

VIII.
PROGRAMS OF STUDY

“Education is not preparation for life: education is life itself.”

-John Dewey
1859-1952.

ADMINISTRATION OF JUSTICE

All areas of Administration of Justice require that individuals possess the personal and physical qualities essential to effective peace officers. Many employment opportunities currently exist for individuals desiring entrance into law enforcement or related fields at various governmental levels. Security and corrections are fast-growing professions. Individuals interested in these professions should understand that the work is demanding, requiring a combination of training, education, and experience, along with mental and physical stamina.

The Administration of Justice program is designed to develop a student's understanding of the various operational functions within the criminal justice system. The educational emphasis will be the examination of crime causation, functions of law enforcement, criminal court system, and corrections. Students majoring in this subject area can prepare themselves for careers in law enforcement, corrections, and security at both the operational and administrative levels. For course descriptions, see Section IX of this catalog.

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

For employment at the federal level in such agencies as the Bureau of Alcohol, Tobacco and Firearms (ATF), the Drug Enforcement Agency (DEA), or the Federal Bureau of Investigation (FBI), a bachelor's degree in accounting, computer information systems, or the physical sciences is preferred.

Careers at the state, county, or city level usually require a high school diploma, but an associate's degree is preferable. Careers in law enforcement usually start with Police Academy Training. This modulated academy provides the opportunity to become a reserve officer while completing Levels II and III of training. A Level I graduate may elect to become a reserve officer or may apply for a full-time position with a law enforcement agency in California.

Careers in Forensics - the application of science and technology to the analysis of physical evidence - may be entered through the Field Evidence Technician course (AJ 67) and the Fingerprint Recognition and Classification course (AJ 111). Courses in Forensic Biology and Forensic Chemistry offer preparation for students planning to transfer to bachelor's level programs, such as those at the following CