Honors course requires acceptance into the Honors Program or prior approval from the instructor; MATH 227 or MATH H227 with a grade of "C" or better.)

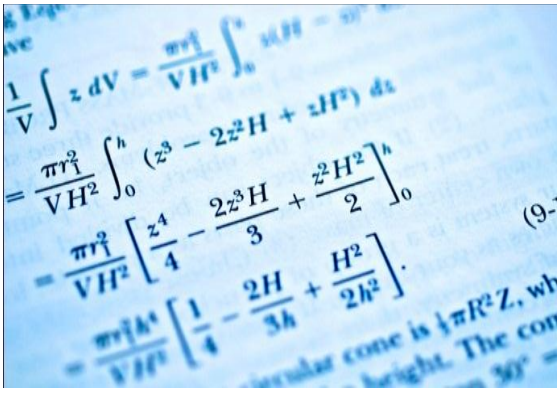
Vectors and the geometry of space, vector-valued functions, the calculus of functions of several variables, multiple integration, Green's Theorem, divergence theorem, Stoke's Theorem, and applications. In addition, the honors component will include reading proofs, writing complete proofs from sketches of proofs and apply techniques learned to real-life problems.

MATH 231 LINEAR ALGEBRA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: MATH 105 with a grade of 'C' or better. Recommended preparation: MATH 226 or MATH H226 with a grade of 'C' or better.)

An introduction to linear algebra that compliments advanced courses in calculus. Topics include systems of linear equations, matrix operations, determinants, vectors and vector spaces, eigenvalues and eigenvectors and linear transformations. With orthogonality, inner product spaces and numerical methods if time permits.

MATH 270 DIFFERENTIAL EQUATIONS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: MATH 227 or MATH H227 with a grade of 'C' or better)

This course covers elementary differential equations, solutions of first order equations, linear equations with constant coefficients, simultaneous linear systems, series solutions, the Laplace transform, and applications to physics and engineering.



MEDIA ARTS

Digital Animation has rapidly become one of the fastest growing careers within the computer graphics industry. Victor Valley College's Media Arts courses are designed for individuals seeking training in advanced techniques and procedures currently used in today's workplace. Designed for both beginning and advanced students, program curriculum is geared toward individuals interested in creating video games, television commercials, product or architectural visualizations, animated logos, 3D website graphics or film-based special effects. Learning essential principles and techniques for creating professional quality work, students are immersed in simulated problem-solving situations similar to those encountered in real world production environments. Students successfully completing the program courses will possess entry-level skills that apply to a wide variety of exciting career opportunities. Three different program certificates are currently offered. The primary software package used in all Media Arts Computer Animation classes is Autodesk Softimage. Animation classes are also offered through the Computer Integrated Design and Graphics Department.

Career Opportunities
3D Modeler
Texture Artist/Painter
Lighting Specialist
Character Designer
Character Animator
Special F/X Animator
Game Level Designer
Storyboard Artist
Graphic Designer

Degrees and Certificate Programs
Digital Animation Technician I - SoftImage Certificate
Digital Animation Technician I - 3ds Max Certificate
Digital Animation Artist Certificate

Certificate Programs

DIGITAL ANIMATION TECHNICIAN I SOFTIMAGE CERTIFICATE

Units Required: 9.0

The SoftImage certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. Students will study a variety of topics, including how to model 3D objects, creation of a realistic material, the art of camera and lighting techniques, and an introduction to advanced keyframing. In addition to completing several animation projects, students learn about both the history of Animation and the traditional principles involved in making an individual's work look both realistic and believable.

All of the following must be completed with a grade of "C" or better.

MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage	3.0
MERT 52	Digital Character Animation	3.0

DIGITAL ANIMATION TECHNICIAN I 3DS MAX CERTIFICATE

Units Required: 9.0

The 3ds Max certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. The courses taken to complete the certificate provide students an opportunity to learn a variety of topics, including how to model 3D objects, how to create realistic textures and materials, the art of camera and lighting techniques, and a variety of keyframing solutions to bring their ideas to life. In addition to completing both individual and group projects, students also delve into the traditional principles of animation that serve to heighten the level of realism and believability of an individual's work.

All of the following must be completed with a grade of "C" or better.

CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

Units Required: 15.0

The Digital Animation Artist certificate is designed to expand an individual's expertise in 3D Animation by requiring additional training in traditional art principles and techniques. Employers many times view an animator who possesses the ability to both draw and more thoroughly understand concepts and practices specific to traditional art painting as more well-rounded and work-ready. By earning the Digital Animation Artist certificate, students will better position themselves for employment opportunities in this fast-paced and competitive field. An Adobe Photoshop course specific to 3D Animation applications is also required to earn a certificate.

Complete the requirements listed in both Group I and Group II

GROUP I - Animation Track
Choose between software package options 1 or 2.

All of the following must be completed with a grade of "C" or better.

Option 1: 3ds Max

CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
MERT 56	Photoshop for Animators	3.0

Option 2: SoftImage

MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage	3.0
MERT 52	Digital Character Animation	3.0
MERT 56	Photoshop for Animators	3.0

GROUP II - Art Track
Choose any ONE of the following courses.

Must be completed with a grade of "C" or better.

ART 101	Survey of Art History	3.0
ART 104	Film as an Art Form	3.0
ART 112	Design I	3.0
ART 113	Design II	3.0
ART 122	Introduction to Life Drawing	3.0
ART 124	Anatomy for Life Drawing	3.0
ART 125	Drawing I	3.0
ART 141	Sculpture I	3.0

MEDIA ARTS COURSES

MERT 50 PRINCIPLES OF ANIMATION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. Recommended preparation: ART 125, ART 133, or CIS 101. Grade Option) This course may be taken four times.

Students will learn the basics of 3D modeling, how to create and apply realistic textures, lighting principles and techniques, camera types and their appropriate usage, and fundamental keyframing procedures. Other topics to be covered include storyboards, the traditional principles of animation, current industry trends and issues pertaining to rendering output for different mediums (film, video, Internet, etc.)

MERT 51 ADVANCED MATERIALS, LIGHTING AND RENDERING WITH XSI
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: MERT 50. Grade Option) This course may be taken four times.

This course covers advanced material techniques using the rendertree, rendering with Mental Ray and advanced lighting techniques. Students will complete a combination of exercises, individual and group projects. Repetition of this course provides the opportunity for increased skill development.

MERT 52 DIGITAL CHARACTER ANIMATION WITH SOFTIMAGE XSI
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: MERT 50. Grade Option) This course may be taken four times.

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. Repetition of this course provides the opportunity for increased skill development.

MERT 53 ADVANCED ANIMATION/ DEMO REELS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: MERT 52. Grade Option) This course may be taken four times.

This course is an in depth look at creating an animation production with a final reel being the goal of the class. The course covers camera techniques, staging, modeling, texturing, character development, story development, plot development, storyboarding, titling, and final production using industry standards as guidelines from start to finish. Repetition of this course provides the opportunity for increased skill development.

MERT 56 PHOTOSHOP FOR ANIMATORS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. Grade Option) This course may be taken four times.

Students will learn the concepts and procedures required for creating high quality texture maps and imagery for use in 3D computer animation. Topics will include basic and advanced editing techniques, managing tone and color, layer management, optimi-zation strategies and the use of filters. Compositing techniques will be addressed in detail. Relevant issues dealing with the pre-production process, and industry trends and analysis will also be discussed.

MERT 74 DIGITAL VIDEO PRODUCTION
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. Recommended preparation: ART 133, CIS 101. Grade Option)

This course introduces digital video production techniques. Course topics include the operation of digital camcorders, lighting, sound equipment and post production digital editing suites, and the principles and aesthetics of film and video editing.

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 may also be offered as an option under Kinesiology, Exercise Science, or Physical Education majors at most universities. The average GPA for students enrolling in these programs is a 3.0 GPA or better.

Common lower division courses students should complete prior to transferring to a university as an Athletic Training, Kinesiology, Exercise Science, or Physical Education major:

BIOL 211, 231; CHEM 201; PHYS 221; MATH 120; PSYC 101

For more information on athletic training or kinesiology programs, visit: www.assist.org or meet with a counselor.

Pre-Chiropractic
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. Prior to enrolling, applicants must have completed a minimum of 90 semester units, applicable to a bachelor's degree, with a minimum cumulative GPA of a 2.5 on a 4.0 scale.

Common lower division course requirements for chiropractic medicine:

BIOL 201, 202; CHEM 201, 202, 281, 282; PHYS 221, 222; ENGL 101, 102 or 104; PSYC 101

Highly recommended courses: BIOL 221, 231; PHYS 201; CMST 109; MATH 105

15 additional semester units from Social Sciences and/or Humanities

The following four schools are the only California colleges accredited by American Chiropractic Association:

- Cleveland Chiropractic College, Los Angeles
  www.clevelandchiropractic.edu

- Life Chiropractic College-West, San Lorenzo
  www.lifewest.edu/
- Southern California University of Health Sciences
  (formerly: Los Angeles College of Chiropractic
  www.scuhs.edu
- Palmer College of Chiropractic, Sunnyvale
  www.palmer.edu

For more information on chiropractic colleges, visit:
www.chiropractic.org

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.

There are multiple California community colleges that offer an Associate of Science or Arts degree in Dental Hygiene. For more information on accredited Dental Hygiene community college programs, visit: http://www.cdha.org/.

Before admission into the Dental Hygiene program 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 prerequisite coursework with a cumulative GPA of 3.0 or better.

Common lower division course requirements for most Dental Hygiene programs:

BIOL 201, 211, 221, 231; CHEM 201, 202; ENGL 101, 102 or 104; PSYCH 101; SOC 101; CMST 109

Other courses recommended to complete 60 required units: CHEM 120, 281, Math 120.

The following four California universities offer a bachelor's degree in Dental Hygiene and are accredited by the Commission on Dental Accreditation (CODA):

- Loma Linda University
  http://www.llu.edu/dentistry/admissions/index.page
- University of Southern California
  http://dentistry.usc.edu/education.aspx
- University of the Pacific
  http://www.pacific.edu/
- West Coast University
  http://www.westcoastuniversity.edu/

A handout with all transfer requirements for a B.S. degree in Dental Hygiene from Loma Linda University is available in Counseling or can be obtained from the website above. An appointment is not necessary to receive a copy of these requirements.

For more information on Dental Hygiene programs, visit:
www.adha.org

Pre-Dentistry

Dentists provide comprehensive dental treatment to patients including oral and maxillofacial surgery, endodontics, orthodontics, and restorative processes.

Because most of the applicants being admitted to dental schools possess a bachelor's degree, students are advised to integrate the dental school requirements into a program that will lead to a bachelor's degree in a major of their choice. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to medical school. There are Dental Schools which consider 90 semester units (60 units lower division and 30 units of upper division coursework) with a very competitive grade point average (GPA). The average GPA for accepted students to U.S. dental schools is a 3.5. In addition a score sufficiently high on the Dental Admission Test (DAT) (www.adea.org) is required along with course prerequisites.

Common lower division course requirements for dentistry schools:

BIOL 201, 202, 221; CHEM 201, 202, 206+207 or 281+282 (recommended); ENGL 101, 102 or 104; MATH 226; PHYS 221, 222; PSYC 101; CMST 109

11 units in Social Sciences/Humanities/Foreign Language. Courses from the following are highly recommended: Algebra/Calculus/Statistics, Accounting/Economics, Technical Writing, Sociology/Anthropology, Business Management, and Ceramics/Sculpture.

The following five schools offer a Doctor of Dental Surgery (DDS) and are the only California universities accredited by the Commission on Dental Accreditation (CODA):

- Loma Linda University
  www.llu.edu/llu/dentistry
- University of California, Los Angeles (UCLA)
  www.uclasod.dent.ucla.edu/
- University of the Pacific
  www.dental.pacific.edu/

- University of California, San Francisco (UCSF)
  www.dentistry/ucsf/edu/

- University of Southern California (USC)
  www.usc.edu/hsc/dental

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.

For more information on dentistry schools, visit: www.ada.org.

Pre-Medicine (MD) and Pre-Osteopathic Medicine (OD)
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, letters of recommendation, sufficiently high scores on the Medical College Admissions Test (MCAT), and GPA. Most students who are admitted into medical school have a bachelor's degree; therefore, a bachelor's degree is highly recommended. Since requirements for medical school places emphasis on biology and chemistry, most students choose to pursue a bachelor's degree in biology or chemistry. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to medical schools. The average GPA for accepted students to U.S. medical schools is a 3.6.

A handout entitled "Premedical Course Preparation for California Medical School Programs" is available from the VVC Counseling department. Students should also consult school catalogs, websites, and the ***Medical School Admission Requirements: U.S. and Canada, (MSAR)*** published by the Association of American Medical Colleges (AAMC) for specific requirements. A copy of the MSAR is available for purchase at www.aamc.org.

Common lower division course requirements for most medical schools:

BIOL 201, 202; CHEM 201, 202, 281, 282; ENGL 101, 102 or 104; MATH 226, 227; PHYS 221, 222

Highly recommended courses: CHEM 206, 207; CIS 101; SPAN 101,102; PSYC 101 or SOC 101; CMST 106 or 109

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 offer a Doctor of Medicine (MD) degree and are accredited by the Liaison Committee on Medical Education (LCME) of the American Medical Association (AMA):

- Loma Linda University
  www.llu.edu/llu/medicine

- Stanford University
  www.med.stanford.edu

- University of California
  Davis: www.ucdmc.ucdavis.edu/medschool/
  Irvine: www.med.uci.edu
  Los Angeles: www.medstudent.ucla.edu
  San Diego: http://medicine.ucsd.edu
  San Francisco: www.medschool.ucsf.edu

- University of Southern California
  www.usc.edu/schools/medicine

- Western Univ. of Health Sciences
  www.westernu.edu

For more information on medical schools, visit: www.aamc.org

Nursing – see separate section on Nursing

Occupational Therapy
Occupational Therapists (OT) 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 every day (occupational) activities as a means of helping those people achieve independence, focusing on critical daily tasks ranging from dressing to employment tasks. Most OT programs require the Graduate Record Examination (GRE) and a minimum cumulative GPA of a 3.0 or better.

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

Common lower division course requirements for most Occupational Therapy programs:

BIOL 211, 231; PSYC 101, 110, 213; MATH 120
Highly recommended courses: ENGL 101, 102; SOC 101 or ANTH 102; CMST 109

Additional courses in Humanities/Social Sciences may be required.

The following schools award a bachelor's degree in Occupational Therapy:

- CSU Dominguez Hills
  www.csudh.edu
- Loma Linda University
  www.llu.edu
- San Jose State University
  www.sjsu.edu/occupationaltherapy
- University of Southern California
  http://ot.usc.edu/admissions/bs-to-ma/

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

For more information on Occupational Therapy programs, visit: www.aota.org

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. All colleges require a minimum GPA of 2.0 or better to apply to their COTA programs. Competitive applicants have cumulative GPAs of 2.5 or better.

Common lower division course requirements for most Occupational Therapy Assistant programs:

BIOL 211, 231

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

- Santa Ana Community College
  www.sac.edu
- Grossmont Community College
  www.grossmont.edu
- Sacramento City College
  www.scc.losrios.edu

Pre-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.

Entrance into the Doctor of Optometry degree completion of a minimum of 90 units of which 20 must be from a four-year university.

Because admission has become increasingly more difficult, having completed the equivalent of a bachelor's degree is now imperative for the two California Schools of Optometry. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to optometry schools. Besides the bachelor's degree being important, a high score on the Optometry Admission Test (OAT) and a high GPA is recommended for preliminary screening. The average cumulative GPA for accepted students to U.S. optometry schools ranges from a 3.0 to 3.7.

Common lower division course requirements for most schools of optometry:

BIOL 201, 202, 221; CHEM 201, 202, 206 or 281; ENGL 101, 102 or 104; MATH 120, 226; PHYS 221, 222; PSYC 101, 110 or PSYC 204 or PSYC 213

University of California, Berkeley also requires the additional courses: CHEM 282; MATH 227; ENGL 245 or ENGL 246

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

- Southern California College of Optometry, Fullerton
  www.scco.edu
- University of California, Berkeley
  http://optometry.berkeley.edu/

For more information on schools of optometry, visit: www.opted.org

Pre-Osteopathic Medicine (also see 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.

While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to osteopathic medical school. 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, a high score on the Medical College Admissions Test (MCAT), and a high GPA. The average GPA for accepted students to U.S. osteopathic medical schools is a 3.35.

Common lower division course requirements for most osteopathic medical schools:

BIOL 201, 202; CHEM 201, 202, 281, 282; ENGL 101, l02 or 104; PHYS 221, 222; MATH 226, 227

Highly recommended courses: BIOL 221; MATH 120.

Courses in the Social Sciences, Humanities, Languages, and computer skills are also recommended: PSYC 101 or SOC 101 or ANTH 102; SPAN 101, 102; CIS 101; PHIL 101

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

- Western University of Health Science
  www.westernu.edu
- Touro University College of Osteopathic Medicine-California
  http://www.tu.edu/

For more information on osteopathic medical programs, visit: www.aacom.org.

Pre-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.

Admission to schools of pharmacy is highly competitive. Schools of Pharmacy offering the Doctor of Pharmacy generally require the completion of a minimum of 60 semester units of pre-pharmacy coursework. Most students who are admitted into pharmacy schools have a bachelor's degree; therefore, a bachelor's degree is highly recommended. Since requirements for pharmacy school places emphasis on biology and chemistry, most students choose to pursue a bachelor's degree in biology or chemistry. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to medical school. The average GPA for accepted students to U.S. pharmacy schools ranges from 3.2 to 3.7.

Common lower division course requirements for most pharmacy schools:

BIOL 201, 202, 211, 231; CHEM 201, 202, 281, 282; ECON 101 or 102; ENGL 101, 102 or 104; MATH 226, 227; PHYS 221, 222; PSYC 101 or SOC 101 or ANTH 102, CMST 109

Highly recommended courses: BIO 221; CIS 101, Foreign Language.

Depending on the school, additional courses in Humanities/Fine Arts (6-12 units) and Social/Behavioral Sciences (6-12 units) are required.

The following California colleges offer Doctor of Pharmacy (Pharm.D.) degrees:

- University of the Pacific
  www.pacific.edu/pharmacy
- University of Southern California (USC)
  www.usc.edu/schools/pharmacy/pharmd/
- University of California, San Francisco
  http://pharmacy.ucsf.edu
- Western University of Health Sciences
  www.westernu.edu/pharmacy/pharmd_about.xml
- Loma Linda University
  http://www.llu.edu/pharmacy/

For more information on schools of pharmacy, visit: www.aacp.org

Pre-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 program. All accredited entry level physical therapy programs are at the master's level (MS or MPT) or doctorate level (DPT). Most universities offer the Doctorate of Physical Therapy (DPT) degree. Most programs require a student to have at least a 3.0 cumulative and prerequisite GPA, although the average GPA for accepted students may be higher. A bachelor's degree in a related field such as Biology, Kinesiology, and Athletic Training is strongly recommended. In addition, sufficiently high scores on the Graduate Record Examination (GRE), strong letters of recommendation, and paid or volunteer experience in a physical therapy setting are important in the selection process.

Common lower division course requirements for most Physical Therapy programs:

BIOL 201, 202, 211, 231; CHEM 201, 202; ENGL 101, 102 or 104; MATH 120 or 104 or 226 (Most required Math 120 - Statistics); PHYS 221, 222; PSYC 101, 110

Highly recommended course: CHEM 281

The following California colleges offer DPT programs accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE):

- California State University
  Fresno: http://www.csufresno.edu/gradstudies/
  San Francisco: http://www.sfsu.edu/
- Azusa Pacific University
  www.apu.edu
- Chapman University
  http://www.chapman.edu/CS/pt/
- Loma Linda University
  www.llu.edu

- Mount St. Mary's College
  http://www.msmc.la.edu/
- University of California, San Francisco
  http://www.ucsf.edu/
- University of the Pacific
  www.pacific.edu
- University of Southern California (USC)
  http://pt.usc.edu/
- Western Univ. of Health Sciences
  www.westernu.edu

The following California college offer M.S./MPT programs accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE):

- California State University
  Long Beach: www.csulb.edu
  Northridge: www.csun.edu
  Sacramento: http://www.hhs.csus.edu/PT/

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.

For more information on physical therapy, visit: www.apta.org.

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. Most colleges require a GPA of 2.5 or better.

Common lower division course requirements for most Physical Therapy Assistant programs:

BIOL 211, 231; ENGL 101; MATH 90

Additional general education and major courses are required. Please check each college's catalogue or website for specific course requirements.

The following California colleges offer associate degrees in Physical Therapist Assistant:

- Loma Linda University
  http://www.llu.edu/pages/sahp/transfer/documents/vvc.pdf
- Cerritos Community College
  www.cerritos.edu/pta
- San Diego Mesa Community College
  www.sdmesa.edu
- Sacramento City College
  www.scc.losrios.edu
- Ohlone Community College
  www.ohlone.edu
- College of the Sequoias
  www.cos.edu

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.

Pre-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.

The usual program requires 24 months to complete. Most PA students earn a bachelor's degree, although an increasing number of PA programs award master's degrees upon completion of the program.

Upon graduation from an accredited PA program, students take an examination given by the National Commission on Certification of Physician Assistants (NCCPA) and achieve national certification by passing the exam. Certified Physician Assistants (PA-C) must be retested every six years. Admission into the PA programs requires a minimum of 60 semester units and most require a GPA of 3.0 or better. Some universities require completion of the Medical College Admissions Test (MCAT) or the Graduate Record Examination (GRE).

Common lower division course requirements for most Physician Assistant programs:

BIOL 211, 221, 231; CHEM 100, 201+202 or 281+282; ENGL 101, 102 or 104; MATH 105; PSYC 101; SOC 101 or ANTH 102; 9-12 units from humanities

Highly recommended courses: BIOL 201, 202; MATH 120; ALDH 139; CIS 101; SPAN 101, 102; CMST 109

The following universities offer master's programs in Physician Assistant (PA):

- Charles Drew University, Los Angeles
  http://www.cdrewu.edu/

- Loma Linda University
  www.llu.edu
- Stanford University
  http://pcap.stanford.edu/
- University of California, Davis
  http://www.ucdmc.ucdavis.edu/
- University of Southern California
  www.usc.edu
- Western Univ. of Health Sciences
  http://prospective.westernu.edu/

Because the requirements for each program vary slightly, students who are serious about pursuing a career as a physician assistant should consult with the catalog or website of each college/university for which they plan to apply.

For more information on Physician Assistant programs, visit: www.aapa.org

Pre-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.
Students must complete a minimum of 60 units before transfer with a GPA of 3.0 or better, take the Medical College Admissions Test (MCAT), and meet the following lower division course requirements for transfer:

California College of Podiatric Medicine, San Francisco
Doctor of Podiatric Medicine program.

BIOL 201, 202; CHEM 201, 202, 281, 282; ENGL 101, 102 or 104; PHYS 221, 222

Highly recommended courses: BIOL 211, 221, 231
12 elective units in Humanities/Social Sciences

For more information on Podiatry programs, visit:
http://www.podiatrists.org/

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 are highly encouraged to complete the following courses before transfer into the below college/university:

Chaffey College
A.S. Radiologic Technology
ALDH 139 , BIOL 211, CHEM 100 or PHYS 100, ENGL 101 and ENGL 102, MATH 90, PSY 101 or SOC 101, CMST 109, and CIS 101.
(All courses must be completed with a grade of C or better).

Loma Linda University
A.S. Medical Radiography
ALDH 139, BIOL 211, BIOL 231, CHEM 100 or PHYS 100, ENGL 101 AND ENGL 102, MATH 90, PSYC 101 or SOC 101, CMST 109, CIS 101 or High School Computer. Elective units to complete course requirements may be necessary. (All courses must be completed with a grade of C or better).

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. An appointment is not necessary to receive a copy of these requirements.

For more information on Radiologic Technology, visit:
www.asrt.org.

Speech-Language Pathology and Audiology/ Communicative Disorders

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:

- Biola University
  http://academics.biola.edu/communication-disorders/
- California State University (several campuses)
  www.assist.org
- Loma Linda University
  www.llu.edu

Check universities' catalogs or websites for specific course requirements.

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, specific courses should be completed prior to transfer.

Common lower division course requirements for most Sports Medicine programs:

BIOL 211, 231; CHEM 201, 202; ENGL 101, 102; MATH 226; PHYS 221, 222

Complete general education requirements of specific university including social sciences and humanities.

The following colleges offer a bachelor's or master's degree in Sports Medicine:

- Pepperdine University
  www.pepperdine.edu
- California Lutheran University
  www.callutheran.edu
- Vanguard University
  www.vanguard.edu

Pre-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).

Veterinary medicine is a highly competitive program. Acceptance to this program is based on GPA, scores on the Graduate Record Examination (GRE) or Medical College Admissions Test (MCAT) and any additional examinations, and completion of a minimum of 72 semester units from an accredited college. The average required GPA for U.S. veterinary schools varies by school, from a low 2.5 to a high 3.2. Those who receive offers for admission often have a GPA of 3.5 or better.

As with many specialized medical programs, applicants who have earned a bachelor's degree are highly desirable and more competitive in the admission process. While many successful applicants major in one of the natural sciences, a science major is NOT required for admission to veterinary school.

Common lower division course requirements for most veterinary schools:

BIOL 201, 202, 203; CHEM 201, 202, 281, 282; ENGL 101, 102 or 104; MATH 120; PHYS 221, 222; CMST 109

Highly recommended courses: BIOL 221; CHEM 206 and 207; PSYC 101; SOC 101 or ANTH 102; SPAN 101, 102.

The following California colleges offer programs leading to a Doctor of Veterinary Medicine (D.V.M.)

- University of California, Davis
  http://www.vetmed.ucdavis.edu/studentprograms/
- Western Univ. of Health Sciences
  http://www.westernu.edu/

For more information on veterinary schools, visit:
www.aavmc.org

Important note about programs in the health professions:

In addition to a competitive GPA and a competitive score on specialized entrance examinations, programs in the health professions also seek the following from competitive applicants: strong letters of recommendation, volunteer or paid experience in your specialty of interest, involvement in extracurricular activities, and research (lab) experience.

For assistance, counselors are available at Victor Valley College to help students meet the requirements to health professions schools.

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.

NOTE: Upon completion of ALDH 82 the student may enroll in ALDH 82-C (Clinical). On the first day of ALDH 82-C the student is required to bring to class the following:

1. Students must demonstrate physical health as determined by a history and physical examination.

2. The students must submit a current physical and meet required immunizations, titers, and have a chest X-ray and/or PPD. Also, a current American Heart Association Health Care Provider CPR Certificate, or equivalent, must be obtained and current. Criminal background checks are required in order to comply with the program and clinical agencies' contractual requirements. Per individual facility requirements, random drug testing may also be required.

Career Opportunities
Medical Assistant
Patient Account Representative
Receptionist
Medical Secretary
Medical Records Technician

Faculty
Full Time
Diego Garcia

Degrees and Certificates Awarded
Associate in Science, Medical Assistant
Medical Assistant Certificate

Certificate Program

MEDICAL ASSISTANT CERTIFICATE

Units Required: 23.5

This certificate prepares students for an entry-level position in a physician's office, clinic, or medical records.

ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0
ALDH 82C	Medical Office Procedures/Clinical	5.0
ALDH 91	Basic CPR	0.5
ALDH 139	Medical Terminology	3.0
BET 104	Beginning Word Processing/Typing-Word for Windows A/B/C	3.0
PSYC 110	Developmental Psychology	3.0

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

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

MICROBIOLOGY

See Biology

MUSIC

Music is the study of the language of sound and its effect on the minds and souls of creator, performer and listener. It is one of the few academic disciplines to deal extensively with the development of the creative side of personhood; in that sense it is one of the most wholly "human" of the humanities. The creative problem-solving skills and discipline of music studies prepare students for a wide range of life's activities and pursuits. The Music Department offers a wide range of classes, providing opportunities for transfer music majors, music for general studies students, and the opportunity for student and community musicians of all skill levels to participate in a wide variety performance ensembles.

Career Opportunities
Accompanist
Announcer
Composer/Arranger
Educator
Instrumentalist
Music Publisher
Music Sales Business
Musician
Private Music Teacher
Studio Engineer
Vocalist

Faculty
Full Time
David Graham
Thomas E. Miller

MUSIC

Degrees and Certificates Awarded
Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program
No certificate awarded.

Associate Degree
No associate degree offered with a major in Music. Music courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MUSC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Transfer music majors are required to begin major courses at the freshman level. Music majors will take the following music courses in preparation for transfer to a four-year institution: MUSC 102, 103, 104, 105, 106, 110, 111, 202, 203, 204, 205, 206, 210, 211, and the appropriate applied music studies from MUSC 120-J. In addition, music majors must be enrolled in the appropriate performance ensemble each semester. The Music Department offers periodic workshops for transfer majors to insure that students are aware of the curriculum requirements of transfer institutions and such additional concerns as concert attendance, juries, entrance proficiency exams and scholarship and performance auditions.

To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Music major
- **University of California, Riverside**
  Music major

MUSIC COURSES

MUSC 100 INTRODUCTION TO MUSIC
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course is a general introduction to the art of music, its nature, history, materials and vocabulary. The course examines the historical and contemporary value of music to the individual and society. Consideration will also be given to structural organizations of music composition and the characteristic styles of historical periods and important individuals.

MUSC 101 FUNDAMENTAL OF MUSIC
Units: 3.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

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.

MUSC 102 MUSIC THEORY DIATONIC PRACTICE, PART I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 101 or equivalent information as demonstrated by pretest; concurrent enrollment in MUSC 104)

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

MUSC 103 MUSIC THEORY DIATONIC PRACTICE, PART II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 101 or equivalent information as demonstrated by pretest; concurrent enrollment in MUSC 105)

Continuation of MUSC 102, comprehensive theory musician-ship study centering on basic four-part diatonic harmonic practices. Use of triads in all positions, principles of voice leading, harmonic progression, non-harmonic tones, and melodic construction. Emphasis on written and aural analysis, and creative application of concepts to musical and electronic teaching aids in an interactive classroom/lab environment. Required for those majoring in music and useful to those desiring to write or arrange music for any purpose.

MUSC 104 SIGHT SINGING LABORATORY, LEVEL I
Units: 1.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 101 or equivalent information as demonstrated by pretest; concurrent enrollment in MUSC 105)

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 on computer five quiz levels in each of eight skills to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 102.

MUSC 105 SIGHT SINGING/EAR TRAINING LABORATORY, LEVEL II
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 103) (Pass/No Pass)

Self-paced, competency based, comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 104.

MUSC 110 ELEMENTARY PIANO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (UC credit limitation). (No prerequisite)

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.

MUSC 111 ELEMENTARY PIANO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

This course is a continuation of MUSC 110 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.

MUSC 116 MUSIC IN AMERICA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

A survey of music in American life and culture from colonial times to the present, including both popular and art music styles.

MUSC 117 HISTORY OF JAZZ
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

A survey of jazz from 1900 to the present, including definitions of jazz, African and European heritage, blues, Dixieland, ragtime, boogie woogie, swing, bop, cool, funky, gospel, third stream, free form and fusion. Lecture and structured listening and viewing.

MUSIC 118 SURVEY OF ROCK AND ROLL
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course will discuss the unfolding of rock and roll as a modern musical genre. It will also discuss societal influence on its development as well as its impact on modern society. Other styles of contemporary commercial music will be discussed and analyzed within the general historical scope of this survey.

MUSC 120A APPLIED MUSIC VOICE
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (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.

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.

MUSC 120B APPLIED MUSIC PIANO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (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.

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.

MUSC 120C APPLIED MUSIC GUITAR
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120D APPLIED MUSIC UPPER STRINGS
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120E APPLIED MUSIC LOW STRINGS
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120F APPLIED MUSIC HIGH BRASS
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120G APPLIED MUSIC LOW BRASS
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120H APPLIED MUSIC REEDS
Units: 1.0 - 48-54 hours laboratory. CSU, UC.
(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.

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.

MUSC 120I APPLIED MUSIC WOODWINDS
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (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 Dept..) This course may be taken four times.

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.

MUSC 120J APPLIED MUSIC PERCUSSION
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (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.

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.

MUSC 122 BEGINNING VOICE PRODUCTION
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

Fundamental techniques of proper voice production including healthy use of the voice for speaking and singing. Teaches proper relaxation and support techniques, speech intensification, vocal freedom and resonance, and emotional support for the singing and speaking process. Designed to meet the needs of those who use their voices for solo and/or ensemble singing or in such vocally intense activities as teaching, group leading, sales, coaching, or for those taking courses in speech communication and acting.

MUSC 123 INTERMEDIATE VOICE CLASS
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 122 or equivalent skills, i.e. formal basic instruction in fear control, proper body relaxation, breath support, vocal focus and some experience in solo vocal performance.) This course may be taken four times.

Application of the vocalization techniques of Music 41 to the study of vocal performance. Attention to diction, tone color, song styles and interpretation. Some basic instruction in Italian, French or German diction. Intensive solo performance in a wide range of musical styles. Useful to anyone desiring to continue the development of the singing voice and performance potential. Repetition of the class provides opportunity for increased skills development.

MUSC 124 BEGINNING GUITAR
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No Prerequisite.)

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.

MUSC 125 BEGINNING GUITAR
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

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.

MUSC 126 GUITAR ENSEMBLE
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: Student must audition.) This course may be taken four times.

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.

MUSC 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

MUSC 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

MUSC 130 WOMEN'S CHOIR
Units: 1.0 - 48-54 hours laboratory. CSU, (UC credit pending) (No prerequisite. Pass/No Pass) This course may be taken four times.

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.

MUSC 131 THE COLLEGE SINGERS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (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.

A select chamber choral ensemble of mixed voices to perform at various college and community functions. Repertoire includes significant choral music from all periods of music history, including motets and madrigals, part songs, masses and cantatas with orchestra, 20th century choral songs, and spirituals, vocal jazz and Broadway arrangements. Music is most often performed in the original languages. Emphasis on development of the total choral musicianship skills of each singer. Group may tour out of state or to Europe.

MUSC 132 MASTER ARTS CHORALE
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (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.) (Pass/No Pass) This course may be taken four times.

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.

MUSC 134 MUSICAL THEATRE LAB
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: Demonstrated ability at an acceptable level of proficiency, as evidenced by audition. Grade option) This course may be taken four times.

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.

MUSC 135 BEGINNING BAND
Units: 0.5 - 24-27 hours laboratory. CSU (Prerequisite: Student must audition. Pass/No Pass) This course may be taken four times.

This course will be a study and performance of standard elementary band literature composed for the beginning and intermediate level wind and percussion literature. Proper breathing and phrasing techniques will be emphasized along with specific instrument performance technique.

MUSC 136 COLLEGE SYMPHONIC BAND
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite. Student must audition. Pass/No Pass) This course may be taken four times.

This course will emphasize the performance of standard college wind literature. Proper playing and performance technique will be stressed. Warm-up skills will be developed along with scale studies and rhythmic refinement. At least two public performances will be required.

MUSC 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 Units). CSU

MUSC 139 STUDIO JAZZ BAND
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: Student must audition. Pass/No Pass) This course may be taken four times.

This course provides playing experience in the fields of dance, jazz, rock and popular music. Accurate execution and consistent style will be emphasized. Attention will also be given to improvisation, sight reading, ear training and performance practice skills. Public performances at the college and in the community.

MUSC 140 STUDIO SINGERS
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: Student must audition. Pass/No Pass) This course may be taken four times.

Study and performance of commercial music styles written and arranged for choir in jazz, rock, gospel and popular styles. Development in healthy commercial vocal techniques, sight singing skills, ear training, improvisation and ensemble performance skills will be emphasized. Public performances at college and community concerts.

MUSC 141 JAZZ ROCK COMBO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: Student must audition. Pass/No Pass) This course may be taken four times.

A study and performance of the principles and skills needed for performing in various commercial music styles in small combos. Emphasis on ensemble skills, improvisation, ear training, music theory, stylistic interpretation and performance practices. Public performances at college and community concerts.

MUSC 143 BEGINNING STRING ENSEMBLE
Units: 0.5 - 24-27 hours laboratory. CSU, UC. (Prerequisite: Students must audition for this ensemble. Alternative course is MUSC 137. Pass/No Pass) This course may be taken four times.

This course will be a beginning study and performance of standard string orchestra literature composed for the beginning string player. Proper left hand position (excluding the use of third position), beginning bow techniques, appropriate performance practices will be emphasized.

MUSC 144 PRELUDIUM STRING ENSEMBLE
Units: 0.5 - 24-27 hours laboratory. CSU (Prerequisite: Student must audition for this ensemble. Alternative course is Music 137. Pass/No Pass) This course may be taken four times.

This course will be an intermediate study and performance of standard string orchestra literature composed for the intermediate string player. Proper left hand position (excluding the use of third position), intermediate bow techniques, appropriate performance practices will be emphasized.

MUSC 145 COLLEGE SYMPHONY ORCHESTRA
Units: 0.5 - 24-27 hours laboratory. CSU, UC (Prerequisite: Student must audition.) This course may be taken four times.

This course will be a study and performance of standard full orchestral literature for the beginning and intermediate string, wind and percussion player. Emphasis will be on ensemble skills, ear training and performance practices.

MUSC 147 BRASS CHOIR
Units: 0.5 - 24-27 hours laboratory. CSU, UC (Prerequisite: Student must audition. Pass/No Pass) This course may be taken four times.

This course will explore brass choir literature and performance through the baroque up to the 21st century. Specific technical skills will be addressed including breathing, phrasing, tonguing and ornamentation practices. Public performances are required.

MUSC 202 ADVANCED THEORY CHROMATIC PRACTICE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: Completion of MUSC 102; concurrent enrollment in MUSC 203)

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.

MUSC 203 SIGHT SINGING/EAR TRAINING LABORATORY, LEVEL III
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 105) (Pass/No Pass)

Self-paced, competency based, comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 202.

MUSC 204 ADVANCED THEORY CHROMATIC PRACTICE, PART II
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: Completion of MUSC 202)

Extends the concepts in MUSC 202 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.

MUSC 205 SIGHT SINGING/EAR TRAINING LABORATORY, LEVEL IV
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (Prerequisite: MUSC 203) (Pass/No Pass)

Self-paced comprehensive individualized training in sight singing, developing mastery in rhythmic sight reading and playing, pitch matching and matching notation to inner hearing, and notating rhythmic and melodic dictation. Drill and practice through computer generated exercises using Music Lab software on the student's own computer and practice and testing in the college Music Computer Lab. Additional practice in small group sessions as needed. Student will pass five quiz levels in each of eight skills on the computer to receive credit for the appropriate course section. This course is open to anyone desiring to learn basic practical music reading skills; it is required of students taking Music Theory 204.

MUSC 210 INTERMEDIATE PIANO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

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.

MUSC 211 INTERMEDIATE PIANO
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite)

This course offers the continuation and development of practical keyboard facility from accompaniments, exploration of piano repertory and related stylistic and technical exercises. The study of basic elements of music, including pitch and rhythm recognition, key signatures, intervals, time signatures, major and minor scales, and simple triads. Useful to those wishing to learn to sight read or play an instrument, and for those who wish to write music.

NURSING

The Associate Degree of Science in Nursing is approved by the California Board of Registered Nursing. Graduates are eligible to take the National Council for Licensure Examination for Registered Nursing (NCLEX-RN) and, upon successful completion, become eligible for licensure as a Registered Nurse in the state of California.

California law allows for the denial of Registered Nurse Licensure on the basis of any conviction or action substantially related to nursing practice. The California Board of Registered Nursing requires applicants for licensure with prior convictions to provide proof of rehabilitation before taking the NCLEX-RN that establishes fitness for performing nursing functions. For further clarification, contact the Nursing Department or the California Board of Registered Nursing.

The Associate Degree Nursing Faculty accepts and operates within the framework of the philosophy and mission of Victor Valley College. The conceptual framework is based on the systems and change theory using the Nursing Process. The components of the curriculum are arranged around the client's bio-psycho-social, and cultural/spiritual beliefs. The faculty believes that the student is an adult learner who is expected to take an active role in the learning process.

Separate application must be made into the nursing program. Several admission and progression options are available, including generic, advanced placement, transfer, non-graduate and 30 unit option. Specific information is available in the application packet, the student nurse handbook and from the program director. Please contact the Nursing Department for application dates.

Prerequisites for admission into the nursing program

1. Human Anatomy (equivalent to Victor Valley College BIOL 211), 4-5 units, completed with a grade of "C" or better.
2. Human Physiology (equivalent to Victor Valley College BIOL 231), 4-5 units, completed with a grade of "C" or better.
3. Microbiology (equivalent to Victor Valley College BIOL 221), 5 units, completed with a grade of "C" or better.
4. Program prerequisites must be completed prior to application.

Note that these prerequisites *themselves* have prerequisites: Math 90; Chem 100; and Biol 107 (preferred) or 100.

Enrollment Process
After the prerequisites have been verified and there are still too many students for the spaces available, those accepted into the program will be based on the

enrollment criteria. The enrollment process is based on the recommended Best Practice for Enrollment prepared by the Chancellor's Office of the California Community Colleges, and approved by the Chancellor's Office. Please contact the Nursing Department or Nursing Counselor for further clarification of the enrollment process.

NOTE:

1. Prior to admission to the ADN program, students must demonstrate physical health as determined by a history and physical examination.
2. To continue in the program, the students must submit a current physical and meet required immunizations, titers, and have a chest X-ray and/or PPD. Also, a current American Heart Association Health Care Provider CPR Certificate, or equivalent, must be obtained and current. Current liability insurance and criminal background checks are required in order to comply with the program and clinical agencies' contractual requirements. Per individual facility requirements, random drug testing may also be required.
3. The College does not provide transportation to and from required clinical facilities.
4. In order to continue in the ADN program students must earn a minimum grade of C in all nursing and other required courses.
5. Nursing courses have specific prerequisites. Refer to course descriptions in this catalog.

Career Opportunities

The graduate is prepared to practice nursing at any entry level in the following settings:
Medical/Surgical Nursing
Psychiatric Nursing
Maternal/Newborn Nursing
Post-Anesthesia Nursing
Perioperative Nursing
Geriatric Nursing
Critical Care Nursing
Rehabilitation Nursing
Neurosurgical Nursing
Oncology Nursing

Faculty

Full Time

Diane Cline
Starlie Luna
Diego Garcia
Renata Longoria
Kay McKinley
Alice Ramming
Jeanine Speakman
Sally Thibeault
Terry Truelove

Degrees and Certificates Awarded

Associate in Science, Nursing
Associate Degree Nursing Certificate
Nursing Licensure Certificate

Certificate Programs

ASSOCIATE DEGREE NURSING CERTIFICATE

Units Required: 80.0 Minimum Units

Nursing Core

NURS 220	Pharmacology and Nursing Management	2.0
NURS 221	Nursing Process 1	10.0
NURS 222	Nursing Process 2	9.0
NURS 223	Nursing Process 3	9.0
NURS 224	Nursing Process 4	9.0
NURS 246	Assessment and Nursing Skills	3.0

Group A: All of the following must be completed:

BIOL 211	Human Anatomy	5.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	5.0
ENGL 101	English Composition and Reading	4.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
SOC 101	Introduction to Sociology	3.0

Group B: One of the following must be completed:

CMST 106	Human Communication	3.0
CMST 107	Family Communication	3.0
CMST 108	Group Discussion	3.0
CMST 109	Public Speaking	3.0

Group C: One of the following must be completed:
3.0 units. One course which meets the VVC Mathematics general education requirements for Category V

Group D: One of the following must be completed:
3.0 units. One course which meets the VVC Humanities general education requirement for Category III

Group E: One Physical Education Course 1 unit

American Institutions and Global Citizenship (see page 61)

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

NURSING LICENSURE CERTIFICATE

Units Required: 67.0

BIOL 211	Human Anatomy	5.0
BIOL 231	Human Physiology	5.0
BIOL 221	General Microbiology	5.0
SOC 101	Introduction to Sociology	3.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
CMST 106, 107, 108, or 109	Human Communication, Family Communication, Group Discussion, or Public Speaking	3.0

ENGL 101	English Composition and Reading	3.0
NURS 220	Pharmacology and Nursing Management	2.0
NURS 221	Nursing Process 1	10.0
NURS 222	Nursing Process 2	9.0
NURS 223	Nursing Process 3	9.0
NURS 224	Nursing Process 4	9.0
NURS 246	Assessment and Nursing Skills	3.0

EACH CLASS MUST BE COMPLETED WITH A GRADE OF "C" OR BETTER.

Placement Options

GENERIC STUDENTS are those who will complete the entire nursing program at Victor Valley College. The application is submitted, and after approval, class selection is made according to the current enrollment process. Students must also pass (=>67%) the Testing of Essential Academic Skills (TEAS) prior to program start. The TEAS Exam tests the student's knowledge of basic Math, English, Reading and applicable science.

TRANSFER STUDENTS are those who transfer nursing units from another college.
The education code allows students to transfer only lower division units to a community college. Each student requesting transfer of Nursing units will be individually evaluated by the Nursing Program Admission, Promotion and Program Effectiveness (AEPE) Committee to determine appropriate placement in the VVC Program. Placement will be made on a space available basis and is determined by the course content and number of nursing degree units completed. A Priority Transfer List will be established according to the Policy for Nursing Program Transfer. Students will be given credit for general education courses according to the college's published policy (see College Catalog). If the student has earned a non-progression grade (D or F) in a registered nursing at another school, acceptance to Victor Valley College Nursing Program will be considered their second chance. Prospective students must score a minimum of 62% on the TEAS.

ADVANCED PLACEMENT STUDENTS (LVN to RN) for those documented as Licensed Vocational Nurses in California.
Students choosing this option must apply to the program, meet the prerequisites (completion of college-level Anatomy, Physiology, and Microbiology; documented proof of one year of full-time or two thousand hours working as an LVN), and take the Credit by Examination* for NURS 220 (Pharmacology and Nursing Management), NURS 246 (Assessment and Nursing Skills), and NURS 222 (Nursing Process 2). Advanced placement students must pass the Credit by Examination for NURS 221. Students are also required to pass (C or better) NURS 225 (LVN to RN Transition Course). Placement into 2nd or 3rd semester is determined by scores on the Credit by Examinations. Depending on the number of applications, acceptance into the transition course may be based on the program's entry policy (Nursing Student Handbook). Applications for this option are accepted in the Winter and Summer. Program placement will be in Spring and Fall respectively. TEAS requirement will be a minimum of 62% for all students.

*Requirements for earning credit by examination include being currently enrolled in at least one course and having successfully completed 12 semester units at VVC with a GPA of 2.0 or higher. **A student may only challenge a given course one time, and may not have already received credit for the course**.

CHALLENGE STUDENTS
Students admitted to the Nursing Program with previous documented experience may be allowed to challenge certain specified content areas (Education Code, Section 5557537), Title 5 of the California Administrative Code.) (Contact the Director of Nursing regarding this option.)

THIRTY-UNIT OPTION
is available to California Licensed Vocational Nurses. The Board of Registered Nursing regulation 1435.5 provides the option of completing 30 semester units in Nursing and related science courses in order to be eligible to take the RN licensure exam. To enter this option the applicant must: 1) have a current California Vocational Nurse License (LVN); 2) have previously completed Human Physiology, 4 or 5 units with a lab, and Microbiology, 4 or 5 units with a lab; both with a C or better. The application and placement policy for Advanced Placement Students also applies to this option (see Item 3 above). Candidates completing this option are not graduates of VVC, but are eligible to take the licensure exam. They are not eligible to wear the VVC graduate Nursing pin nor graduate from the Associate Degree program. (Contact the Director of Nursing regarding this option.)

NON-GRADUATE OPTION
Allows students to complete only those classes required to take the NCLEX exam. In the VVC Nursing Program, those classes are: BIOL 211, 221, 231; ENGL 101; SOC 101, CMST 106, 107, 108, or 109; PSYC 101, PSYC 110; NURS (5 classes) All classes must be completed with a C or better. Students choosing this option are not graduates of VVC. The TEAS requirement applies to all entry options.

Contracts or Grants
The Nursing program reserves the right to bypass portions of the enrollment process to designate a certain number of spaces from any of the above entry options for contracts, grants, pilot programs or partnerships, and/or to meet requirements of grant-designated outcomes.

For detailed information regarding VVC's Associate Degree Nursing Program Placement/Advancement

Policy, please refer to the current ADN Program Student Handbook.

Associate Degree
To earn an Associate in Science degree with a major in Nursing one must complete all certificate courses and meet all Victor Valley College graduation requirements. The Associate Degree Nursing Certificate includes all requirements for both a certificate and an Associate in Science degree in Nursing. The Nursing Licensure Certificate requires additional general education courses to complete an associate degree. The Nursing Licensure Certificate precludes receiving the Associate Degree in Science with a major in nursing.

Transfer
Acceptance into a baccalaureate of science degree in Nursing is based on completion of prerequisites and entrance requirements. To pursue a BSN, complete the following requirements prior to transfer. Visit www.assist.org for the most current information.

California State University, Dominguez Hills
RN to BSN program

1. Minimum of 60 semester units of transferable college credit with a grade point average of at least 2.0 (C) or better in all transferable course work (non-residents: 2.4) and have satisfied any high school subject deficiency in English and mathematics by equivalent course work (the maximum transferable credit accepted from a two-year college is 70 semester units). English composition, Public Speaking, GE Math and Logic/Critical Thinking must be completed prior to admission for new applicants.

2. Current RN licensure in the United States, or an RN interim permit.

3. It is recommended that students obtain GE certification from a community college prior to admission.

California State University, San Bernardino
BSN program

1. Completion of an application to the university and nursing program
2. Attendance at a group advising session
3. Completion of the following prerequisites: BIOL 211, BIOL 231, BIOL 221, CHEM 100 OR H100, CHEM 206, 207, MATH 105 or H105 or MATH 132, CMST 109, ENGL 101, and one course from the following: PHIL 109, 207, RLST 207, ENGL 104, H104
4. Additional support courses: PSYC 110
5. 3.0 GPA minimum
6. "C" or better on all course work

NURSING COURSES

NURS 49 KNOWLEDGE REVIEW FOR PRE-NURSING STUDENTS
Units: 2.0 - 108 hours laboratory. (Prerequisite: Acceptance into VVC Nursing Program AND failure to achieve at least 62% score on the TEAS. Pass/No Pass.) This course may be taken two times.

This course is designed to assist those who have completed the requirements to enter the nursing program but who have not achieved the minimum score on the Test of Essential Academic Skills (TEAS) or have been on the waiting list long enough to need a review of scholastic subjects and study skills.

NURS 138 COOPERATIVE EDUCATION
(See Cooperative Education 1-8 units). CSU

NURS 148 SPECIAL TOPICS
See Special Topics listing (Variable units).

NURS 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

NURS 220 PHARMACOLOGY AND NURSING MANAGEMENT
Units: 2.0 - 32-36 hours lecture. CSU (Prerequisite: Admission to the Nursing Program as required by BRN.)

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.

NURS 221 NURSING PROCESS 1
Units: 10.0 - 90 hours lecture and 270 hours laboratory. CSU. (Prerequisite: Anatomy, Physiology, and Microbiology completed with a grade of 'C' or better. (Corequisite: NURS 220)

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.

NURS 222 NURSING PROCESS 2
Units: 9.0 - 64-72 hours lecture and 240-270 hours laboratory. CSU (Prerequisite: NURS 220 and NURS 221 completed with a grade of 'C' or better.)

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.

NURS 223 NURSING PROCESS 3
Units: 9.0 - 72 hours lecture and 270 hours laboratory. CSU (Prerequisite: NURS 222)

The Nursing Process applied to critical care areas, psychiatric/mental health and complex geriatric care. Emphasis will be on client adaptation in chronic and acute illness.

NURS 224 NURSING PROCESS 4
Units: 9.0 - 72 hours lecture and 270 hours laboratory. CSU (Prerequisite: NURS 223)

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.

NURS 225 LICENSED VOCATIONAL NURSE (LVN) TO REGISTERED NURSE (RN) TRANSITION COURSE
Units: 1.0 - 16-18 hours lecture. CSU. (Prerequisites: Current California Licensure as an LVN and Physiology and Microbiology [Mandated - State of California].)

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.

NURS 226 CRITICAL CARDIO RESPIRATORY NURSING
Units: 2.0 - 32-36 hours lecture. CSU. (Prerequisites: NURS 222 and/or licensed as a Registered Nurse or Licensed Vocational Nurse. Grade Option)

This optional nursing course provides an introduction to critical care nursing environment. Pathophysiology, diagnosis, treatment and nursing implication for patients in the critical care area will be discussed. This course will benefit primarily students going into their third semester of nursing as well as other medical personnel with medical, surgical or cardiac care background.

NURS 227 PARAMEDIC TO RN BRIDGE
Units: 10.0 - 80-90 hours lecture and 240-270 hours laboratory. (Prerequisites: NURS 246 with a minimum grade of 'C' or better and TEAS score of 67% or greater and student must be experienced paramedic.) This course may be taken two times.

This bridge course is designed to ready the paramedic nursing student to the adjustment of culture, language and practice of the profession of nursing. Roles, functions, and practice settings for the paramedic and associate degree nurse will be compared and discussed. 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 peri-operative experience practiced in various clinical settings and the classroom laboratory.

NURS 245 NURSING LEADERSHIP AND MANAGEMENT
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: NURS 223 or equivalent with a "C" or better, or permission of the Nursing Program Director). Contact Nursing Dept. Offered intermittently.

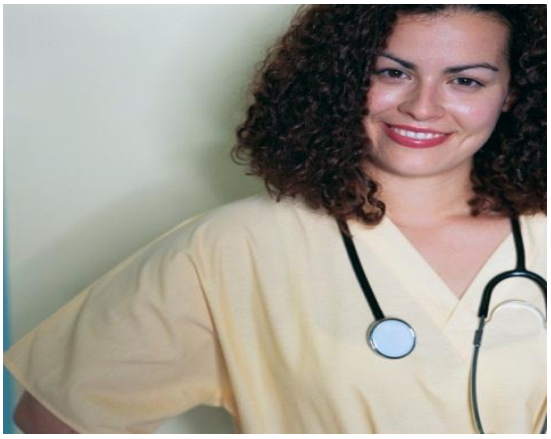
Leadership and management techniques used in various health care settings, with emphasis on problem solving within the changing role of nursing as it relates to patient care and professional relationships.

NURS 246 ASSESSMENT AND NURSING SKILLS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (Prerequisite: Acceptance into the VVC Nursing Program.) This course may be taken two times.

Focuses on development of assessment skills including obtaining a health history, performing physical assessment of the adult, and evaluating physiologic changes related to aging and pediatric patient population. Emphasis on developing interviewing skills, assessing cultural factors, and utilization of basic assessment techniques.

NURSING ASSISTANT

See Allied Health for certificate information



OCEANOGRAPHY COURSES

OCEA 101 OCEANOGRAPHY
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

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.

PARALEGAL STUDIES

A paralegal works in a paraprofessional capacity as an assistant to an attorney in a private law firm, governmental agency industry, or private association. The paralegal performs many tasks normally handled by an attorney, such as preparing forms, writing memoranda, interviewing clients, researching legal matters, managing the law office, and a variety of other tasks. There are also self-employed paraprofessionals who work for attorneys on request.

The Paralegal Studies Certificate program at Victor Valley College is designed for students pursuing paraprofessional careers in the legal field. There are two types of such paraprofessionals.

Paralegal: Pursuant to California Assembly Bill 1761, a person may use the title "paralegal" only when they have obtained the required educational qualifications and they work directly under the supervision of a licensed California attorney.

Legal Document Assistant: Pursuant to California Senate Bill 1418, independent non-attorneys who provide law-related services to the public for compensation must register with the county clerk as a "Legal Document Assistant," and may not use the term "paralegal" in reference to themselves or their service. (For more information on the LDA registration process, contact the California Association of Legal Document Assistants at www.caip.org).

It is *strongly recommended* that students complete ENGL 101 and Political Science 102 before they begin taking paralegal courses so that they will have a firm foundation in writing skills and a basic understanding of the American legal system at the state and national levels of government. It is *further recommended* that students first complete (or at least concurrently enroll in) POLS 130, Introduction to Paralegal Studies, before continuing with other paralegal courses.

This is not a four-year transfer program, it is not transferable for advanced standing in a law school, and is not designed to be a "pre-law" program. The Paralegal Studies Certificate is not equivalent to a law school (J.D. degree) program, and thus, does not serve as a preparation for the bar exam. See a counselor for transfer requirements to other institutions.

PARALEGAL STUDIES CERTIFICATE

Units Required: 36.0

Students must complete a minimum of 36 units, with at least 15 units taken in residence at Victor Valley College, with a minimum grade of "C" in all paralegal classes.

Group I — All of the following must be completed:

POLS 130	Introduction to Paralegal Studies	3.0
POLS 131	Fundamentals of Litigation for Paralegals	3.0
POLS 133	Legal Ethics for Paralegals	3.0
POLS 134	Family Law	3.0
POLS 135	Tort Law for Paralegals	3.0
POLS 136	Legal Writing for Paralegals	3.0
POLS 137	Beginning Legal Research for Paralegals	3.0
AJ 103	Criminal Law	3.0
BADM 117	Legal Environment of Business	3.0

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

AJ 102	Criminal Procedures	3.0
AJ 104	Legal Aspects of Evidence	3.0
BADM 101	Elementary Accounting	
OR 103	Principles of Accounting	3.0-4.0
BRE 110	Legal Aspects of Real Estate I	3.0
BET 104	Beginning Word Processing/Typing Word for Windows A/B/C	1.0-3.0
ENGL 104	Critical Thinking and Composition	3.0
OR PHIL 109	Introduction to Logic	3.0
CMST 109	Public Speaking	3.0

Associate Degree
At this time, Victor Valley College does not offer an associate degree with a major in Paralegal Studies.

Transfer
To pursue a bachelor's degree in this field, CSUSB has a program that might interest you. For the most up-to-date information on this program and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Criminal Justice major, Paralegal Studies Concentration

PARAMEDIC

The paramedic is able to diagnose and treat medical emergencies and accident victims in the pre-hospital setting. To apply for the Paramedic program, students must already be Emergency Medical Technicians; see Emergency Medical Technician for more information.

The Paramedic certificate is a one-year program that runs from June to May and requires a special application. For more information, visit the VVC Paramedic website at: www.vvc.edu/academic/Paramedic. Classes in this area meet California State EMS authority and ICEMA regulations.

"The Victor Valley College Paramedic Academy is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)."

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350
www.caahep.org"

Career Opportunities
Paramedic

Faculty
Full Time
Brian Hendrickson
Scott Jones
Dave Oleson

Degrees and Certificates Awarded
Associate in Science, Paramedic
Paramedic Certificate

Certificate Programs

PARAMEDIC CERTIFICATE

Units Required: 38.5

This certificate prepares students to take the state examination to practice as a paramedic.

All of the following must be completed

ALDH 50	Paramedic Anatomy and Physiology	4.0
ALDH 51	Paramedic Introduction to EMS	1.0
ALDH 52	Paramedic Cardiology	4.0
ALDH 53	Paramedic Pharmacology	3.5
ALDH 54	Paramedic ACLS	1.0
ALDH 55	Paramedic EMS Theory	10.0
ALDH 56	Paramedic Clinical	4.0
ALDH 57	Paramedic Field Internship	11.0

Associate Degree
To earn an Associate in Science degree with a major in EMS, 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 University.

PHILOSOPHY

The study of philosophy is dedicated to reflection on the most fundamental concerns of human life. Students examine and assess the concepts and arguments expressed in writings of influential philosophers on such enduring themes as moral value, religious knowledge, political order, truth, and ultimate reality. Philosophical study assists students in developing such valuable and transferable skills as analytical reading and writing, creative and critical thinking, and sound judgment.

Career Opportunities
(Most careers require a bachelor's or advanced degree.)
Corporate Manager
Ethics Consultant
Lawyer
Management Trainer
Public Administrator
Religious Leader
Social Worker
Teacher
Writer

Faculty
Full Time
Marc Skuster
Emeritus
Milton Danielson

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Philosophy major

- **University of California, Riverside**
  Philosophy major

PHILOSOPHY COURSES

PHIL 101 INTRODUCTION TO PHILOSOPHY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0.)

Introduction to the field of philosophy through a discussion of enduring questions about the nature of existence, knowledge, and value.

PHIL 108 CONTEMPORARY MORAL ISSUES
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0.)

Critical study of major ethical theories and their application to contemporary moral issues in bio-medical practice, law and violence, sexuality, social and economic justice, the environment, and business conduct.

PHIL 109 INTRODUCTION TO LOGIC
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite.)

Introduction to the principles and practice of reasoning: argument analysis and evaluation, induction, deduction, fallacies, categorical logic, propositional logic. Assignments require use of the computer.

PHIL 114 POLITICAL PHILOSOPHY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0.)

A survey of political theory and major figures in the history of political philosophy. Questions concerning the role of government, natural rights and the relationship between government and the individual will be explored by evaluating the works of philosophers such as Plato, Aristotle, Locke, and Marx.

PHIL 117 PHILOSOPHY OF RELIGION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 50 or ENGL 101.0.) See cross listing for RLST 117.

Introduction to major topics in the philosophy of religion: the existence and nature of God, the nature and possibility of religious knowledge, the meaning of religious language, and concepts of immortality and human destiny. Special attention is given to conflicts between religion and science, competing claims for religious truth, the feminist critique of traditional religion, and the relevance of religion to social ethics.

PHIL 120 ANCIENT AND MEDIEVAL PHILOSOPHY
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0.)

Introduction to the major movements and figures of Western Philosophy in the ancient and medieval periods: the Pre-Socratics, Socrates, The Sophists, Plato, Aristotle, Augustine, Anselm, and Aquinas.

PHIL 121 INTRODUCTION TO MODERN AND CONTEMPORARY PHILOSOPHY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 50 or ENGL 101.0.)

Survey of major Western philosophers and movements since the Renaissance: Continental Rationalism, British Empiricism, Kant, Hegel, Marx, Utilitarianism, Nietzsche, Pragmatism, Analytic Philosophy, Existentialism, Phenomenology, and Postmodernism.

PHIL 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

PHIL 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

PHIL 207 INTRODUCTION TO CRITICAL THINKING
Units: 3.0 - 48-54 hours lecture. CSU,UC. (Prerequisite: ENGL 101.0 or ENGL H101 with a minimum grade of 'C'.)

Study and practice in critical thinking and advanced English composition: analysis, evaluation, and formulation of arguments; critical study of texts; and composition of critical essays. Application of critical thinking and writing skills to current moral, social, and religious issues. See cross listing for RLST 207.

PHOTOGRAPHY

The study of photography offers a multitude of career possibilities. From fine art to commercial applications, photography is an exciting field that involves an education founded in conceptual as well as technical aspects. The development of the visual mind and a technical foundation in both traditional and digital imaging are the goals of the study of photography here at Victor Valley College.

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

Faculty
Full Time
Frank Foster
Brent Wood

Degrees and Certificates Awarded
Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts
Digital Photography Certificate

Certificate Program

DIGITAL PHOTOGRAPHY CERTIFICATE

Units Required: 17.0

Prepares the student for a variety of employment opportunities within the photographic field. This certificate also provides an opportunity for the student to continue on toward a more advanced certificate program. The student will be exposed to portrait, industrial, commercial, and architectural photography. An emphasis will be placed on learning Adobe Photoshop, digital cameras and digital output devices. The proper use of light will also be extensively covered. All camera formats will be covered.

All of the following must be completed:

PHOT 100	Beginning Photography	3.0
PHOT 101	Intermediate Photography	3.0
PHOT 105	Portraiture	3.0
PHOT 52	Introduction to Photoshop	3.0
PHOT 53	Lighting Techniques	3.0
PHOT 54	Portfolio Design	2.0

Associate Degree
No associate degree offered with a major in Photography. Photography courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHOT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Photography is usually a concentration or option within an Art or Applied Art major at colleges within the University of California and California State University systems. Various private or independent colleges that 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 or website of the specific university to which they plan to transfer. Also, visit www.assist.org and, for independent schools, www.aiccu.edu.

The following is a sampling of colleges which offer Photography majors or Photography concentrations within Art or Applied Art majors:

- California State University campuses at East Bay, Fullerton, Hayward, Long Beach, San Jose, San Luis Obispo
- University of California, Santa Cruz
- Art Center College of Design, Pasadena
- California College of Arts and Crafts, Oakland
- California Institute of the Arts, Valencia
- Chapman University

PHOTOGRAPHY COURSES

PHOT 50 COMMERICAL PHOTOGRAPHIC APPLICATION
Units: 2.0 - 16-18 hours lecture and 24-27 hours laboratory. (No prerequisite) This course may be taken three times.

This course will introduce the application of photo-graphic 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.

PHOT 51 ENVIRONMENTAL PHOTOGRAPHY
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite) This course may be taken four times.

This course will cover basic camera exposure and composition for a variety of outdoor settings. Topics include: landscape photography, animal photography, flower photography, sports photography, macro photography and outdoor portraits. The uses and understanding of filters, flash and film. Some field trips will be required.

PHOT 52 INTRODUCTION TO PHOTOSHOP
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite) This course may be taken three times.

This course will introduce the basics of Adobe PhotoShop and its application to digital photography utilizing the Macintosh and PC platforms.

PHOT 53 BASIC PHOTOGRAPHIC LIGHTING TECHNIQUES
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite. PHOT 100 or equivalent recommended. Grade Option) This course may be taken four times.

This course will introduce the student to the fundamentals of lighting and its application to imaging processes. A broad range of topics will be covered that include portraiture, product and commercial applications.

PHOT 54 PORTFOLIO DESIGN
Units: 2.0 - 24-27 hours lecture and 24-27 hours laboratory. (No prerequisite. PHOT 100 and PHOT 101 recommended.) This course may be taken four times.

This course will present visual problems for the student to solve for the purpose of creating a traditional and digital portfolio.

PHOT 100 BEGINNING PHOTOGRAPHY
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU,UC. (No prerequisite. Grade Option.) This course may be taken four times.

This is a course that introduces the basics of black and white photography. Technical and conceptual topics will be covered. Students will furnish their own cameras with manual controls.

PHOT 101 INTERMEDIATE PHOTOGRAPH
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite. PHOT 100 is recommended. Grade Option) This course may be taken four times.

This is an intermediate course designed to teach the student how to use film and digital cameras. Topics covered in this course will be intermediate techniques of photography such as an introduction to portraiture, lighting techniques, multiple light portrait photography, infrared techniques and the view camera. An introduction to Adobe Photoshop will also be covered. This course can be completed with film or digital cameras.

PHOT 103 ALTERNATIVE IMAGING PROCESS
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. PHOT 100 or equivalent recommended. Grade Option) This course may be taken four times.

This course will cover a variety of alternative photographic processes such as cyanotype, Van Dyke, hand-coloring and toning using traditional techniques as well as computer generated images.

PHOT 105 PORTRAITURE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. PHOT 100 or equivalent recommended.) This course may be taken two times.

This course will cover studio and outdoor portrait techniques as well as elements of commercial photography and may be completed with digital or film based cameras.

PHOT 106 INTRODUCTION TO PHOTOJOURNALISM
Units: 2.0 - 96-108 hours laboratory. CSU. (No prerequisite.) This course may be taken two times.

This lab class is an introduction to the basics of photojournalism including basic photography skills, digital imaging, processing, composition, and production of written news stories. See cross-listing for JOUR 106.

PHOT 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

PHOT 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

PHYSICAL EDUCATION

Physical Education as an academic science emphasizes knowledge of the body through the study of kinesiology and exercise physiology. Physical Education also contributes to the intellectual, social, emotional, spiritual and physical growth and development of each student. Other areas of study in Physical Education include: nutrition, healthy lifestyles, stress management as well as psychological aspects of physical activity and injury care and prevention. Additional specialties within the discipline of Physical Education which are more fully addressed in the curriculum at Victor Valley College are Dance and Adapted Physical Education. A variety of activities are offered, encouraging students to develop lifelong fitness activities and patterns for recreation.

Any of the Physical Education activity courses may be repeated up to three times, but not more than four units of physical education activity classes will be counted toward the Associate in Arts or Science Degrees.

With the exception of the Adapted courses, all Physical Education activity classes are intended for normal, healthy, individuals. It is highly recommended that anyone 35 years or older have a physical checkup before enrolling. A Physical Education course is required for the Associate degree.

UC maximum credit allowed for PE courses combined: 4 units.

Career Opportunities
Adapted Physical Education Instructor
Certified Athletic Trainer
Certified Personal Trainer
Community Health Practitioner
Dance Choreographer
Dance Instructor
Dietician/Nutritionist
Exercise Physiologist
Exercise Scientist
Health Instructor
Leisure Services Specialist
Physical Education Instructor
Physical Therapist
Professional Dancer
Recreation Director
Sports Manager
Sports Psychologist

Faculty
Full Time
Debra Blanchard
Lynn Guardado
David Hoover
John Paine
Bruce Victor
Christa White

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Dance Certificate

Certificate Program

DANCE CERTIFICATE

Required Units: 11.0 minimum

Group I - All of the following must be completed with a grade of 'C' or better:

PE 103	History and Appreciation of Dance	3.0

Group II – 8.0 units from the following must be completed with a grade of 'C' or better:

PEDA 160 *OR* TA 160	Tap I	1.0
PEDA 161 *OR* TA 161	Tap II	1.0
PEDA 162	Ballroom Dance I	1.0
PEDA 166 *OR* TA 166	Ballet I	1.0
PEDA 167 *OR* TA 167	Ballet II	1.0
PEDA 170 *OR* TA 170	Jazz Dance I	1.0
PEDA 171 *OR* TA 171	Jazz Dance II	1.0
PEDA 174 *OR* TA 174	Modern Dance I	1.0
PEDA 175 *OR* TA 175	Modern Dance II	1.0
PEDA 178	Ballet Folklorico Dance I	1.0
PEDA 180	Dance in Musical Theater	1.0
PEDA 190	Salsa I	1.0
PEDA 266 *OR* TA 266	Ballet III	1.0
PEDA 267 *OR* TA 267	Ballet IV	1.0
PEDA 270 *OR* TA 270	Jazz Dance III	1.0
PEDA 271 *OR* TA 271	Jazz Dance IV	1.0
PEDA 274 *OR* TA 274	Modern Dance III	1.0
PEDA 275 *OR* TA 275	Modern Dance IV	1.0

Group III – Optional 0-3.0 units – No more than one class from the following:

PEDA 176	Dance Rehearsal and Performance I	1.0-3.0
PEDA 177	Dance Rehearsal and Performance II	1.0-3.0
PEDA 276	Dance Rehearsal and Performance III	3.0

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
CSUSB has a popular program in this area:

- **California State University, San Bernardino**
  Kinesiology major

Different concentrations within the Kinesiology major include Exercise Science, Pedagogy, and pre-physical therapy. For information about these options, see CSUSB's catalog (available in the Transfer Center), visit the website at www.csusb.edu, or visit www.assist.org.

Specialties in Exercise Physiology, Exercise Science, Fitness Training, and Sports Medicine are usually under the departments of Physical Education or Kinesiology at the four-year colleges. A major in Kinesiology may also lead to graduate programs in Physical Therapy at other institutions. See Sports Medicine under Medical and Health Professions for further information on these specific fields.

PHYSICAL EDUCATION
GENERAL PHYSICAL EDUCATION COURSES

PE 76 ATHLETIC TRAINING III
Units: 2.0-6.0 - 108-324 hours laboratory. (Recommended Preparation: PE 141 or ALDH 141, Athletic Training I, or equivalent.) This course may be taken four times.

In this course, students will provide the pre-participation, on-site first aid and event maintenance for fall/winter/ spring sports programs at VVC (baseball, basketball, football, golf, soccer, softball, tennis, volleyball and wrestling). Experience will include, but is not limited to, prophylactic taping and padding, immediate first aid, monitoring vital signs, completion of accident forms, proper use of universal biohazard precautions, supervision of safe playing conditions and coaching techniques, recognition of medical emergencies, assisting other medical personnel as needed, game preparation and pre-participation medical screenings. See cross listing for ALDH 76.

PE 77 ATHLETIC TRAINING IV
Units: 2.0-6.0 - 108-324 hours laboratory. (Recommendation Preparation: PE 141 or ALDH 141, Athletic Training I, or equivalent.) This course may be taken four times.

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, hydrocolator, Range of Motion exercises, joint mobilization, strengthening exercises (isokinetic, isotonic, isometric), cardiovascular conditioning and proprioceptive exercises. See cross listing for ALDH77.

PE 101 INTRODUCTION TO EXERCISE SCIENCE AND KINESIOLOGY
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Grade Option)

An introduction and orientation to the discipline of Kinesiology. It includes an analysis of the importance of physical activity in daily life, the relationship between physical activity and the discipline of Kinesiology. The course surveys the general knowledge base of the discipline as reflected in the major sub-disciplines and reviews selected ideas in each, showing how they contribute to our understanding of the nature and importance of physical activity. In addition this course explores career opportunities and the developmental history of the discipline using critical analysis and comparative analysis of literature, philosophy, and scientific research.

PE 103 HISTORY AND APPRECIATION OF DANCE
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Grade Option)

The origin, growth, and development of dance (in all forms) will be researched. A study of dances originating in many areas of the world will be covered. The class will research who, when, where, and how each dance originated. The class will trace dance from its origin to modern times.

PE 104 PSYCHOLOGY OF PHYSICAL PERFORMANCE
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite. Grade Option)

An introduction to the discipline of sports psychology for students with no previous background in the field. Topics include: orientation to sports psychology, motivational techniques, individual differences and sport behavior, social-environmental influences and sports behavior, and intervention techniques and sports behavior.

PE 105 DEVELOPMENTAL MOVMENT OF CHILDREN
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite)

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.

PE 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

PE 140 CARE AND PREVENTION OF INJURIES RELATED TO PHYSICAL ACTIVITY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

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.

PE 141 ATHLETIC TRAINING I
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. See cross listing for ALDH 141. (No prerequisite. Interest and/or experience in athletics and sports recommended.)

Introduction to principles of athletic training, including prevention, evaluation, treatment and rehabilitation of common athletic injuries.

PE 142 ATHLETIC TRAINING II
Units: - 3.0 – 32-36 hours lecture and 48-54 hours laboratory. CSU. UC. (Recommended Preparation: PE 141 or ALDH 141 Athletic Training I, or equivalent.)

This course will build on the student's basic knowledge of human anatomy and athletic injuries. Topics will include emergency procedures, current health concerns of the athlete, protective devices, advanced taping techniques and injury management. See cross listing for ALDH 142.

PE 150 LIFETIME FITNESS CONCEPTS
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU. (No prerequisite. Grade option)

Designed to help the students understand the role of physical fitness in daily living. Will cover the "how" and the "why" of physical activity. The course will acquaint the student with the human body's structure and functions in relation to physical activity. Students will be introduced to methods of evaluating their own fitness needs and design a program for present and future needs.

PE 160 PHYSICAL FITNESS
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

Physical Fitness is an exercise course designed to emphasize fitness by offering the student a variety of exercises to include hand weights, exercise ball, aerobics and step aerobics which can be used to maintain fitness throughout life.

PE 162 WEIGHT TRAINING I
Units: 1.0 - 48-54 hours laboratory. CSU,UC (UC credit limitation). (No prerequisite. Grade Option) This course may be taken four times.

Introduction to the basic techniques of weight training. The principles of strength development, the role of proper nutrition, the physiology of muscle tissue, the major muscles of the body, and safety will be presented in class. Various weight lifting programs covering strength development, endurance, and body building will also be introduced.

PE 163 WEIGHT LIFTING II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option.) This course may be taken four times.

A weight lifting course for those students who have been consistently participating in a weight lifting program for 6-12 months for at least three hours per week. This course is designed to emphasize continued individual growth in the areas of body building, body sculpturing and strength at an intermediate level. Repetition of the course provides the opportunity for increased skill development.

PE 164 AEROBIC WEIGHT TRAINING
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

Aerobic weight training combines strength and cardiovascular fitness training into a comprehensive weight training program that has as its major objective the development of all-around fitness. It offers measurable benefits to muscular strength, muscular endurance, body composition, flexibility, and cardiovascular/ aerobic fitness.

PE 165 BASKETBALL
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

An introduction to the basic skills, rules, and strategies of basketball including: catching, passing, shooting, and dribbling. Repetition of the course provides the opportunity for increased skill development.

PE 166 VOLLEYBALL
Units: 1.0 - 48-54 hours laboratory. CSU,UC (UC credit limitation). (No prerequisite. Grade Option.) This course may be taken four times.

This course is designed to cover the basic rules, techniques and skills, game strategies, and highlights officiating points of volleyball.

PE 168 SELF DEFENSE
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

An in-depth look into the skills of self-defense. Defensive strategies to protect oneself from attack. Also, the necessary steps to take to avoid an attack. Designed for all ages.

PE 180 TENNIS
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

The course offers logical sequences of learning experiences that include: basic tennis strokes; rules that govern play; understanding of game strategies; individual practice drills, and learning the equipment and safety involved.

PE 181 GOLF
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

Covers the use and skill development of equipment including woods, irons and putters. Includes the reading of greens, distance and selection of clubs, etiquette and rules of golf.

PE 185 FOOTBALL TECHNIQUES AND CONDITIONING
Units: 2.0 - 96-108 hours laboratory. CSU, UC (UC credit limitation). (No prerequisite. Grade option) This course may be taken four times.

Course will include drills and exercises to develop the skills, techniques, and conditioning essential for participation in intercollegiate football.

PE 190 YOGA
Units: 1.0 - 48-54 hours laboratory. CSU. (No prerequisite. Grade Option.) This course may be taken four times.

This course is an introduction to basic yoga practices and principles. Instruction includes classifications of yoga postures as well as guided relaxations and breathing practices. The benefits of yoga include increased flexibility, strength, balance, body awareness and stress reduction. This course is designed for students of all ages and fitness levels.

DANCE COURSES

PEDA 152 DANCE CHOREOGRAPHY I (formerly PE 26A)
Units: 2.0 – 16-18 hours lecture and 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

This course is designed to introduce students to the basic elements of dance choreography. Choreography students will work in solo and small groups by using concepts of space, time, and energy to investigate and explore the basic elements of dance.

PEDA 153 DANCE CHOREOGRAPHY II (formerly PE 26B)
Units: 2.0 – 16-18 hours lecture and 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

This course is designed to introduce students to the advanced elements of dance choreography. Choreography students will work in solo and small groups by using concepts of space, time, and energy to investigate and explore the advanced elements of dance.

PEDA 160 TAP I
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

Developing skill in tap dancing will be the focus. Skills learned will be a prerequisite to more advanced techniques and which can be used to advance to a more advanced tap class. See cross listing for TA 160.

PEDA 161 TAP II
Units: 1.0 - 48-54 hours laboratory. CSU. Student may be required to audition and be approved by instructor for entrance to class. (Grade option) This course may be taken four times.

Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for TA 161.

PEDA 162 BALLROOM DANCE I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (UC credit limitation.) (No prerequisite. Grade option) This course may be taken four times.

Ballroom Dance I encompasses dance techniques, styles and rhythms of beginning level ballroom dance, both traditional and Latin dances will be included. Emphasis on exploring the movement characteristics of the dances.

PEDA 166 BALLET I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning ballet dance. Emphasis on exploring the movement characteristics of ballet through dancing. See cross listing for TA 166.

PEDA 167 BALLET II
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade option) This course may be taken four times.

Technique and style of secondary level II ballet dance. Emphasis on exploring the movement characteristics of level II ballet through dancing. See cross listing for TA 167.

PEDA 169 YOGALATES
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option.) This course may be taken four times.

This course in Yogalates is based on the Pilates concepts developed by Joseph Pilates and Yoga. The course will include Pilates core matwork and Yoga and will emphasize improved body alignment, strength, flexibility, control, concentration, circulation, coordination, breathing and help reduce stress.

PEDA 170 JAZZ DANCE I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning jazz dance. Emphasis on exploring movement characteristics of jazz dance in all forms. See cross listing for TA 170.

PEDA 171 JAZZ DANCE II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of level II jazz dance. Emphasis on exploring the movement characteristics of secondary level of jazz through dancing. See cross listing for TA 171.

PEDA 174 MODERN DANCE I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning modern dance. Emphasis on exploring the movement characteristics of

level I modern dance through dancing. See cross listing for TA 174.

PEDA 175 MODERN DANCE II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of secondary level II modern dance. Emphasis on exploring the movement characteristics of secondary level II modern dance through dancing. See cross listing for TA 175.

PEDA 176 DANCE REHEARSAL AND PERFORMANCE I
Units: 1.0-3.0 - 48-54 hours laboratory per unit, per term. CSU (No prerequisite. Grade option) This course may be taken four times.

This course is designed to introduce students to the methods used for dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills.

PEDA 177 DANCE REHEARSAL AND PERFORMANCE II
Units: 1.0-3.0 - 48-54 hours laboratory per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

This course is designed to introduce students to the methods used for secondary levels of dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills.

PEDA 178 BALLET FOLKLORICO DANCE I
Units: 1.0 - 48-54 hours laboratory. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This introductory course is designed so that students are exposed to the basic elements of Ballet Folklorico dance. Different techniques from various regions in Mexico will be covered.

PEDA 180 DANCE IN MUSICAL THEATER
Units: 1.0 - 48-54 hours laboratory. CSU. (No prerequisite. Grade Option) This course may be taken four times.

This course is an in-depth performance experience focusing on styles of body movement for Musical Theatre stage productions. The fundamentals of dance will be reviewed, including basic ballet positions and exercises and basics in tap. Concepts of the history of dance in musical stage will also be explored.

PEDA 190 SALSA I
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (No prerequisite. Grade Option) This course may be taken four times.

Salsa dancing basics, partner basics and beginning dance patterns.

PEDA 266 BALLET III
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III ballet dance. Emphasis on exploring the movement characteristics of intermediate level III ballet dance through dancing. See cross listing for TA 266.

PEDA 267 BALLET IV
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade option) This course may be taken four times.

Technique and style of advanced level IV ballet dance. Emphasis on exploring the movement characteristics of advanced level IV ballet dance through dancing. See cross listing for TA 267.

PEDA 270 JAZZ DANCE III
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III jazz dance. Emphasis on exploring the movement characteristics of intermediate level III jazz through dancing. See cross listing for TA 270.

PEDA 271 JAZZ DANCE IV
Units: 1.0 - 48-54 hours laboratory. CSU,UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of level IV jazz dance. Emphasis on exploring the movement characteristics of advanced level IV jazz through dancing. See cross listing for TA 271.

PEDA 274 MODERN DANCE III
Units: 1.0 - 48-54 hours laboratory. CSU,UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III modern dance. Emphasis on exploring the movement characteristics of intermediate level III modern dance through dancing. See cross listing for TA 274.

PEDA 275 MODERN DANCE IV
Units: 1.0 - 48-54 hours laboratory. CSU,UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of advanced level IV modern dance. Emphasis on exploring the movement characteristics of advanced level IV modern dance through dancing. See cross listing for TA 275.

PEDA 276 DANCE REHEARSAL AND PERFORMANCE III
Units: 1.0–3.0 - 48-54 hours laboratory per unit. CSU (No prerequisite. Grade option) This course may be taken four times.

This course is designed to introduce students to the methods used for intermediate dance rehearsal and performance. Students will learn the etiquette of dance rehearsal and performance, develop skills needed for quick pick up in dance choreography, and performance skills needed for dance production purposes. Repetition of this course provides an increase of developed skills.

ADAPTED PHYSICAL EDUCATION COURSES

APE 160 ADAPTED PHYSICAL EXERCISE
Units: 1.0 - 48-54 hours laboratory. CSU, UC. (UC credit limitation). (Prerequisite: Physical condition limiting participation in regular physical education courses. Medical release applicable. Grade option) This course may be taken four times.

Individualized fitness program designed for those with limitations. An individualized fitness program designed to maintain or increase current fitness level. Activities include postural skills, elements of fitness, relaxation and body concepts. Repetition of the course enhances or maintains current movement of fitness level.

APE 166 ADAPTED CARDIOVASCULAR TRAINING
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to meet the needs of students with disabilities who require restricted or modified activities. Individualized cardiovascular exercise programs will be performed by students with instruction covering the elements of physical fitness. Emphasis will be placed on cardiovascular training principles and techniques.

APE 167 ADAPTED WEIGHT TRAINING
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to meet the needs of students with disabilities who require restricted or modified activities. Individualized exercise programs will be performed by students with instruction covering the elements of physical fitness through weight training. Emphasis will be placed on principles and techniques.

APE 169 ADAPTED CARDIAC REHABILITATION
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to meet the needs of students with disabilities/special needs who require restricted or modified activities pertaining to the heart. Individualized exercise programs for cardiac rehab students will be performed with instruction covering the elements of cardiovascular fitness. Emphasis will be placed on the special needs of this population.

APE 183 ADAPTED WALKING FOR FUN FITNESS
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

This course is designed to meet the needs of students who require restricted or modified activities. Individualized cardiovascular exercise programs will be performed by students with instruction covering the elements of physical fitness. Emphasis will be placed on cardiovascular training principles and techniques through walking.

APE 185 ADAPTED SPORTS AND GAMES
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade Option) This course may be taken four times.

The adapted sports and games course is designed to develop students gross motor skills and to facilitate their participation in life-long activities enhancing improved fitness, self-esteem, and social interaction. Activities include but are not limited to bowling, softball, and frisbee. Fitness, rules, and sportsmanship will also be discussed.

PHYSICAL SCIENCES

General Physical Sciences includes a number of scientific courses which often encompass a number of related disciplines. They are intended to serve as introductory level general education courses while also providing a basis for future, more advanced study in each of their respective fields.

Career Opportunities
(May require advanced degree)
Astronomer
Geologist
Meteorologist
Oceanographer

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Physical Sciences. Physical Science courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. PSCI 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here is a school that has a program that might interest you. For the most up-to-date information on this program and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **University of California, Riverside**
  Physical Sciences major

PHYSICAL SCIENCE COURSES

PSCI 101 PRINCIPLES OF PHYSICAL SCIENCE
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

A general education course dealing with basic concepts of the physical sciences including astronomy, geology, meteorology, and oceanography.

PSCI 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

PSCI 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

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.

Career Opportunities
(May require advanced degree)
Engineer
Physicist
Teaching at many levels

Faculty
Full Time
Michael Butros

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts
Associate in Science, Math/Science

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Physics. Physics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHYS 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Physics major
- **University of California, Riverside**
  Physics major

PHYSICS COURSES

PHYS 100 INTRODUCTORY PHYSICS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: MATH 50 with a grade of 'C' or better.)

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.

PHYS 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

PHYS 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

PHYS 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

PHYS 201 ENGINEERING PHYSICS
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: MATH 226 with a minimum grade of 'C'. MATH 226 or MATH H226 may be taken concurrently.)

Course material includes a study of vectors, rectilinear motion, motion in a plane, particle dynamics, work and energy, conservation laws, collisions, rotational kinematics and dynamics.

PHYS 202 ENGINEERING PHYSICS (MECHANICS OF FLUIDS, HEAT AND SOUND)
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 201 and MATH 227 or MATH H227. MATH 227 or MATH H227 may be taken concurrently)

Equilibrium of rigid bodies, oscillations, gravitation, fluid statics and dynamics, waves in elastic media, sound, and thermodynamics.

PHYS 203 ENGINEERING PHYSICS (ELECTRICITY AND MAGNETISM)
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 202 and MATH 228 or MATH H228. MATH 228 or MATH H228 may be taken concurrently)

Charge and matter, the electric field, electric potential, capacitors and dielectrics, direct current and resistance, electromotive force and circuits, the magnetic field, inductance, magnetic properties of matter, electromagnetic oscillations, alternating currents, electromagnetic waves, and the Maxwell Equations.

PHYS 204 ENGINEERING PHYSICS IV
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 203.)

Course material includes the nature and propagation of light, reflection and refraction, interference, diffraction, gratings and spectra, relativity, elements of quantum physics, waves and particles, nuclear physics.

PHYS H204 HONORS ENGINEERING PHYSICS (LIGHT AND MODERN PHYSICS)
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 203)

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.

PHYS 221 GENERAL PHYSICS I
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: MATH 104 and MATH 226 or MATH H226. MATH 226 or MATH H226 may be taken concurrently.)

Vectors, motion in one and two dimensions, particle dynamics, work and energy, conservation laws, collisions, rotational motion and dynamics, thermodynamics.

PHYS 222 GENERAL PHYSICS II
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. CSU, UC (UC credit limitation). (Prerequisite: PHYS 221; corequisite: MATH 227 or MATH H227. Recommended preparation: PHYS 100 is strongly recommended.)

Electromagnetic theory, oscillations, waves, geometrical optics, interference and diffraction quantum physics, atomic and nuclear physics.

PHYSIOLOGY
See Biology

POLITICAL SCIENCE

Political science is the study of political philosophies, processes, principles, and the structures of government and other political institutions. This academic discipline leads toward an understanding of the institutions of political ideologies, institutions of government, the roles of citizens and political leaders, interest groups and political parties, the electoral process, and contemporary issues that surround our public life. This field also includes an analysis of governments around the world and of international relations.

Career Opportunities
Attorney
Budget Analyst
Campaign Consultant/Staff Member
Educator
Foreign Diplomat/International Organization Worker
Government Official/Elected Official
Intelligence Officers & Analysts
Law Enforcement Officer
Legislative/Executive Staff Assistant
Lobbyist
National/International Business Position
Nonprofit Organization Staff Member
Print/Broadcast Journalist
Political Party Worker
Urban Planner/City Manager

Faculty
Full Time
Dino Bozonelos
David Dupree

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program

INTERNATIONAL STUDIES CERTIFICATE

Required Units: 15.0 – 17.0

Group I – All of the following must be completed:

POLS 110	Contemporary World Affairs	3.0
POLS 111	Global Issues	3.0
POLS 112	Comparative Government	3.0
POLS 113	Politics of the Middle East and North Africa	3.0

Group II – One of the following must be completed:

ANTH 102	Cultural Anthropology	3.0
FREN 101	Elementary French	5.0
GEOG 102	Cultural Geography	3.0
GERM 101	Elementary German	5.0
HIST 104	World History Since 1500	3.0
HIST 131	Latin American History	3.0
RLST 110	World Religions	3.0
SPAN 101	Elementary Spanish	5.0
SPAN 101A	Fundamentals of Spanish 1A	3.0
SPAN 125	Conversational Spanish	3.0
CMST 105	Intercultural Communication	3.0

The Political Science Department also offers a certificate in Paralegal Studies. See paralegal Studies for further information about this program of study.

Associate Degree
No associate degree offered with a major in Political Science. Some Political Science courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. Paralegal Courses (POLS 130, 131, 133, 134, 135, 136, 137) may be used as Electives but may not be used to fulfill major requirements for any degree at this time. Also see Administration of Justice.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Political Science major

- **University of California, Riverside**
  Political Science major

POLITICAL SCIENCE COURSES

POLS 90A MODEL UNITED NATIONS A
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

This course introduces students to the theory and practice of international diplomacy through participation in Model United Nations simulations. The course focuses on the history, structure, and functions of the United Nations; international bargaining and diplomacy; conflict resolution; researching and writing position papers and resolutions; and public speaking. Students are not required to attend a Model United Nations Conference.

POLS 90B MODEL UNITED NATIONS B
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

This course introduces students to the theory and practice of international diplomacy through participation in Model United Nations simulations. The course focuses on the history, structure, and functions of the United Nations; international bargaining and diplomacy;

conflict resolution; researching and writing position papers and resolutions; and public speaking. Students are not required to attend a Model United Nations Conference.

POLS 90C MODEL UNITED NATIONS C
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

This course introduces students to the theory and practice of international diplomacy through participation in Model United Nations simulations. The course focuses on the history, structure, and functions of the United Nations; international bargaining and diplomacy; conflict resolution; researching and writing position papers and resolutions; and public speaking. Students are not required to attend a Model United Nations Conference.

POLS 90D MODEL UNITED NATIONS D
Units: 3.0 - 48-54 hours lecture. (No prerequisite. Grade option)

This course introduces students to the theory and practice of international diplomacy through participation in Model United Nations simulations. The course focuses on the history, structure, and functions of the United Nations; international bargaining and diplomacy; conflict resolution; researching and writing position papers and resolutions; and public speaking. Students are not required to attend a Model United Nations Conference.

POLS 91A INDIVIDUAL EVENTS
Units: 2.0 - 16-18 hours lecture and 32-36 hours individualized instruction. (No prerequisite. Grade Option)

Model United Nations individual events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution. Participate in conferences and competitions simulating policies and conflicts within the United Nations.

POLS 91B INDIVIDUAL EVENTS
Units: 2.0 - 16-18 hours lecture and 32-36 hours individualized instruction. (No prerequisite. Grade Option)

Model United Nations individual events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution. Participate in conferences and competitions simulating policies and conflicts within the United Nations.

POLS 91C INDIVIDUAL EVENTS
Units: 2.0 - 16-18 hours lecture and 32-36 hours individualized instruction. (No prerequisite. Grade Option)

Model United Nations individual events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution. Participate in conferences and competitions simulating policies and conflicts within the United Nations.

POLS 91D INDIVIDUAL EVENTS
Units: 2.0 - 16-18 hours lecture and 32-36 hours individualized instruction. (No prerequisite. Grade Option)

Model United Nations individual events training for intercollegiate United Nations conferences and competitions. Instruction and direction for delegate training. Preparation for international current event debates, parliamentary debate and conflict resolution. Participate in conferences and competitions simulating policies and conflicts within the United Nations.

POLS 101 INTRODUCTION TO POLITICAL SCIENCE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

POLS 102 INTRODUCTION TO AMERICAN GOVERNMENT AND POLITICS
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

POLS H102 HONORS AMERICAN GOVERNMENT AND POLITICS
Units: 4.0 - 64-72 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

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.

POLS 103 STATE AND LOCAL GOVERNMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

POLS 110 CONTEMPORARY WORLD AFFAIRS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

POLS 111 GLOBAL ISSUES
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade Option)

This course is a survey of contemporary international issues and international organizations. Topics, such as "terrorism," geopolitical relationships, and ethnic conflicts, will be examined within the context of the United Nations system and its related regional organizations. This course will assist students to prepare for Model United Nations conference competitions. Participation in the Model United Nations conference competitions is voluntary and not a requirement for this course.

POLS 112 COMPARATIVE GOVERNMENT
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

POLS 113 POLITICS OF THE MIDDLE EAST AND NORTH AFRICA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Grade option)

This course will examine the Middle East and North Africa through a comparative politics perspective. This will include an examination of the following items: an overview of the region's histories, geographies, peoples, cultures, religions and languages; the fundamentals of the Islamic and Judaic belief systems; current events such as the Israeli-Palestinian conflict, the War in Iraq and other real potential geopolitical conflicts.

POLS 114 POLITICAL PHILOSOPHY
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite)

A survey of political theory and major figures in the history of political philosophy. Questions concerning the role of government, natural rights and the relationship between government and the individual will be explored by evaluating the works of philosophers such as Plato, Aristotle, Locke and Marx.

POLS 120 LEADERSHIP
Units: 2.0 - 32-36 hours lecture and 15 hours laboratory. CSU. (No prerequisite)

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.

POLS 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

POLS 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units).

POLS 130 INTRODUCTION TO PARALEGAL STUDIES
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

Students will learn the nature of the career field, the skills and knowledge required, the ethical requirements, the background in court systems, and the legal research and writing that are necessary for success in the profession. The emphasis is placed on functions of a paralegal within a private law firm, within a government agency, as a business owner, and as a litigation assistant. CSU.

POLS 131 FUNDAMENTALS OF LITIGATION FOR PARALEGALS
Units: 3.0 **-** 48-54 hours lecture. CSU. (No prerequisite)

This course examines the intricate working of the American court system and the role of the paralegal in litigation practice. This course will focus on the process that begins with the client interview, extends through the filing, develops into the discovery state, takes final shape in the trial stage and ends with enforcement of a judgment. 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.

POLS 133 LEGAL ETHICS FOR PARALEGALS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course examines the role of the paralegal in the rendering of legal services by attorneys to clients and the ethical rules that govern that relationship. The student will become familiar with the concept of the unauthorized practice of law, the criminal penalties such practices carry and the best means to avoid liability. Comprehensive study of the ABA's Model Rules of Professional Conduct will give the student a broad base from which to operate ethically and legally as a paralegal.

POLS 134 FAMILY LAW
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course examines Family Law rules and procedures for the paralegal working in a California family law practice. Concepts covered include marital contracts, annulment, separation, dissolution, child custody and support, spousal support, property division, and tax consequences of family law procedures. Included will be current topics in family law such as demise of marriage, same-sex unions, adoptions, and surrogate motherhood.

POLS 135 TORT LAW FOR PARALEGALS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course introduces the paralegal to the world of tort law; takes them through the basic concepts that are the foundation of negligence litigation (duty, breach, causation, damages), intentional torts to both persons and property, and strict liability. Introduces the student to investigative procedures in personal injury cases.

POLS 136 LEGAL WRITING FOR PARALEGALS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course provides the paralegal student with the development of good legal writing skills. Critical analysis of proper legal writing forms stressing logic, clarity and format will be used to shape the paralegal student's ability to produce such legal documents as correspondence, legal briefs, memorandum of law, pleadings, and appellate briefs.

POLS 137 BEGINNING LEGAL RESEARCH FOR PARALEGALS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course provides the paralegal student with a beginning introduction to the sources and means of legal research. The course will focus on developing the student's ability to locate and use various types of legal authority including legal encyclopedias, constitutions, statutes, court opinions, administrative regulations, and appellate decisions. The student will be expected to learn and practice Shepardizing and citation checking skills.

POLS 139 WILLS AND TRUSTS FOR PARALEGALS
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite.)

This course introduces the paralegal student to the laws of Wills, Trusts and Estates, including the creation of wills, testate succession, intestate succession, trust creation and arrangements, family protection, estate planning, probate courts, and estate taxes.

POLS 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units)

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.

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
Patricia Jennings
Jim Previte
Bill Bachofner, Emeritus
Milt Danielson, Emeritus
Jennie Lackey, Emeritus

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded. See Alcohol and Drug Studies for certificates offered at surrounding community colleges.

Associate Degree
No associate degree offered with a major in Psychology. Psychology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PSYC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Psychology major

- **University of California, Riverside**
  Psychology major
  Psychobiology major

Local Bachelors Program
For information on the following program located in the High Desert, please visit: www.vvc.edu/office/guidance and counseling/ and select "Counseling Information Sheets":

- **Brandman University, Victor Valley Campus**
  Psychology major

PSYCHOLOGY COURSES

PSYC 101 INTRODUCTORY PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0)

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. It includes essential features of the biological and neurological basis of behavior.

PSYC H101 HONORS INTRODUCTORY PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC No prerequisite. Recommended preparation: Eligibility for ENGL 101.0)

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. It includes essential features of the biological and neurological basis of behavior.

PSYC 102 INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

The psychology experiment, critiques of published research, basic statistical procedures. Each student conducts and reports several experiments.

PSYC 103 PERSONAL AND SOCIAL ADJUSTMENT
Units: 3.0 - 48-54 hours lecture. CSU. (No Prerequisite. Grade option)

Approaches to understanding of personality, the dynamics of personality, personal adjustment, mental hygiene.

PSYC 105 PERSONAL AND CAREER SUCCESS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No Prerequisite. Grade option)

This intensive course is designed to assist students in obtaining the skills and knowledge necessary to identify and reach their personal goals and achieve college and career success. Topics covered include: self-awareness, goal-setting, motivation and discipline, memory development, time management, oral and written communication skills, study skills, diversity, financial planning, and an orientation to college life. See cross listing for GUID 105.

PSYC 108 IDENTIFYING AND HELPING SURVIVORS OF DYSFUNCTIONAL FAMILIES
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

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.

PSYC 109 NEUROPSYCHOLOGICAL BASIS OF BEHAVIOR
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

The course relates states and behaviors such as licit and illicit chemicals, Cirdadian rhythms, emotion, learning, thought, memory, motivation, exercise, reproduction, sensation and perception, sleep, and abnormal behavior to the structure and function of the nervous system. Research methods and techniques are also discussed.

PSYC 110 DEVELOPMENTAL PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0 and satisfactory completion of PSYC 101.)

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.

PSYC H110 HONORS DEVELOPMENTAL PSYCHOLOGY
Units: 4.0 - 64-72 hours lecture. CSU, UC (No prerequisite: Recommended preparation: Eligibility for ENGL 101.0 and satisfactory completion of PSYC 101.

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.

PSYC 111 INTRODUCTION TO CHILD PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

A study of the physical, intellectual, emotional, and social development of the child extending from the prenatal period through adolescence. 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

PSYC 121 HUMAN SEXUALITY AND INTIMACY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite.)

This is a survey course of human sexual and intimate behaviors throughout the life cycle. It includes the physiological, psychological, sociological, and theoretical approaches of human sexuality, the cultural legacy of human sexuality, variations of sexual behaviors and intimate relationships, sexuality throughout the life cycle, sexual disorders and related social issues.

PSYC 125 INTRODUCTIN TO COUNSELING
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Recommended preparation: PSYC 101.

An introduction to principles and practices of counseling concepts will be the primary focus. A systematic consideration of the basic skills and theories essential for effective counseling and problem solving.

PSYC 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

PSYC 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units)

PSYC 133 INTRODUCTION TO DRUG/ALCOHOL STUDIES
Units: 3.0 - 48-54 hours lecture. CSU, UC (UC credit limitation). (No prerequisite)

This course will provide a historical perspective on drug/alcohol abuse, its impact on the individual, the family, the community and society. Definitions of use, abuse, and addiction will be presented as well as the disease concept of addiction. The effectiveness and economics of various models of treatment and rehabilitation will be explored.

PSYC 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

PSYC 204 SOCIAL PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: PSYC 101 or PSYC H101)

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.

PSYC 213 ABNORMAL PSYCHOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course explores the history and classifications of psychological disorders, symptom criteria, clinical assessment, diagnosis, and the major theoretical treatment modalities. The Psychoanalytic, Cognitive-Behavioral, Humanistic, Biological, and Socio-Cultural theories are emphasized. How we define, assess, treat, and study psychological disorders from each theoretical perspective is the thematic focus of the course. A variety of class exercises are used to illustrate and understand the etiology, symptoms, diagnosis, and treatment of psychological disorders.

RELIGIOUS STUDIES

The academic study of religion is an objective, factual study of the texts, symbols, myths, rituals, ideas, and values of the world's many religious traditions. Students are encouraged to view religion multiculturally as a means of understanding more deeply the spiritual dimensions of human nature, history, and society. Study in this field prepares students for life in a multicultural society and provides practice in such valuable skills as empathetic reading and listening, critical reflection, and descriptive and analytical writing.

Career Opportunities
(Most careers require a bachelor's or advanced degree.)
Chaplain
Counselor
Government Service
Nonprofit Management
Professional Religious Leader
Religious Broadcaster
Religious Business Manager
Religious Educator
Religious Journalist
Religion Publisher
Social Worker
Teacher

Faculty
Full Time
Marc Skuster
Milt Danielson, Emeritus

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

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

Transfer
To pursue a bachelor's degree in this field, here is an institution that has a program that might interest you. For the most up-to-date information on this program and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **University of California, Riverside**
  Religious Studies major

RELIGIOUS STUDIES COURSES

RLST 101 INTRODUCTION TO RELIGIOUS STUDIES
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0 is recommended.)

Introduction to the primary forms of religious experience and expression and to the structure of religious worldviews. Examples from a variety of societies and time periods introduce and illustrate such topics as religious symbols, myths, ritual, and communities, as well as alternative concepts of ultimate reality, cosmogony, theodicy, and soteriology.

RLST 105 RELIGIONS OF THE ANCIENT NEAR EAST, THE HEBREW SCRIPTURES, AND THE OLD TESTAMENT
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0.)

Introduction to the religious history of the ancient Near East. Historical study of the sources, contents, interpretation, and religious and historical significance of the Hebrew Scriptures and the Old Testament.

RLST 106 INTRODUCTION TO THE NEW TESTAMENT AND EARLY CHRISTIAN LITERATURE
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0 is recommended.)

Historical introduction to classical Mediterranean religion and culture. Comparative literary, historical, and sociological analysis of the New Testament and early Christian literature.

RLST 110 RELIGIONS OF THE MIDDLE EAST AND THE WEST
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0.)

Survey of the history, beliefs, and practices of the major religious traditions of the Middle East and West; ancient Greek, Roman, Egyptian, Mesopotamian, and Persian religions; indigenous religions; Mesoamerican religions; Judaism; Christianity; Islam; new religious movements.

RLST 111 RELIGIONS OF SOUTH AND EAST ASIA
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0.)

Survey of the history, beliefs, and practices of the major religions of East and South Asia: Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, and Shinto. Discussion of modern challenges to traditional religion and the emergence of new religious movements inspired by Asian traditions.

RLST 113 RELIGION AND SOCIETY
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Recommended preparation: ENGL 50 or eligibility for ENGL 101.0 is recommended.)

Study of the interaction between social forces and religious belief and practice, with an emphasis on contemporary American social and religious life. Special topics include the social aspects of evangelical religion, the interaction of religion and politics, the relation between religion and gender, and the impact of globalization.

RLST 115 RELIGION IN AMERICA
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0)

Historical study of religion in America, including both its diversity and unifying factors. Major topics include Native American religion, Judaism, Roman Catholicism, Protestantism Christianity, African-American religion, American sects, metaphysical and occult religions, Asian religions, and religious dimension of public life, politics, and popular culture.

RLST 117 PHILOSOPHY OF RELIGION
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite. Recommended preparation: Eligibility for ENGL 101.0 or ENGL 50.) See cross listing for PHIL 117.

Introduction to major topics in the philosophy of religion: the existence and nature of God, the nature and possibility of religious knowledge, the meaning of religious language, and concepts of immortality and human destiny. Special attention is given to conflicts between religion and science, competing claims for religious truth, the feminist critique of traditional religion, and the relevance of religion to social ethics.

RLST 207 INTRODUCTION TO CRITICAL THINKING
Units: 3.0 - 48-54 hours lecture. CSU,UC. (Prerequisite: ENGL 101.0 or ENGL H101)

Study and practice in critical thinking and advanced English composition: analysis, evaluation, and formulation of arguments; critical study of texts; and composition of critical essays. Application of critical thinking and writing skills to topics in the areas of values and religion. See cross listing for PHIL 207.

RLST 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

RLST 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

RESPIRATORY THERAPY

Respiratory therapy is an allied health profession specializing in the diagnosis, treatment, and care of patients suffering from cardiopulmonary disease.

The program provides didactic instruction and supervised clinical practice in Inland Empire hospitals. Graduates of the VVC Respiratory Therapy Program, as a result of the education and training they receive, pass the state licensing and national registry exams at a rate much greater than the national average. The Victor Valley College Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 1248 Harwood Road, Bedford, TX 76021-4244, (817) 283-2835.

Separate application must be made to the Respiratory Therapy Program. Seating is limited to a maximum of twenty-five students per class.

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

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

Faculty
Full Time
Traci Marin
Russell McCord

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

Certificate Program

RESPIRATORY THERAPY (A.S. AND CERTIFICATE)

Units Required: 82.0 minimum

This certificate prepares the student to take the State examination to practice as an entry level practitioner and the National Examination for Advanced level practitioner.

Group A: All of the following must be completed:

RSPT 50	Polysomnography I	4.0
RSPT 230	Introduction to Respiratory Therapy	3.0
RSPT 231	Orientation to and Basic Fundamentals of Respiratory Therapy	10.0
RSPT 232	Patient Assessment and Clinical Application of Respiratory Care	10.0
RSPT 233	Intensive Respiratory Care and Advanced Pulmonary Physiology	13.0
RSPT 234	Neonatal and Pediatric Respiratory Care and Pathophysiology and Pulmonary Rehabilitation	13.0
RSPT 239	Introduction to Continuous Mechanical Ventilatory Support	2.0
BIOL 211	Human Anatomy	5.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	5.0
ENGL 101	English Composition and Reading	4.0
PSYC 101	General Psychology	3.0

Group B: One of the following must be completed:

CMST 106	Interpersonal Communication	3.0
CMST 107	Family Communication	3.0
CMST 108	Group Discussion	3.0
CMST 109	Public Speaking	3.0

Group C: One of the following must be completed:

One course which meets the VVC Logic/Mathematical general education requirements for Category V

Group D: One of the following must be completed:

One course which meets the VVC Humanities general education requirements for Category III

Group E: One of the following must be completed:

One Physical Education Course

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

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

The Associate Degree in Respiratory Therapy provides a foundation for continuing personal, professional and educational development, and includes the study of the arts, sciences and humanities. The program is designed to produce a competent, self-directed respiratory therapist who, in a variety of settings, can assume leadership in planning, providing, and evaluating respiratory care of individuals and groups; who participates in the determination of the goals of the

profession; and who actively searches for knowledge in respiratory therapy and related fields essential to the development and application of scientific respiratory care.

The respiratory therapy graduate receives the Associate of Science Degree and is eligible to take the National Registry Exam for Respiratory Therapists and the entry level exam for licensure in the State of California.

In order to be admitted to the Respiratory Therapy Program, separate application must be made in addition to application to the college. The annual deadline date for submitting applications to be considered for respiratory therapy is March 15. Applications can be obtained through the Allied Health Office or the Counseling Department. Prerequisites: CHEM 100, BIOL 100 or 107, and MATH 90 must be completed with a grade of "C" or higher before entry into the program.

Associate Degree
To earn an Associate in Science degree with a major in Respiratory Therapy, complete all requirements for the Respiratory Therapy Certificate. The Respiratory Therapy Certificate above includes all requirements for both a certificate and an Associate in Science degree in Respiratory Therapy.

Transfer
A handout with all transfer requirements for a B.S. degree in Health Care Services, Respiratory Therapy, and other related medical degrees from Loma Linda University is available in the Counseling Department, or visit www.llu.edu.

RESPIRATORY THERAPY COURSES

RSPT 50 POLYSOMNOGRAPHY I
Units: 4.0 - 48-54 hours lecture and 48-54 hours laboratory. (No prerequisite) This course may be taken four times.

Topics include sleep terminology, sleep structure and disorders, complete patient set-up and data acquisition. Students will also learn the basics of noninvasive treatments for certain sleep disorders.

RSPT 90 ECHOCARDIOGRAPHY 1
Units: 10.0 - 64-72 hours lecture and 288-324 hours laboratory. (No prerequisite. Recommended preparation: BIOL 211, BIOL 231 and MATH 90.)

This course is designed to prepare students for an entry level career in a hospital or clinic as an echocardiographer. Topics include physics, instrumentation, cardiac anatomy and physiology, cardiac disease specific calculations, standard exam calculations and protocol.

RSPT 91 ECHOCARDIOGRAPHY 2
Units: 10.0 - 64-72 hours lecture and 288-324 hours laboratory. (No prerequisite. Recommended preparation: RSPT 90.)

This course expands on echocardiography subjects presented in RSPT 90. Topics include assessment of pericardial diseases, vascular disorders, electrocardiogram (ECG) and advanced topics.

RSPT 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

RSPT 149 INDEPENDENT STUDY
See Independent Study listing (1-3 units)

RSPT 230 INTRODUCTION TO RESPIRATORY THERAPY
Units: 3.0 - 48-54 hours lecture. CSU. (Prerequisite: MATH 50, CHEM 100 or CHEM H100, BIOL 100 or BIOL H100, BIOL 107 or BIOL H107 and formal admission to the Respiratory Therapy Program)

Introduces the student to respiratory therapy as a health science profession, including history, professional requirements, responsibilities, professional organizations, and credentialing of the respiratory care practitioner. Provides basic anatomy and physiology, physics and math, and basic cardio-pulmonary pathology in order to give the student a foundation of theory and application.

RSPT 231 ORIENTATION TO THE BASIC FUNDAMENTALS OF RESPIRATORY THERAPY
Units: 10.0 - 64-72 hours lecture and 324 hours laboratory. CSU. (Prerequisite: RSPT 230 with a grade of "C" or better.)

This course continues with a more advanced discussion of medical terminology, anatomy, physiology and cardiopulmonary pathology as it relates to the clinical applications of medial gas therapy, humidity and aerosol therapy, therapeutic and diagnostic modalities, and infection control. Students will be provided with an extensive orientation to the hospital environment and the administration of basic respiratory therapy to patients.

RSPT 232 PATIENT ASSESSMENT AND CLINICAL APPLICATION OF RESPIRATORY THERAPY
Units: 10.0 - 64-72 hours lecture and 288-324 hours clinical. CSU. (Prerequisite: RSPT 231 with a grade of "C" or better)

This course is a more in-depth study of the theory and application of respiratory therapy. Its content includes airway management, pulmonary assessment, advanced cardiopulmonary physiology and the pharmacology associated with pulmonary patients. The student will

spend 16 hours a week in the hospital administrating respiratory modalities to patients.

RSPT 233 INTENSIVE RESPIRATORY CARE AND ADVANCED PULMONARY PHYSIOLOGY
Units: 13.0 - 64-72 hours lecture and 54 hours laboratory plus 432 hours clinical. CSU. (Prerequisite: RSPT 239, BIOL 211, BIOL 231, with a grade of "C" or better.)

A more advanced study of the theory and application of respiratory care. The content will include: mechanical life support, respiratory physiology, equipment utilized in the critical care unit, microbiology, arterial puncture and analysis, endo-tracheal intubation, and principles of advanced cardiac life support.

RSPT 234 NEONATAL AND PEDIATRIC RESPIRATORY CARE AND RELATED PATHOPHYSIOLOGY
Units: 13.0 - 64-72 hours lecture. 48-54 hours laboratory and 384-432 hours clinical CSU. (Prerequisite: RSPT 233 and BIOL 221 with a grade of "C" or better)

This course is a more advanced study of the theory and application of neonatal/pediatric respiratory care. The content will include: mechanical life support, respiratory pathophysiology, equipment utilized in the NICU/PICU, microbiology, umbilical line, capillary blood samples and analysis, endotracheal intubation, and principles of PALS and NRP.

RSPT 239 INTRODUCTION TO CONTINUOUS MECHANICAL VENTILATORY SUPPORT
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (Prerequisite: Completion of RSPT 232 with a "C" or better)

This course introduces the principles of mechanical ventilation, allows hands-on experience with current ventilators, and reinforces therapeutic care.

RSPT 241 BASIC PRINCIPLES OF RESPIRATORY THERAPY
Units: 5.0 - 160 hours laboratory. CSU. (Prerequisite: Graduation from a one-year, CoARC accredited program; active CRT/RCP credential; and 1000+ hours of recent clinical experience.)

A self-paced equivalent of RSPT 231 for students meeting the advanced placement criteria. Successful completion requires demonstration of mastery of the classroom, laboratory, and clinical objectives equivalent to RSPT 231.

RSPT 242 PATIENT ASSESSMENT AND CLINICAL APPLICATION OF RESPIRATORY CARE
Units: 5.0 - 160 hours laboratory. CSU. (Prerequisite: Graduation from a one-year, CoARC accredited program; active CRT/RCP credential; and 1000+ hours of recent clinical experience.)

A self-paced equivalent of RSPT 232 for students meeting the advanced standing criteria. Successful completion requires demonstration of mastery for the classroom, laboratory and clinical objectives equivalent to RSPT 232.

RSPT 243 CLINICAL SIMULATION
Units: 1.0 - 16-18 hours lecture. (Prerequisite: Satisfactory completion of RSPT 233 with a grade of "C" or better OR RCP/CRT credentials with "registry eligibility" as designated by the NBRC/RCB.)

This course will prepare individuals for the NBRC's WRRT and Clin Sim examinations. Those already certified (CRT) and designated registry eligible by NBRC will be able to review, evaluate, and improve their clinical assessment and decision-making skills and test taking skills.

RESTAURANT MANAGEMENT

The Restaurant Management program prepares students for careers in the foodservice industry. Restaurants, hotels, clubs, colleges, retirement homes, hospitals, and industrial food service are but a few of the areas of employment options. Basic food preparation and techniques, nutrition, sanitation and safety are emphasized as the fundamentals for an education foundation of more specialized and advanced skills. Creativity, innovation, and team concepts are strongly encourage. Skills are introduced by emphasizing hands-on, practical experience coupled with strong managerial and accounting subjects.

ManageFirst PROGRAM™

Locally projected casinos, hotels, and national chain restaurants will increase various employment opportunities to High Desert graduates. Restaurant Management is one of the original partners with the National Restaurant Association Educational Foundation and offers students the opportunity to complete the nationally recognized ManageFirst program. This program is dedicated to the advancement of professionalism in the restaurant and food service industry through education and training. It offers students acknowledgement throughout the United States.

Career Opportunities
Assistant Manager
Banquet Manager
Catering Manager
Chef
Dietary Assistant
Dining Room Manager
Food and Beverage Director
Foodservice/Restaurant Manager
Kitchen Manager
Purchasing Agent

Faculty
Full Time
Debbie Peterson, Senior Instructional Assistant
Emeritus
Duane Buckles

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

Certificate Program

RESTAURANT MANAGEMENT CERTIFICATE

Units Required: 51.0

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

Note: BOLD indicates ManageFirst curriculum. Individual certificates issued by the National Restaurant Association Education Foundation are available in these areas.

All of the following must be completed:

First Semester:

RMGT 81	Prep/Line Cook	3.0
RMGT 82	**Customer Service**	**3.0**
RMGT 86	**Food Service Sanitation**	**3.0**
RMGT 87	Principles of Professional Cooking	3.0

Second Semester:

RMGT 83	Kitchen/Dining Room Training	6.0

and

Two academics offered on a rotating basis. Completing two courses from the list below will satisfy the six units required.

RMGT 88	**Management by Menu**	**3.0**
RMGT 89	**Purchasing for Foodservice Managers**	**3.0**
RMGT 90	**Restaurant Marketing**	**3.0**
RMGT 91	**Controlling Foodservice Costs**	**3.0**
RMGT 93	**Human Resources Management in the Foodservice Industry**	**3.0**
RMGT 94	**Hospitality and Restaurant Management**	**3.0**

Third Semester:

RMGT 84	Kitchen/Dining Room Management	6.0

and

Two academics offered on a rotating basis. Completing two courses from the list below will satisfy the six units required.

RMGT 88	**Management by Menu**	**3.0**
RMGT 89	**Purchasing for Foodservice Managers**	**3.0**
RMGT 90	**Restaurant Marketing**	**3.0**
RMGT 91	**Controlling Foodservice Costs**	**3.0**
RMGT 93	**Human Resources Management in the Foodservice Industry**	**3.0**
RMGT 94	**Hospitality and Restaurant Management**	**3.0**

Fourth Semester:

RMGT 85	Advanced Restaurant Management	6.0

and

Two academics offered on a rotating basis. Completing two courses from the list below will satisfy the six units required.

RMGT 88	**Management by Menu**	**3.0**
RMGT 89	**Purchasing for Foodservice Managers**	**3.0**
RMGT 90	**Restaurant Marketing**	**3.0**
RMGT 91	**Controlling Foodservice Costs**	**3.0**
RMGT 93	**Human Resources Management in the Foodservice Industry**	**3.0**
RMGT 94	**Hospitality and Restaurant Management**	**3.0**

Summer or Winter Session:

RMGT 120	Nutrition	3.0

Associate Degree
To earn an Associate of Science degree with a major in Restaurant Management, complete the above Restaurant Management Certificate requirements and meet all Victor Valley College graduation requirements.

Transfer
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 CSU campuses offer degrees in these areas: Cal Poly Pomona, CSU-Long Beach, San Diego State, San Francisco State, and San Jose State.

Visit www.assist.org for major preparation requirements.

Students may also wish to explore programs at the California Culinary Academy in San Francisco, or The Culinary Institute of America in New York, which also has a Napa Valley campus (Greystroke) in St. Helena, and a campus in San Antonio, Texas. Another institution is Le Cordon Bleu College of Culinary Arts in Pasadena. These colleges specialize in preparing a student to become a chef.

RESTAURANT MANAGEMENT COURSES

RMGT 1 FOODSERVICE TRAINING: SERVER
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

This course will provide the student the opportunity to meet the primary role of the server in a foodservice establishment. The responsibility to meet the customer's dining needs is emphasized while maintaining the systems of the restaurant to ensure continued high quality service to all customers and maximize 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.

RMGT 2 FOODSERVICE TRAINING: PREP/LINE COOK
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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.

RMGT 3 FOODSERVICE TRAINING: HOST/HOSTESS
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

This course will provide the student the opportunity to develop the skills for a host/hostess 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 maximize profitability for the operation. This course will not apply to the Associate Degree.

RMGT 4 FOODSERVICE TRAINING: BUSSER
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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 maximize profitability for the operation. This course will not apply to the Associate Degree.

RMGT 5 FOODSERVICE TRAINING: CASHIER
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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 maximize profitability for the operation. This course will not apply to the Associate Degree.

RMGT 6 FOODSERVICE TRAINING: DISHWASHER
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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 maximize profitability for

the operation This course will not apply to the Associate Degree.

RMGT 7 BAKERY AND PASTRY TRAINING
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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.

RMGT 8 CATERING TRAINING
Units: 4.5 - 24-27 hours lecture and 144-162 hours laboratory. (No prerequisite. Pass/No Pass.)

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.

RMGT 9 CONCEPTS IN SANITATION
Units: 0.5 - 24-27 hours lecture. (No prerequisite. Pass/No Pass)

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. This course is designed to meet current professional organization certification requirements and prepares the student for the National Food Certification examination (ServSafe). This course will not apply to the Associate Degree.

RMGT 75 UNDERSTANDING FISH AND SHELLFISH
Units: 2.0 - 32-36 hours lecture. (No prerequisite.)

This course will examine the professional techniques of identifying, purchasing, handling, storing and the marketing of fish and shellfish. It also includes identifying, cutting, filleting, and preparing various fish and seafood.

RMGT 76 UNDERSTANDING MEATS AND POULTRY
Units: 2.0 - 32-36 hours lecture. (No prerequisite.)

This course will examine the professional techniques of identifying, purchasing, handling, and storing of various meats and poultry. It also includes identifying, cutting, filleting, and preparing various meats and poultry.

RMGT 80 OFF-PREMISE CATERING
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This is a comprehensive course covering the fundamentals of catering, sales and marketing as it pertains to catering, and production of operations. Subjects covered include corporate catering, styles of service, finance, completion of necessary forms and paperwork related to catering.

RMGT 81 PREP/LINE COOK
Units: 3.0 -32-36 hours lecture and 48-54 hours laboratory. (No prerequisite.)

This course will provide the student with basic and essential training as a prep/line cook. This training includes understanding culinary terminology, proper use experience is gained through activities performed in the lab.

RMGT 82 CUSTOMER SERVICE
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. (No prerequisite.)

This course will provide the student with the basic and essential training as a server. This training includes understanding customer service, interpersonal communication, identifying customer expectations, as well as payment procedures. Practical training experience is gained through activities performed in the lab.

RMGT 83 KITCHEN/DINING ROOM TRAINING
Units: 6.0 - 32-36 hours lecture and 192-216 hours laboratory. (Prerequisites: RMGT 81, RMGT 82, RMGT 86, RMGT 87.)

This course will instruct the student in the different positions in a kitchen and dining room in the foodservice industry. Actual hands-on experience is gained as students learn by working in a foodservice operation. Students will be required to be team leaders for beginning students in the lab.

RMGT 84 KITCHEN/DINING ROOM MANAGEMENT
Units: 6.0 - 32-36 hours lecture and 192-216 hours laboratory. (Prerequisite: RMGT 83.)

This course will instruct the student to manage kitchen and dining room functions in a foodservice operation. While planning, organizing, coordinating, directing and controlling a foodservice operation, students will supervise teams as part of the training.

RMGT 85 ADVANCED RESTAURANT MANAGEMENT
Units: 6.0 - 32-36 hours lecture and 192-216 hours laboratory. (Prerequisite: RMGT 84.)

This course will instruct the student to integrate concepts of management skills learned in previous courses. It introduces a more extensive range of techniques, ingredients, and recipes that all successful managers must understand relating to culinary change and innovation.

RMGT 86 FOOD SERVICE SANITATION
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course provides students with the knowledge to assess risks, establish policies and train employees to assure a safe and sanitary food service.

RMGT 87 PRINCIPLES OF PROFESSIONAL COOKING
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course provides an understanding of cooking theory and develops a set of manual skills with the ability to apply these skills to a wide range of cooking styles and products.

RMGT 88 MANAGEMENT BY MENU
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course will provide the student with a comprehensive look at the menu and its uses in a foodservice operation. All aspects of menu planning from customer demographics to kitchen capabilities, to cost cards and menu analysis are discussed.

RMGT 89 PURCHASING FOR FOODSERVICE MANAGERS
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course will introduce the student to the purchasing function in the foodservice industry. Course content will include purchasing principles and procedures including ordering, contract administration and product specifications.

RMGT 90 RESTAURANT MARKETING
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course examines the concepts, principles and practices involved with marketing a foodservice operation. Students will gain an understanding of how to merchandise and market an establishment to meet the main objective of an operation.

RMGT 91 CONTROLLING FOODSERVICE COSTS
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course will provide the student with the basic cost control standards utilized by foodservice operations to maintain profitability and success. Students will gain an understanding of food costs as well as labor costs and ways to ensure prosperity and increased sales for a foodservice operation.

RMGT 92 LEGAL ASPECTS OF FOOD SERVICE MANAGEMENT
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course focuses on the fundamentals of laws relating to the hospitality industry. Basic components of hospitality law regulations and civil rights, foodservice liability, safety, security, contracts and business law topics are examined.

RMGT 93 HUMAN RESOURCES MANAGEMENT IN THE FOODSERVICE INDUSTRY
Units: 3.0 - 48-54 hours lecture. (No prerequisite.)

This course will provide the student the opportunity to explore human resources management and supervision in a foodservice operation. All facets of supervision as it applies to a foodservice operation will be discussed including recruiting, selection, training and development, staffing, benefit programs as well as legal guidelines for all employees.

RMGT 94 HOSPITALITY AND RESTAURANT MANAGEMENT
Units: 3.0 -48-54 hours lecture. (No prerequisite.)

This course provides the student with a comprehensive focus on what hospitality managers actually do and the most important challenges facing industry leaders today. The topics include leadership and management, planning, organizing, communication and decision making, motivation and control.

RMGT 120 INTRODUCTION TO NUTRITION
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite). See cross listing for CHEM 120.

This course focuses on the fundamentals of nutrition as related to the restaurant and food service industry. Course content will include the fundamentals of nutrients, understanding nutrition standards and guidelines, and eating in the United States

RMGT 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

SOCIAL SCIENCES

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Refer to the Social Science teaching credential option listed in CSU-SB's Catalog, or visit www.assist.org.

Local Bachelors Program
For information on the following program located in the High Desert, please visit: www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets":

- **Brandman University, Victor Valley Campus**
  Social Science major

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.

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

Faculty
Full Time
Gene Tashima

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Sociology. Sociology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. SOC 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Sociology major
  Human Services major

- **University of California, Riverside**
  Sociology major

Local Bachelors Program
For information on the following program located in the High Desert, please visit: www.vvc.edu/offices/guidance and counseling/ and select "Counseling Information Sheets":

- **Brandman University, Victor Valley Campus**
  Sociology major

SOCIOLOGY COURSES

SOC 50 SOCIOLOGY OF PARENTING
Units: 3.0 - 48-54 hours lecture. (No prerequisite)

This course provides an introduction to the challenges, risks and changes caused by parenthood, the impact of parenting styles on the development of children, the effect of socio-cultural roles in parenting, and the dynamics of adult/child relationships. It further provides strategies, skills and resources to promote healthy family living.

SOC 101 INTRODUCTION TO SOCIOLOGY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite).

This course is a survey of the various characteristics of social life, the process of social interaction and the tools of sociological investigation. Emphasis is on culture, socialization, and basic institutions.

SOC 102 AMERICAN SOCIAL PROBLEMS
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This one semester survey course will focus on identification of major sociological theories, concepts, and perspectives in an analytical approach to the study of social problems in contemporary American society.

SOC 103 MARRIAGE AND FAMILY LIFE
Units: 3.0 -48-54 hours lecture. CSU. (No prerequisite)

This course is a survey of analytical and theoretical concepts involved in the sociological study of courtship, marriage and family in American society.

SOC 107 THE ETHNIC EXPERIENCE IN AMERICAN SOCIETY
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite.)

This is a one semester sociological survey of major racial/ethnic groups in American society. This course will focus on historical experiences and their relationship to contemporary social realities faced by these racial/ethnic groups in American society. It will also investigate their contributions and special experiences as minorities.

SOC 128 SPECIAL TOPICS
See Special Topics listing (Variable units). CSU, UC.

SOC 129 INDEPENDENT STUDY
See Independent Study listing (1-3 units). CSU

SOC 138 COOPERATIVE EDUCATION
See Cooperative Education listing (1-8 units). CSU

SPANISH

The study of Spanish has as its goals to explain, evaluate and communicate ideas and concepts by means of reading, writing and verbal processes through creative use of words (literature) and culture (civilization). This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities
Advertising
Business
Education
Government
Health Service
Journalism
Law Enforcement
Publishing
Social Work
Translating

Faculty
Full Time
Cuauhtemoc Franco
Dolores Hinson
Martha Vila

Degrees and Certificates Awarded
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

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

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Spanish major
- **University of California, Riverside**
  Spanish major

SPANISH COURSES

SPAN 101 ELEMENTARY SPANISH
Units: 5.0 - 80-90 hours lecture. CSU, UC. (No prerequisite)

This course provides an introduction to the Spanish language and the culture of its speakers. Fundamentals of pronunciation, structure and Hispanic culture are studied to develop the ability to use and understand basic spoken and written Spanish. Special emphasis is given to development of oral and aural skills by use of the language lab.

SPAN 101A FUNDAMENTALS OF SPANISH 101A
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

This course provides an introduction to the Spanish language and culture. Fundamentals of pronunciation, structure and Hispanic culture are studied. Special emphasis is given to development of oral and aural skills. SPAN 101A and SPAN 101B must be taken to get credit for SPAN 101. Upon completion of SPAN 101A and SPAN 101B, CSU will only accept five units for transfer.

SPAN 101B Fundamentals of Spanish 101B
Units: 3.0 - 48-54 hours lecture. CSU, UC. (Prerequisite: SPAN 101A with a grade of 'C' or better.)

This course is a continuation of SPAN 101A. It provides an introduction to Spanish language and culture. Fundamentals of pronunciation, structure and Hispanic culture are studied. Special emphasis is given to development of oral and aural skills. SPAN 101A and SPAN 101B must be taken to get credit for SPAN 101. Upon completion of SPAN 101A and SPAN 101B, CSU will only accept five units for transfer.

SPAN 102 Elementary Spanish
Units: 5.0 - 80-90 hours lecture and 16-18 hours laboratory. CSU,UC. (Prerequisite: Completion of SPAN 101 with a minimum grade of 'C' or SPAN 101A and SPAN 101B.)

This course is a continuation of SPAN 101. Further study of pronunciation, structure and Hispanic culture to develop the ability to use and understand basic spoken and written Spanish. Use of language laboratory is required in order to continue the development of oral and aural skills.

SPAN 103 Intermediate Spanish
Units: 3.0 - 48-54 hours lecture. CSU,UC. (Prerequisite: Completion of SPAN 102 with a minimum grade of 'C'.)

Provides an expanded review of key grammatical concepts and develops vocabulary with emphasis on composition, reading and discussions in Spanish. Students study Hispanic cultures based on cultural and literary materials.

SPAN 104 Intermediate Spanish
Units: 3.0 - 48-54 hours lecture. CSU,UC. (Prerequisite: Completion of SPAN 103 with a minimum grade of 'C' or three years of high school Spanish)

A continuation of an expanded review of key grammatical concepts and develops vocabulary with emphasis on composition, reading and discussions in Spanish. Students study Hispanic cultures based on cultural and literary materials.

SPAN 110 Spanish for Spanish Speakers
Units: 3.0 - 48-54 hours lecture. CSU (No prerequisite. Recommended: Ability to speak Spanish.)

Designed to fulfill the particular needs of bilingual students with special emphasis on the grammar of the language and the development of writing, reading and speaking skills. Conducted in Spanish.

SPAN 125 Conversational Spanish I
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite. Grade Option)

This is the first of two courses covering the essentials of Spanish conversation. It is a basic introductory course which emphasizes oral practice, pronunciation and vocabulary development. It is designed to develop a speaking and understanding knowledge of Spanish for use in everyday conversational situations. This course is designed for non-native speakers of the language.

SPAN 126 Conversational Spanish II
Units: 3.0 - 48-54 hours lecture. (Prerequisite: SPAN 125 or the ability to speak Spanish with a level of fluency equivalent to completion of SPAN 125. Grade Option.)

This is the second of two courses designed to increase listening comprehension and speech skills in everyday conversational situations in Spanish. Course designed for non-native speakers of the language. This course is an introduction to more complex Spanish structures and grammar with emphasis on the spoken language. CSU.

SPAN 128 Special Topics
See Special Topics listing (Variable units). CSU, UC.

SPAN 129 Independent Study
See Independent Study listing (1-3 units).

SPAN 130 Conversational Spanish for Healthcare Professionals I
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

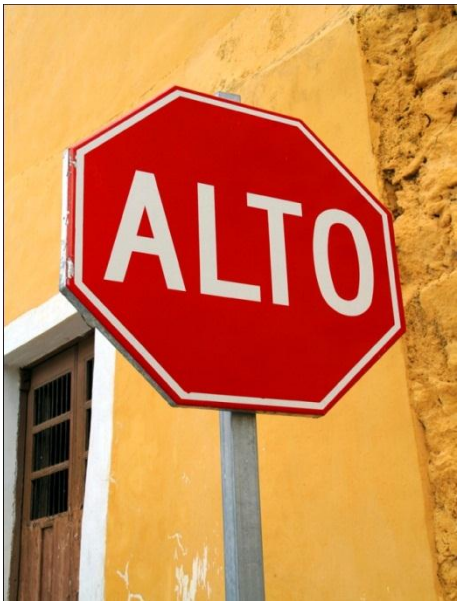
This course is directed towards the needs of nursing and healthcare students, as well as other medical and hospital personnel, who must communicate quickly and effectively with Spanish-speaking patients. Conducted in Spanish and English.

SPAN 131 Conversational Spanish for Healthcare Professionals II
Units: 3.0 - 48-54 hours lecture. (Prerequisite: SPAN 130 with a grade of "C" or higher or consent of instructor. Grade Option.)

This course is a continuation of SPAN 130. It provides intermediate conversational skills for nursing and health-care students as well as other medical and hospital personnel who must communicate quickly and effectively with Spanish-speaking patients. Conducted in Spanish and English.

SPAN 135 Spanish for Business
Units: 3.0 - 48-54 hours lecture. CSU. (No prerequisite)

This course is designed to give students a foundation in Spanish business terminology and prepare them with the knowledge necessary to function in business and professional settings in Spanish speaking countries and where Spanish is used in the U.S. Emphasis will be placed on acquiring basic communication skills and specialized vocabulary for topics related to business and finance. Course is conducted mainly in Spanish.



SPECIAL TOPICS COURSES

SPECIAL TOPICS 98-128-148
Units: 0.5-9.0 - (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).

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 128 and 148 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.)

SPEECH COMMUNICATIONS

See "Communication Studies"

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.

Career Opportunities
Actor/Actress
Choreographer
Costumer
Makeup Artist
Publicist
Scene Designer
Screenwriter
Sound Technician
Stage Director
Teacher

Faculty
Full Time
Ed Heaberlin
Steve McDevitt
John Rude
Theresa Mirci-Smith

Degrees and Certificates Awarded
Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts

Certificate Program
No certificates awarded.

Associate Degree
No associate degree offered with a major in Theatre Arts. Theatre Arts courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. TA 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer
To pursue a bachelor's degree in this field, here are some schools that have programs that might interest you. For the most up-to-date information on these programs and others, visit www.assist.org. Please stop by the Transfer Center in Building 55 or make an appointment with a counselor if you have questions.

- **California State University, San Bernardino**
  Theatre Arts major
- **University of California, Riverside**
  Theatre Arts major

THEATRE ARTS COURSES

TA 101 Introduction to Theatre
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

TA 102 History of Theatre
Units: 3.0 - 48-54 hours lecture. CSU,UC. (No prerequisite)

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.

TA 104 Oral Interpretation of Literature
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

A course designed for the student to learn to interpret literature for an audience. Students will learn and be evaluated on: doing performance analyses, developing relevant introductions, communicating a relevant theme, executing proper character placement and focus, using effective vocal skills, using effective physical involvement. Students will demonstrate proficiency in the above through solo and ensemble class presentations.

TA 106 Beginning Acting
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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.

TA 107 Intermediate Acting
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite.)

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.

TA 109 Rehearsal and Performance Studio
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU, UC. (Prerequisite: Qualify for cast at open auditions. TA 106 recommended) This course may be taken four times.

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.

TA 110 Principles of Design for Theatre
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite.) This course may be taken two times.

An introductory course in design principles as applied to the theatre in the areas of lighting, costuming, makeup, and set design. 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.

TA 111 Technical Stage Production
Units: 3.0 - 16-18 hours lecture and 96-108 hours laboratory. CSU, UC. (No prerequisite.) This course may be taken four times.

This course is an introduction to the tasks, responsibilities, and skills of stage technicians. 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.

TA 113 Stage Make-up
Units: 3.0 - 16-18 hours lecture and 96-108 hours laboratory. CSU. (No prerequisite) This course may be taken three times.

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, wig, and facial hair applications in the classroom.

TA 115 Stagecraft
Units: 2.0-4.0 - 16-18 hours lecture and 48-54 hours laboratory per unit per term. CSU, UC. (No prerequisite)

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.

TA 116 Authors of the Theatre
Units: 3.0 - 48-54 hours lecture. CSU, UC. (No prerequisite)

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. See cross listing for ENGL 116.

TA 117 Technical Theatre: Lighting and Sound
Units: 3.0 - 32-36 hours lecture and 48-54 hours laboratory. CSU, UC. (No prerequisite)

A basic course in theatre lighting and sound systems including electrical theory, instruments and lamps, light and sound plots, sound recording, microphones, speakers, etc. Emphasis is on hands-on control and adjustment of the equipment.

TA 120 Costuming for the Theatre
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. CSU, UC (No prerequisite) This course may be taken four times.

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.

TA 128 Special Topics
See Special Topics listing (Variable units). CSU, UC.

TA 129 Independent Study
See Independent Study listing (1-3 units). CSU

TA 138 Cooperative Education
See Cooperative Education listing (1-8 units). CSU, UC

TA 160 Tap I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Development of basic knowledge and skill in tap dancing, commonly used in musical productions and theater. See cross listing for PEDA 160.

TA 161 Tap II
Units: 1.0 - 48-54 hours laboratory. CSU, UC. Student may be required to audition and be approved by instructor for entrance to class. (Grade option) This course may be taken four times.

Development of intermediate knowledge of skill in tap dancing, commonly used in musical productions and theater. See cross listing for PEDA 161.

TA 166 Ballet I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning ballet dance. Emphasis on exploring the movement characteristics of ballet through dancing. See cross listing for PEDA 166.

TA 167 Ballet II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of secondary level II ballet dance. Emphasis on exploring the movement characteristics of level II ballet through dancing. See cross listing for PEDA 167.

TA 170 Jazz Dance I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning jazz dance. Emphasis on exploring the movement characteristics of jazz through dancing. See cross listing for PEDA 170.

TA 171 Jazz Dance II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of level II jazz dance. Emphasis on exploring the movement characteristics of secondary level of jazz through dancing. See cross listing for PEDA 171.

TA 174 Modern Dance I
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of beginning modern dance. Emphasis on exploring the movement characteristics of level I modern dance through dancing. See cross listing for PEDA 174.

TA 175 Modern Dance II
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of secondary level II modern dance. Emphasis on exploring the movement characteristics of secondary level II modern dance through dancing. See cross listing for PEDA 175.

TA 266 Ballet III
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III ballet dance. Emphasis on exploring the movement characteristics of intermediate level III ballet through dancing. See cross listing for PEDA 266.

TA 267 Ballet IV
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of advanced level IV ballet dance. Emphasis on exploring the movement characteristics of advanced level IV ballet dance through dancing. See cross listing for PEDA 267.

TA 270 Jazz Dance III
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III jazz dance. Emphasis on exploring the movement characteristics of intermediate level III jazz through dancing. See cross listing for PEDA 270.

TA 271 Jazz Dance IV
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of level IV jazz dance. Emphasis on exploring the movement characteristics of advanced level IV jazz through dancing. See cross listing for PEDA 271.

TA 274 Modern Dance III
Units: 1.0 - 48-54 hours laboratory. CSU, UC (No prerequisite. Grade option) This course may be taken four times.

Technique and style of intermediate level III modern dance. Emphasis on exploring the movement characteristics of intermediate level III modern dance through dancing. See cross listing for PEDA 274.

TA 275 Modern Dance IV
Units: 1.0 - 48-54 hours laboratory. CSU (No prerequisite. Grade option) This course may be taken four times.

Technique and style of advanced level IV modern dance. Emphasis on exploring the movement characteristics of advanced level IV modern dance through dancing. See cross listing for PEDA 275.

VISUAL COMMUNICATION

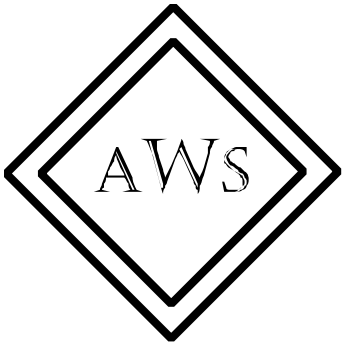
See **"Computer Integrated Design and Graphics"**

WELDING

This program prepares students to enter welding-related occupations, offers retraining for those seeking a new career, and provides an opportunity for those employed in welding occupations to learn new skills and upgrade themselves in their positions.

The department is a member of the American Welding Society's Educational Institution Program for entry level welders and is entitled to all the privileges. This entry level welder program is part of the National Skills Standards Program, which is being enacted across a wide range of industries in the United States.

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.



Educational Institution Member

Career Opportunities
Boilermakers
Iron Workers
Maintenance Worker
Millwrights
Sheet Metal Workers
Welder
Welder-Fitter
Welding Estimator
Welding Inspector
Welding Instructor
Welding Operator
Welding Sales Representative
Welding Service Representative
Welding Supervisor
Welding Technician

Faculty
Full Time
Gary Menser

Degrees and Certificates Awarded
Associate in Science, Welding
Welding Certificate

Certificate Program

WELDING CERTIFICATE

Units Required: 20.0

The Welding Technology courses included in the certificate program will give the students the skills necessary to become an entry-level combination welder.

All of the following must be completed:

WELD 51	Oxyacetylene Welding, Cutting, and Brazing	3.5
WELD 52	Shielded Metal Arc Welding-Basic	3.5
WELD 53	Shielded Metal Arc Welding Advanced	4.0
WELD 57A	Gas Tungsten Arc Welding-Basic	2.0
WELD 57B	Gas Tungsten Arc Welding Advanced	2.0
WELD 58A	Gas Metal Arc Welding-Basic	2.0
WELD 58B	Gas Metal Arc Welding-Advanced	2.0
WELD 59	Welding Symbols and Blueprint Reading	1.0

Associate Degree
To earn an Associate in Science degree with a major in Welding, complete 18 units from Welding courses and meet all Victor Valley College graduation requirements. WELD 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer
Not a transfer major.

WELDING COURSES

WELD 50 Introduction to Welding
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite)

Survey course in arc and oxyacetylene welding which covers safety practices, use of equipment, and oxyacetylene cutting and braze welding.

WELD 51 Oxyacetylene Welding, Cutting and Brazing
Units: 3.5 - 32-36 hours lecture and 72-81 hours laboratory. (No prerequisite)

Develops entry-level skills for the welder in gas welding, braze welding, and cutting.

WELD 52 Shielded Metal Arc Welding - Basic
Units: 3.5 - 32-36 hours lecture and 72-81 hours laboratory. (No prerequisite.)

Develops entry-level shielded metal arc welding (SMAW) skills for the welder.

WELD 53 Shielded Metal Arc Welding – Advanced
Units: 4.0 **-** 32-36 hours lecture and 96-108 hours laboratory. (No prerequisite)

Develops skills to produce high quality multi-pass all position groove welds with and without backing.

WELD 54 Preparation for Welder Certification
Units: 1.0 - 16-18 hours lecture. (No prerequisite)

This course prepares the welder to take the Los Angeles Department of Building and Safety written examination required for the L.A. City welding license.

WELD 57A Gas Tungsten Arc Welding – Basic
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite)

Develops entry-level gas tungsten arc welding skills; setting up and adjusting equipment, and in position welding on mild steel, stainless steel, and aluminum.

WELD 57B Gas Tungsten Arc Welding – Advanced
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite)

Develops advanced gas tungsten arc welding skills in out-of-position welding on mild steel, stainless steel, and aluminum.

WELD 58A Gas Metal Arc Welding – Basic
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite)

Develops entry-level skills in gas metal arc welding. Specifically develops skills on all position groove and fillet welds, set-up, adjustment and equipment maintenance.

WELD 58B Gas Metal Arc Welding – Advanced
Units: 2.0 - 16-18 hours lecture and 48-54 hours laboratory. (No prerequisite)

Develops advanced skills in gas metal arc welding. Specifically develops skills on single-vee groove butt joints in all positions and welder qualification practice.

WELD 59 Welding Symbols and Blueprint Reading
Units: 1.0 - 16-18 hours lecture. (No prerequisite)

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.

WELD 60A/B/C/D Welding Laboratory
Units: 1.0-2.0 - 48-54 hours of laboratory for one unit of credit. (No prerequisite)

A laboratory class to develop skills in oxyacetylene welding, arc welding, gas tungsten arc welding, flux cored arc welding and welder qualification preparation.

WELD 98 Special Topics
See Special Topics listing (Variable units).

WELD 99 Independent Study
See Independent Study listing (1-3 units).

WELD 138 Cooperative Education
See Cooperative Education listing (1-8 units). CSU

NONCREDIT CLASSES

BASIC SKILLS/ EDUCATIONAL UPGRADE COURSES

ACOM 12 Adult Literacy – Units: 0.0

An open entry/open exit class designed for persons unable to read beyond the 4th grade level. Students will receive individualized instruction.

ACOM 30 Citizenship Preparation – Units: 0.0

This course is designed for immigrants eligible for the naturalization process. Topics include U.S. History and civic education. This class will focus on practicing listening and responding to the N-400 application questions, reading and responding to the 100 questions, and writing simple sentences to help pass the naturalization interview.

ACOM 35G Supervised Tutoring – Units: 0.0

Open entry/open exit classes designed for students who need individualized instruction.

BSKL 8A CAHSEE Preparation – English – Units: 0.0
32-36 hours lecture and 24-27 hours laboratory.

The course prepares students to take the CAHSEE in English. Students review skills in both reading comprehension and writing skills.

BSKL 8B CAHSEE Preparation – Math – Units: 0.0
32-36 hours lecture and 32-36 hours individualized instruction laboratory.

The course provides supplemental instruction in math in preparation for California High School Exit Exam (CAHSEE).

ENGLISH AS A SECOND LANGUAGE NON-CREDIT (AENG) COURSES

AENG 10.1 ESL Low Beginning Speaking and Listening – Units: 0.0

This class is for people who do not speak or understand any English. It will focus on oral skills required for managing everyday situations such as apartment problems, transportation, shopping, and medical emergencies. Frequent use of simulation and role play. Strong emphasis on vocabulary development, plus basic grammar.

AENG 10.2 ESL Low Beginning Reading and Writing – Units: 0.0

This class is for people who do not read or write any English. It will focus on basic reading and writing skills. Students will learn to read and fill out everyday forms, such as job applications. They will learn the alphabet, basic vocabulary and spelling rules, and also basic grammar.

AENG 10.3 ESL High Beginning Speaking and Listening – Units: 0.0

This class continues from AENG 10.1. It is for people who speak and understand a little English. Students will continue to learn new vocabulary and sentence patterns useful in everyday situations.

AENG 10.4 ESL High Beginning Reading and Writing – Units: 0.0

This class continues from AENG 10.2. It is for people who read and write a little English. Students will continue to develop reading and writing skills useful for everyday situations, such as reading advertisements and finding and using sources of information.

AENG 10.4A Review Class for ESL Beginners – Units: 0.0

This class is for people who completed beginning level English (AENG 10.1-10.4). Students practice reading, writing, listening, and speaking skills that they have already learned. The class focuses on practical, everyday situations such as shopping and work situations.

AENG 10.5 ESL Low Intermediate Speaking and Listening – Units: 0.0

This class continues from AENG 10.3. It is for people who already speak and understand English fairly well. In this class students will also learn more sentence structure and grammar useful in a variety of everyday speaking and listening situations. Students will also be introduced to non-verbal communication, as well as certain idiomatic expressions. There will be a strong emphasis on simulation and role play.

AENG 10.6 ESL Low Intermediate Reading and Writing – Units: 0.0

This class continues from AENG 10.4. It is for people who already speak and understand English fairly well. Students in this class will continue to develop reading and writing skills in English. They will continue learning grammar and spelling rules, and will write at the sentence level. They will learn to read and respond to simple stories and news articles, and other common forms of written material, such as instructions and simple warranties.

AENG 10.7 ESL High Intermediate Speaking and Listening – Units: 0.0

This class is for people who already speak and understand English enough to describe everyday situations, problems, and needs. In this class students will learn more advanced vocabulary, idiomatic expressions, sentence structure, and grammar needed in a variety of specific everyday speaking and listening situations. There will be continued emphasis on simulation and role play.

AENG 10.7A ESL Intermediate Speaking I – Units: 0.0

This class is for people who already speak and understand English enough to describe familiar situations, problems, and needs. In this class students will learn more advanced vocabulary, idiomatic expressions, sentence structure, and grammar needed in a variety of communicative situations. Students develop speaking and listening skills needed for success in work and education.

AENG 10.7B ESL Intermediate Speaking II – Units: 0.0

This class continues from AENG 10.7A. It focuses on English needed for specific formal situations at school and work such as expressing agreement/disagreement and confronting, and job interviews.

AENG 10.10 Intermediate Writing II – Units: 0.0

This class continues from AENG 10.8. Students write compositions on familiar and unfamiliar topics, read short stories, and learn more advanced grammar. This course is useful in preparation for the GED and for college-level writing courses.

AENG 10.13A Low Intermediate Reading and Vocabulary – Units: 0.0

A reading course for low intermediate ESL students emphasizing main ideas, outlining, and vocabulary in context. 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.

HOME ECONOMICS FOR THE HOMEMAKER (AHOM) COURSES

AHOM 10 Advanced Clothing Construction – Units: 0.0

Learn how to handle more advanced fabrics, designer patterns and fitting problems.

AHOM 20 Beginning Clothing Construction – Units: 0.0

Designed to teach sewing, equipment use and commercial patterns.

AHOM 20.1 Intermediate Clothing Construction – Units: 0.0

A structured class teaching advanced pattern techniques for those with basic sewing knowledge.

AHOM 30 Home Decorative Art – Units: 0.0

Specializing in macramé and speed knitting. Designed for all ages over 18 including older adults.

AHOM 50 Sewing for the Family – Units: 0.0

Features pattern fitting, use of sewing machine and technology for family clothing needs.

AHOM 60 Needlecraft/Design – Units: 0.0

Specializing in basic stitches of knitting and crocheting. A class for beginners as well as intermediate and advanced students.

AHOM 70 Hand Crafted Items – Units: 0.0

Craft and small quilting projects for home and personal use.

AHOM 75 Machine Quilting I – Units: 0.0

A beginners class designed to teach strip sewing techniques of making quilts quickly and efficiently by machine.

AHOM 75.1 Machine Quilting II – Units: 0.0

A continuation of Machine Quilting I for those who desire more complicated patterns of quilts by machine.

AHOM 82 Interior Design I – Units: 0.0

A course in the study of color schemes, design, and other topics to introduce this career as well as to help homemakers beautify their home environment.

AHOM 85 Serger Techniques- Units: 0.0

Designed to teach basic techniques including threading, tension adjustments, and go on to learn both construction and decorative uses in project construction. Designed for both beginner and more advanced students.

AHOM 90 Tailoring – Units: 0.0

Modern tailoring techniques are applied to suits and coats for professional fit and appearance. Advanced clothing construction or equivalent recommended.

ADULT PHYSICAL FITNESS (ADPE) COURSES

ADPE 40 Physical Fitness (Formerly ADPE 60) – Units: 0.0

An exercise course designed to emphasize fitness by offering the student a variety of exercises and aerobic work. Open to both men and women.

ADPE 41 Advanced Physical Fitness (Formerly ADPE 61) – Units: 0.0

Advanced techniques of exercise through use of a variety of controlled exercises. This class is open to both men and women.

ADPE 80 Adult Tennis – Units: 0.0

Tennis for adults is fun, offers excellent exercise, and a way to make friends while enjoying tennis. Enhance your tennis skills and quality of life.

ADPE 90 Hawaiian Dance for Older Adults – Units: 0.0

Instruction of basic steps of Hawaiian dance, arm movements, terminology, the usage of Hawaiian implements for routines to Hawaiian music. Dance for the older adult offers excellent exercise and a way to make friends while enjoying the class. Enhances mental and physical skills and quality of life.

PARENTING (APAR) COURSES

APAR 10 FOSTER PARENTING – Units: 0.0
This course is designed to ensure that children's basic needs are met. It will help parents learn to set and record realistic goals and expectations for their child's developmental progress. Students will learn how to effectively communicate with their children. This course will also cover topics such as boundary and limit setting, appropriate consequences, and ways to improve self-esteem.

APAR 20 EFFECTIVE PARENTING – Units: 0.0

Learn how to meet and deal with the challenges today of raising children between the ages of 2 to 12 years old.

APAR 30 SINGLE PARENT LEADERSHIP ACADEMY – Units: 0.0

Designed as a leadership academy for students in the New Horizons Program. These classes will provide information and instruction on leadership training, present and future trends in the work force, non-traditional jobs for women, values and goal setting, debt management, health issues, cultural diversity, and success in the work place.

VOCATIONAL (AVOC) COURSES

AVOC 12 FOOD SERVICE – Units: 0.0

This course is designed to provide basic and essential training at the entry level for prep/pantry cook and waitress/waiter. Program will include on-the-job training. Certificates of completion will be issued upon successful completion of course.

AVOC 40 BUS DRIVER EDUCATION – Units: 0.0

This course qualifies one to apply for a school bus driver's certificate. There is no behind the wheel training. This class consists of all classroom work.

AVOC 85 PERSONAL PATTERN DRAFTING I – Units: 0.0

Students will learn basic fitting techniques by drafting a basic pattern from which other designs can be drafted. Commercial patterns will also be used.

FACULTY AND STAFF

VICTOR VALLEY COLLEGE FACULTY AND STAFF

FULL TIME FACULTY AND ADMINISTRATORS

Adell, Tim (1999)
Professor, English
B.A., North Park College
M.A.., M.F.A., McNeese State University

Akins, John (1991)
Professor, Librarian
B.A., California State University, Fullerton
M.L.S., University of Hawaii at Manoa
M.A., California State University, Long Beach

Alcorn, William (1969)
Professor Emeritus
B.A., Park College
M.S., University of Omaha

Allan, Peter (1997)
Professor, Business Administration
B.A, M.B.A., California State University, San Bernardino

Ashton-Beazie, Janet (1978)
Professor Emeritus, Librarian
B.S.Ed., M.S., University of North Dakota

Augustine-Carreira, Jacqueline (2001)
Professor, Communication Studies
B.A., M.P.A., California State University, San Bernardino

Bachofner, William (1971)
Professor Emeritus, Psychology
B.A., University of San Diego
M.A., Chapman College

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

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

Beach, Kelley (2003)
Associate Professor, Counseling
A.A., Victor Valley College
B.A., M.A., California State University, San Bernardino

Bejarano-Vera, Patricia (2007)
Director of Special Grant Programs
B.A., M.P.A., California State University, Fullerton

Becker, Barbara (1993)
Professor, Business Education Technology
A.S., Victor Valley College
B.A., California State University, San Bernardino
M.B.A., University of Redlands

Bennett, Harry Lee (2000)
Professor, Automotive
A.S., Victor Valley College
B.A., Chapman University

Blanchard, Debra (1992)
Professor, Physical Education
B.A., California State University, Northridge
M.S., Arizona State University

Bozonelos, Dino (2006)
Assistant Professor, Political Science
B.S., M.A., California State University, San Bernardino

Bryan, T. Scott (1981)
Professor Emeritus, Geology/Astronomy
B.S., San Diego State University
M.S., University of Montana

Buckles, Duane (1985)
Professor Emeritus, Restaurant Management
A.A.S., Paul Smith's College of Arts and Sciences, New York

Burg, Edward (1999)
Professor, Computer Information Systems
B.S., California State University, Fullerton
M.S., University of Phoenix

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

Campbell, Bryce (2003)
Associate Professor, English
B.A., M.A., Ph.D., Washington State University

Carlson, G. Robert (2001)
Professor, Mathematics
B.S., Morningside College
M.S., Colorado School of Mines

Cass, Reiji (1990)
Professor, Computer Information Systems
B.S., Shanghai Electronic Engineering College, China M.S., South Dakota School of Mines and Technology

Cerreto, Richard (1998)
Professor, Anthropology
B.A., M.A., California State University, Fullerton

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

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

Cline, Diane (1979)
Professor, Nursing
B.S., San Diego State College
M.S., California State University, Los Angeles

Cole, Christine (1998)
Professor, Counseling
B.S., M.A., Northern Arizona University

Cole, Marsha (2008)
Instructor, Child Development
B.A., M.A., California State University, San Bernardino

Comer, James (2004)
Assistant Professor, History
Ph.D., Bowling Green State University

Contreras, Fernando (2000)
Professor, Counseling
B.A., University of California, Santa Cruz
M.A., San Jose State 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)
Professor, History
B.A., M.A., University of California, Riverside

DeLong, Carol (1992)
Professor, Geography
B.A., M.A., California State University, Long Beach

Diaz, Felix (1971)
Counselor Emeritus
B.A., Los Angeles State College
M.A., Chapman College

Doan, Mary Lynn (1992)
Professor, Mathematics
B.A., California State University, San Bernardino
M.S., University of California, Riverside

Doyle, John (1990)
Professor, Allied Health/Paramedics
A.S., Victor Valley College
B.S., University of LaVerne
B.S., Excelsior College, New York

Dube-Price, Melanie (2009)
CalWORKS Program Counselor
B.S., Cal Poly, Pomona
M.A., California State University, San Bernardino

Dunsmore, Margaret (1988)
Professor, Cooperative Education
B.S., University of Oklahoma

Dupree, David (1988)
Professor, Political Science
B.S., Sterling College, Kansas
M.A., University of Kansas

Eccleston, Joanne (1972)
Professor Emeritus, Child Development
A.B., University of Southern California
M.A., Pacific Oaks College

Eklund, Laird (1989)
Professor, English as a Second Language
B.S., Georgetown University, Washington, D.C.
M.A., University of Southern California

Elgin, Frances (1980)
Librarian Emeritus
B.S., Southwest Missouri State University
M.L.S., San Jose State University

Ellis, Lisa (1999)
Professor, History
B.A., M.A., Youngstown State University

Estephan, Joseph (2003)
Associate Professor, Mathematics
B.A., University of California, Los Angeles
M.A., University of Southern California

Faro, Thomas (1988)
Professor Emeritus, Electronics & Computer Technology

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

Fields, Ronald (1992)
Professor, Administration of Justice
B.A., M.A., California State University, Fullerton

Flome, Robert (1979)
Professor, Psychology
B.A., San Fernando Valley State, Northridge
M.A., M.Ed., Chapman University

Foster, John Franklin (1992)
Professor, Art/Photography
B.F.A., Memphis College of Art
M.F.A., California Institute of the Arts

Franco, Cuauhtemoc (1990)
Professor, Spanish
B.A., M.A., California State University, Fresno

Franco, Lilia (2009)
Gear Up Counselor/Academic Advisor
B.A., University of California, Riverside
M.A., University of Redlands

Frohner, Theodore (1985)
Professor Emeritus, History
B.S., M.A., Ohio State

Galvez, Dixie (1976)
Professor Emeritus, Nursing
A.B., University of Redlands
M.P.H., M.S.N., Loma Linda University

Garcia, Diego (1989)
Professor, Nursing
B.S., California State University, San Bernardino
M.S.N., Azusa Pacific University

Garver, Kenneth (1970)
Professor Emeritus, Biological Sciences
B.S., Northern Arizona University
M.Ed., University of Arizona

Gaytan, Manuel (1999)
Professor, EOPS Counseling
B.A., M.S., California State University, San Bernardino

Gibbs, David (2004)
Associate Professor, Biological Sciences
B.S., M.S., California State Polytechnic University, Pomona

Gibbs, Jessica (2006)
Assistant Professor, Biological Sciences
B.S., University of California, Irvine
M.S., California Polytechnic University, Pomona

Glebe, Andrea (1997)
Professor, English
B.A., B.A., Washington State University
M.A., Colorado State University

Golder, Patricia (1997)
Professor, English/Basic Skills
B.A., M.A., California State University, San Bernardino

Golliher, Carol (1987)
Professor Emeritus, Basic Skills
B.A., Alma College
M.A., Eastern Washington University

Graham, David (2002)
Associate Professor, Music
B.A., University of the State of New York
M.A., California State University, Dominguez Hills

Grimes, Fontella (2003)
Associate Professor, EOPS Counseling
B.A., M.S., San Diego State University

Grover, Christopher (1993)
Professor, Real Estate
B.A., California State University, San Bernardino
M.B.A., Heriot-Watt University, Edinburgh

Guardado, Lynn (2001)
Professor, Dance
B.A., San Diego State University
M.A., California State University, San Bernardino

Harvey, Lisa (1999)
Professor, Biological Sciences
B.A., Point Loma College
M.S., Ph.D., Loma Linda University

Heaberlin, Jr. W. Edward (1996)
Professor, Theatre Arts/Communication Studies
B.F.A., M.A., Marshall University

Hendrickson, Brian (2004)
Associate Professor, Paramedic
B.S., Grand Canyon University

Hollomon, David (1990)
Professor, Business Administration
B.S., California State University, Long Beach
M.A., California State University, Los Angeles

Hoover, David (2000)
Professor, Physical Education/Football Coach
B.A., California State University, Los Angeles
M.Ed., Azusa Pacific University

Huff, Norman (1967)
Professor Emeritus, Computer Information Systems
A.A., Victor Valley College
B.S., San Diego University
M.B.A., Golden Gate University

Huiner, Leslie (2001)
Professor, *Librarian*
B.A., University of California, Riverside
M.L.S., San Jose State University

Irby, Kermit (1971)
Professor Emeritus, Business Administration
B.S., University of California, Davis
M.A., California State University, Los Angeles

Irwin, Tom (1961)
Professor Emeritus, Biological Sciences
B.A., University of California, Santa Barbara
M.A., Chapman College

James, Pamela (1997)
Professor, Counseling
B.S., California State University, Fullerton
M.A., California State University, San Bernardino

Javaheripour, G H (2008)
Vice President, Administrative Services
B.S., Southern Illinois University
M.B.A., Webster University
Ed.D., The University of New Mexico

Jennings, Patricia (2001)
Professor, Psychology
B.A., M.A., Antioch University

Johnson, Eartha (2006)
Matriculation *Counselor*
B.A., University of California, Los Angeles
M.S., Columbia University, City of New York

Johnston, Timothy (2009)
Dean of Student Services
B.A., Loyola Marymount University
M.Ed., Ed.D., University of California, Los Angeles

Jones, Gregory (2006)
Assistant Professor, Communication Studies
A.S., Mt. San Jacinto College
B.A., M.S., California State University, San Bernardino
Ph.D., Capella University

Jones, Scott (2003)
Associate Professor, Paramedic/EMS
B.S., Loma Linda University
M.B.A., University of Phoenix

Kaiser, Hinrich (2002)
Associate Professor, Biology
B.S., Ph.D., McGill University, Montreal, Canada

Kelly, Margaret (1975)
Professor Emeritus, Nursing
B.S., M.S., California State University, Los Angeles

Kennedy, Thomas (1998)
Associate Professor, Chemistry
B.S., University of Rochester
M.S., California State Polytechnic University, Pomona

Kildal, Lori (2006)
Dean, Instructional Programs-STEM
B.S., California State Polytechnic University, Pomona
M.Ed., Azusa Pacific University
Ph.D., University of New Mexico

Kirkham, Robert (1979)
Professor Emeritus, Physics
B.A., University of California, San Diego
M.S., San Diego State University

Kohlschreiber, Molly (1976)
Professor Emeritus, Art
B.A., M.A., Long Beach State College

Kroencke, John (1971)
Professor Emeritus, Business Administration
A.B., M.A., San Jose State College

Kumlin, Allan (1979)
Professor Emeritus, Cooperative Education
B.V.E., M.A., California State University, San Bernardino

Lackey, Jennie A. (1967)
Professor Emeritus, Psychology
B.A., University of Minnesota
M.Ed., University of Montana, Missoula

Luna, Starlie (1998)
Professor, Nursing
M.S., Loma Linda University

Longoria, Renate (2006)
Assistant Professor, Nursing
A.S., Victor Valley College
B.A., University of Redlands
M.S., California State University, Los Angeles

Longshore, David (1973)
Professor Emeritus, Mathematics
B.A., Long Beach State College
M.S., University of Southern California

Luther, Patricia (1990)
Dean, Instructional Programs-Health Sciences & Public Safety
B.S., University of Oregon
M.S., University of Michigan
M.A., San Diego State University
Ed.D., Nova Southeastern University

Mackay, Pamela (1992)
Professor, Biological Sciences
B.S., B.S., M.S., California State Polytechnic University, Pomona

Malone, James Patrick (2000)
Professor, Mathematics
B.A., M.S., Humboldt State University

Marin, Tracy (2003)
Associate Professor, Respiratory Therapy
A.S., Victor Valley College
B.S., M.P.H., Loma Linda University

Mauch, W. Patrick (2003)
Associate Professor, Mathematics
B.S., College of Great Falls, Montana
M.S., Montana State University

Mayer, Eric (1989)
Professor, History
B.A., M.A., Ph.D., University of California, San Diego

Mayer, Peggy (1999)
Professor, EOPS Counseling
B.A., University of California, Santa Barbara
M.A., University of Denver

McCracken, Michael (2000)
Professor, Counseling
B.A., University of California, Riverside
M.A., California State University, San Bernardino

Melkonian, Arda (1998)
Professor, Mathematics
B.S., M.A, M.A., University of California, Los Angeles

Menser, Gary (1983)
Professor, Industrial Arts/Welding
B.A., M.A., California State University, Long Beach

Miller, David J. (1990)
Professor, Counseling/Psychology
B.A., University of California, Berkeley
M.S., University of Wisconsin, Madison
Ed.D., U.S. International University, San Diego

Miller, Thomas (1976)
Professor, Music
B.M., Biola University
M.M., M.S.M., Southern Methodist University
Ph.D., University of Southern California

Milroy, Marjorie (1968)
Professor Emeritus, Communication Studies/Theatre Arts
B.A., San Jose State College, California
M.A., California State University, San Bernardino

Mirci-Smith, Theresa (1990)
Professor Emeritus, Communication Studies
B.A., California State University, Sacramento
M.A., California State University, Fullerton

Moon, Oscar Odell (1990)
Professor, Business Administration
B.S., California State Polytechnic University, Pomona
J.D., Western State University, Fullerton

Moran, Virginia (2006)
Executive Dean, Institutional Effectiveness
B.A., M.A., California State University, San Bernardino

Morris, Joseph (2011)
Director of the Associate Degree Nursing Program and Allied Health
B.S., M.S., University of Michigan
Ph.D., University of California, Los Angeles

Moser, David (1999)
Professor, Mathematics
B.A., M.A., California State University, Los Angeles

Nelle, Stephen (2003)
Associate Professor, Computer Integrated Design & Graphics
B.A., University of California, Santa Barbara

Ngobi, Said (2006)
Assistant Professor, Mathematics
B.S., Makerere University
M.S., Ph.D., Louisiana State University

Ochoa, Lorena (2007)
Assistant Professor, Bilingual Counseling
B.A., M.S., California State University, Long Beach

O'Hearn, Christopher (2009)
Superintendent/President
B.A., M.A., M. Ed., Loyola University of Los Angeles
Ph. D., Capella University

Oleson, David (2006)
Assistant Professor, Paramedic
A.A., A. S., Chaffey College
B.S., Loma Linda University
M.S., Grand Canyon University

Oliver, Claude (2001)
Professor, Computer Integrated Design and Graphics
B.S., California State University, Fresno
M.A., Chapman University

Palmer, Rebecca (1989)
Professor Emeritus, Business Education Technology
B.V.E., California State University, San Bernardino

Pendleton, Joseph (2001)
Professor, Reading Specialist
B.A., B.A., University of California, Irvine
M.A., Marquette University
M.A., University of California, Berkeley

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

Previte, James (1981)
Professor, Psychology
B.S., University of California, Davis
M.A., Loyola Marymount University

Price, Clova (1968)
Professor Emeritus, Business Administration
B.S., Oklahoma State University
M.A., Arizona State College

Pugh, Donald (1974)
Counselor Emeritus
B.A., M.A., San Jose State College
Ph.D., University of Idaho

Ramming, Alice (2003)
Associate Professor, Nursing
A.S., Mt San Antonio College
B.S., California State University, San Bernardino
M.S., California State University, Dominguez Hills

Redona, Jeff (1999)
Professor, Mathematics
B.A., M.A., California State University, San Bernardino

Regino, Rolando (2011)
Interim Director, Evening Operations, Instructional Support Programs
B.A., San Francisco State University
M.A., California State University, Fullerton
Ph.D., Capella University

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

Ripley, Richard (1997)
Professor, Art
B.A., Kenyon College
M.F.A., Claremont Graduate School

Risser, Joy (1975)
Professor Emeritus, Business Administration
A.B., Carthage College
M.A., University of Redlands
Ph.D., University of California, Los Angeles

Rowland, Daniel (1993)
Professor, Automotive Technology
A.S., Victor Valley College
B.A., California State University, San Bernardino

Rubayi, Khalid (2000)
Professor, Electronics & Computer Technology
B.S., M.S., Northrop University

Rude, John (1997)
Professor, Communication Studies/Theater Arts
B.S., Bemidji State College
M.A., Ball State University
Ph.D., University of Missouri

Ruiz, Maria (1999)
Professor, English as a Second Language
B.A., San Jose State University

Samaniego, D.C. (1970)
Professor Emeritus, Spanish
B.S., Arizona State College
M.A., Arizona State University

Shahin, Louis (1984)
Professor Emeritus, Mathematics
B.S., M.S., University of California, Los Angeles

Skuster, Marc (1977)
Professor, Philosophy/Religious Studies
B.A., Simpson College
Rel.M., School of Theology at Claremont
Ph.D., Claremont Graduate School

Slade, Neville (2001)
Professor, Horticulture
M.S., Colorado State University

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

Smith, Frank (2008)
Executive Dean, Technology & Information Resources
B.G.S, Roosevelt University
M.B.A., M.P.M, DeVry University

Smith, Michael (2001)
Professor, Education
B.A., University of California, Riverside
M.A., Pepperdine University

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

Speakman, Jeanine (2005)
Assistant Professor, Nursing
B.S., M.S., University of Phoenix

Sweet, John (1996)
Professor, Automotive

Sypkens, Mary (1993)
Professor, Child Development
B.S., University of La Verne
M.A., Pacific Oaks College

Tashima, Eugene (1985)
Professor, Sociology
B.A., Humboldt State University
M.A., University of California, Los Angeles

Taylor, Shuron (2001)
Professor, Computer Integrated Design and Graphics
B.A., M.P.S., New York University

Teel, Patricia (2001)
Professor, English
B.A., M.A., California State Polytechnic University, Pomona
Ed.D., Capella University

Thibeault, Sally (1999)
Professor, Nursing
B.S., M.S., California State University, San Bernardino

Thomas, Shane (2000)
Professor, CIS
A.A., Victor Valley College
B.A., California State University, San Bernardino

Tomlin, Karen (1987)
Professor, English
B.A., M.A., University of California, Santa Barbara

Toner, Stephen (2002)
Associate Professor, Mathematics
B.A., California State University, Fullerton
M.A., Chapman University

Tonning, Paul (2000)
Professor, CIS (Web Development)
B.S., California State University, San Bernardino

Trost, Jaclyn (2002)
Associate Professor, DSPS Counseling
B.A., M.A., California State University, San Bernardino
M.A., Azusa Pacific University

Truelove, Terry (2002)
Associate Professor, Nursing
B.S., Oakland University, Michigan
M.S., University of Phoenix

Turner, Thomas (2004)
Associate Professor, Fire Technology
A.S., Victor Valley College

Victor, Bruce (1990)
Professor, Physical Education
B.S., California State University, Los Angeles
M.A., Azusa Pacific University

Vila, Martha (1998)
Professor, Spanish
M.A., University of Nevada, Las Vegas
Ph.D., University of California, Santa Barbara

Visser, Michael (2006)
Assistant Professor, Administration of Justice
A.S., Riverside City College
B. A., California State University, San Bernardino
M.S., California State University, Northridge

Visser, Sandy (2003)
Associate Professor, Child Development
B.S., M.S., University of La Verne

Wagner, Patricia (1999)
Professor, English
A.A., Long Beach City College
B.A., M.A., California State University, Long Beach
M.P.W., University of Southern California

Walker, Kenneth (1974)
Professor Emeritus, Biological Sciences
B.A., Long Beach State College
M.S., Northern Arizona University

Weis, Anh (2001)
Professor, Mathematics
B.A., M.A., California State University, San Bernardino

White, Christa (1998)
Professor, Physical Education
B.S., Texas Tech University
M.Ed., Azusa Pacific University

Williams, Paul (2008)
Dean, Instructional Programs-Humanities, Arts & Social Sciences
B.A., University of Arizona
M.A., University of Wisconsin
Ph.D., University of California, Berkeley

Wollan, Diane (2003)
Associate Professor, Counseling
A.B., M.S., San Diego State University

Wood, Brent (2001)
Professor, Commercial Photography
B.A., Brooks Institute of Photography, Santa Barbara

Yokotobi, Fusako (2008)
Vice President, Human Resources
B.A., California State University, Chico
M.P.A., California State University, East Bay

Young, Henry (1995)
Professor, Business Administration
B.S., California State Polytechnic University, Pomona
M.B.A., University of Phoenix

Zacovic, Mark (2010)
Interim Executive Vice President, Instruction and Student Sevices
Ph.D., University of Nevada, Reno

CLASSIFIED STAFF

Alexander, Rhonda (1997), Laboratory Technician
Allen, April (1986), Instructional Program Specialist
Allen - Velasquez, Kenyona (2006), Office Assistant
Allen, Monique (2007), Sign Language Interpreter I
Alsina, Eileen (2008), Instructional Program Specialist
Ananda, Srichandran (2006), Senior Instructional Assistant
Aragon, Esperanza (2006), Help Desk Technician
Aragues, Rhiannon (2004), Sign Language Services Interpreter II
Armstrong, Terrie (1997), Instructional Assistant
Avila, Silvia (2004), Admissions and Records Technician
Bandringa, Pearl (2004), Accounting Technician II
Barker, Michelle (2001), Accounting Technician I
Barnett, Patricia (1987-2008), Distinguished Service
Baumbusch, Craig (2007), Campus Police Reserve Officer
Bazurto, Theresa (1999), Administrative Secretary I
Becker, Valerie (2006), Instructional Assistant
Bell, Galene (2008), Lab Aide
Board, Frederick (2006), Warehouse Delivery Worker
Browne, Aaron (1993), Book Division Coordinator
Bryant, Vaughn (2010), Custodian
Buck, Patricia (2006), Administrative Secretary II
Buckley, Miranda (2009), Sign Language Services Interpreter II
Burham, Sheila (2008), Help Desk Technician
Bustillos, Raina (2007), Payroll & Benefits Technician
Caldwell, Sheree (1999), WIA/CalWORKS Coordinator
Camarena, Anthony (2007), Campus Police Officer
Campos, Marena (2006), Switchboard Operator/Receptionist
Cardoza, Maria (2004), Admissions & Records Technician
Cardoza, Ted (2008), Custodian
Carney, James (1999), Campus Police Officer
Carpenter, Malia (2005), Administrative Secretary I
Carter, Lauren (2009), Sign Language Services Interpreter I
Casler, Arthur (1997), Maintenance Worker
Castleman, Darlene, (1978-1998), Distinguished Service
Cera, Ernest (2007), Campus Police Reserve Officer
Chavez, Magdalen (2007), Human Resources Technician
Chavez, Rocio (2004), Senior Human Resources Analyst
Chesser, Deborah (2004), Deaf & Hard of Hearing Specialist
Christiansen, Julie (2000), Administrative Secretary I
Christian, Nancy (1988), Performing Arts Center Technician
Churgin, Victoria (2008), Administrative Assistant
Clair, Mark (1999), Institutional Research Coordinator
Compton, Noanna (2000), Human Resources Technician
Comstock, James (2006), Inst. Network Computer MaintenanceTechnician
Cook, Jonathan (2003), Senior Instructional Assistant
Cripps, Lisa (2006), Office Assistant
Cross, Douglas (1998), Senior Instructional Assistant
Crowley, J Kevin (2000), Course Management Administrator
DaCosta, Debra (1988), Accounting Specialist
Dascenzo, Stacey (2009), Sign Language Services Interpreter II
Dance, Tamara (1990), Admissions & Records Specialist
Derryberry, Donna (1998), Administrative Secretary I
Dershem, Babette (2004), Instructional Media Svcs. Coordinator
Dove, Randy (2007), Grounds Maintenance Worker
Duarte, Elizabeth (2006), Upward Bound Program Coordinator
Durheim, Carl (2006), Bookstore Operations Assistant
Dwiggins, Steve (2007), Grounds Maintenance Worker
Elmore, Rebecca (2008), Gear Up Associate Director
Embrey, Vira (1990-2008) Distinguished Service
Espinoza, Jan (2001), Office Assistant
Failing, Jeremy (2006), Sign Language Services Interpreter II
Falkowski, Jeri Kay (2010) Executive Administrative Assistant, HR
Finch, Tammy (2002), Grounds Maintenance Worker
Finch Jr., William (1984), Maintenance Worker
Flenna, Michael (1997), Custodian
Flenna, Peter (1997), Custodian
Ford, Carole, (1999), Senior Instructional Assistant
Foxworthy, Diane (1996), Financial Aid Specialist
Garcia, Albert (2008), Inst. Network Computer MaintenanceTechnician
Garcia, Carly (2007), Sign Language Services Interpreter II
Garcia, Lilia (2007), Student Services Specialist II
Garcia, Stephen (1989), Director, Facilities Construction & Contracts
Garrett, Steven (2006), Custodian
Gatewood, Justin (2006), Webmaster
Gilbert, Thomas (2000), Network Manager
Gomez, Blanca (2006), Sign Language Services Interpreter I
Gonzales, Salena (2004), Campus Police Officer

Greene, Arlene (1988), M & O, Facilities Clerical Technician
Greulich, Bill (1989), Director, Marketing & Public Information
Guinotte, Christine (2001), Administrative Secretary I
Harriman, Darrell, (1999), Electronics Lab Specialist
Hatchell, Brian (2006), Network Manager
Henning, Lorie (2001), Accounting Technician II
Herd, Brandy (2007), Sign Language Services Interpreter II
Hernandez, Ralph (2006), Grounds Maintenance Worker
Hernandez, Yvonne (2002), Senior Instructional Assistant
Hill, Carol (2006), Payroll & BenefitsTechnician
Hinojos, Susan (2002), Instructional Assistant
Hoppes, Joann (1997), Instructional Assistant
Hoskins, John (2010), Laboratory Aide
Howie, Brian (1997), Maintenance Worker
Huggins, LaDonna (2001), Office Assistant
Hughes, Hulon (2001), Grounds Maintenance Worker
Hultquist, Rose (2008), Upward Bound Program Coordinator
Hussing, Cathy (2007), Accounting Technician I
Hylton, Christopher (2005), Director, Maintenance & Operations
Isbell, Timothy (2007), Instructional Media Services Aide
Jacquez, Noreen (1999), Campus Police Officer
Janisko, Gina (1998), Financial Aid Specialist
Jasso, Evelyn (1998), Office Assistant
Johnson, Kelley (2007), Director, Child Development Center
Jones, Dennis (2011), Campus Police Officer
Jordan, Pacita (2002), Office Assistant
Katnic, Laura (2001), Office Assistant
Kingman, Kelley (2006), Accounting Technician I
Knight, Leonard (2010), Chief, Campus Police
Kraft, Joshua (2009), Sign Language Services Interpreter II
Kuhns, Troy (2006), Senior Instructional Assistant
Kwan, Michael (1997), Senior Instructional Assistant
Landin, Hilda (2007), Admissions & Records Technician
Lares, Sonia (2003), Office Assistant
Larriva, Jennifer (2007), Research Analyst
Laveaux, B. Michele (1997), Senior Instructional Assistant
Lewis, Nancy (2006), Accounting Technician I
Lindley, Kyle (2008), Inst. Network Computer MaintenanceTechnician
Longway, Shirley (2006), Campus Police Officer
Lough, Margie (1972-1998), Distinguished Service
Macias, Elena (2009), Sign Language Services Interpreter I
Maciel, Denise (2005), Sign Language Services Interpreter I
Maldonado, Justin (2007), Campus Police Reserve Officer
Manriquez, Veronica (1997), Placement Specialist
Markegard, Therese (2006), Office Assistant
Martin, Mary (1987), Distinguished Service
Martinez, Carlos (1997), Lead Custodian
Mata, Kathy (1998), Accounting Technician II
Mauter, Mary (2009), Sign Language Services Interpreter II
McComas, Annette (2000), Executive Assistant
McCoy, Joseph (2005), Sign Language Services Interpreter II
McCoy, Tonya (2006), Accounting Technician I
McDaniel, Linda (2002), Switchboard Operator/Receptionist
McDonald, Gabriel (2006), Sign Language Serv. Interpreter II
Melendez, Simon (1982-2000), Distinguished Service
Mendez, Martha (2004), Program Specialist, Special Grant Programs
Messer, Monty (1996), Lead Warehouse/Delivery Worker
Messer, Michelle (1999), Administrative Secretary II
Meyer, Scott (2006), Vehicle & Equipment Mechanic
Montalvo, Patricia (2009), Sign Language Services Interpreter II
Montgomery, Patricia (2001), Student Services Specialist II
Moon, Greta (1990), Director, Admissions and Records
Moore-Talley, Joseph (2008), Custodian
Morales, Gisel (2007), Financial Aid Technician
Morales, Xochitl (2006), Senior Instructional Assistant
Moreno, Christina (1997), Senior Systems Analyst
Moreno, Sandra (2001), DSPS Specialist
Morgan, Rodrick (2007), Network Manager
Mulligan, B. Scott (1998), Printing Services Specialist
Murphy, Deanna (2000), Assistant Director, Auxiliary Services
Murray, James (2002), Financial Aid Specialist
Navarrete, Elaine (2005), Financial Aid Specialist
Navarro, Ray (1998), Senior Instructional Assistant
Nickerson, William (1997), Instructional Assistant
O'Brien, Janice (2006), Sign Language Services Interpreter II
O'Brien, Mary Jo (1983-2000) Distinguished Service
Olguin, Rosalie (2006), Administrative Secretary I
Orta, Josanna (2006), Budget Analyst
Ortiz, Paulette (2002), Office Assistant
Parmer, William (Tom) (2000), Custodian

Pearson, Eric (1981), Performing Arts Center Coordinator
Perdomo, Angela (2008), Auxiliary Services Assistant
Peterson, Deborah (2000), Senior Instructional Assistant
Potts, Deborah (2000), Community/Contract Education Coordinator
Prewett, Deborah (2004), Auxiliary Services Specialist
Prieto, Angela (1977), Library Technician
Pulido, Christy (2007), Sign Language Services Interpreter II
Pugliese, Reba (2006), Financial Aid Technician
Rempfer, Maria (2001), Bookstore Operations Assistant
Reyes, Eddie (2000), Grounds Maintenance Worker
Reyes, Jessica (2007), Library Technician
Reyes, Joanna (1999), Custodian
Reyes-Garcia, Renee (2003), Accounting Technician I
Reynoso Stultz, Adrienne (1998), CDC Associate Teacher
Richards, Robbie (2002), Financial Aid Specialist
Richardson, Randy (2007), Campus Police Reserve Officer
Rickards, Alex (2006), Lead Grounds Maintenance Worker
Rivera, Fritzi (2006), Custodian
Rivera, Silvestre (2007) Campus Police Reserve Officer
Robillard, Teresa (1998), Clerical Technician II
Rodgers, Laurel (1990), Library Technician
Rodriguez, George (2000), Custodian
Rodriguez, Melina (2002), Clerical Technician I
Romberger, Robert (2006). Inst. Network Comp. Maint. Technician
Ruby, Peggy (1998), CDC Permit Teacher
Sandello, Margie (1993), Coordinator, Student Services
Sandoval, Mark (2006), Maintenance Technician
Schneider, David (2006), Maintenance Locksmith
Selby, Suzan (2005), Instructional Program Specialist
Sewell, Robert (1994), Director, Auxiliary Services
Sharp, Ann Marie (2002), Administrative Secretary I
Sisk Diana (2003), Sr. Instructional Assistant/Instructional Assistant
Snell-Gonzales, Shirley (2000), Administrative Assistant
Stalians, Jeff (2003), Senior Instructional Assistant
Steinback, David (1995), Senior Instructional Assistant
Stockman, William (2006), Instructional Assistant
Stump, Carole (2003), Library Technician
Suderno, Jean (1997), Admissions and Records Technician
Surek, Cynthia (2009), Sign Language Services Interpreter I
Tascione, Ron (2005), Campus Police Officer
Tashima, Julia (1992), Director of Athletics/Athletic Trainer
Tejas, Stephen (2006), Instructional Assistant
Torres, Diana (2009), Human Resources Specialist
Tran-Quang, Cam-Quynh (2005), Sr. Programmer/Software Devlpr.
Tremblay, Julie (1997), Library Technician
Turnbeau, Deanna (2008), Director, MIS
Turner, Nancy (2004), DSPS Assistant/Interpreter
Ullger, Kendra (2004), Bookstore Operations Assistant
Vaughn, Audrey (2006), Administrative Secretary II
Vidana-Barda, Kevin (2008), College Recruiter
Vidana-Barda, Marie (1990), Senior Accounting Technician
Vigil, Donna (2007), Admissions & Records Technician
Von Ins, Joy (2006), Library Technician
Wack, Gerald (2002), Custodian
Walker, Frank (1998), Lead Warehouse Delivery Worker
Walton, Florine (2006), Administrative Secretary II
Whitney, Starla (2002), Curriculum & Scheduling Coordinator
Wilkin, Amy (1998), Athletic Trainer
Willis, Correne (2006), Sign Language Services Interpreter II
Willis, Joel (2006), Sign Language Services Interpreter II
Winburn, David (2007), Campus Police Reserve Officer
Witt, Patricia (2006), Office Assistant
Wright, Sharon (1999), Accounting Technician II
Wyman, Nathaniel (2007), Sign Language Services Interpreter II
Youngs, Albert (2000), Senior Instructional Assistant
Zachman, Amy (2007), Sign Language Services Interpreter II
Zamora, Francisco (2006), Grounds Maintenance Worker
Zhu, Yong (2005), Database Administrator
Zipp, Tanya (2007), Laboratory Technician

VVC Faculty 1962-63

The Faculty 1962-63

(back row, from left)
Melvin Huden; Lawrence Davenport
Philip Houseman; J. Thompson
Milton Danielson; Marjorie Robinson
and Milton Shennum.

(front row, from left)
President Fred Berger; Patty Jo Fenn
Tom Irwin; J.D. Fenn; Gordon Blaidell
Paul Pierson; James Chapman
Geraldine Bergman; Burton Wadsworth
and Polly Fitch.

VVC Faculty 1965

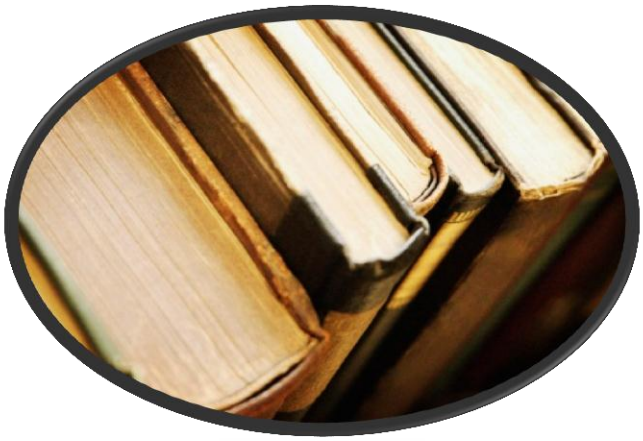
VVC Full Time Faculty 1965

First VVC Coach

First VVC Coach

Juel Caruthers

INDEX



COLLEGE INDEX

D

E

F

G

H

I

J

L

M

N

O

COLLEGE INDEX

P

R

S

T

U

V

W

COLLEGE INDEX

Victor Valley College Catalog 2011-12

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

50 Years
1961-2011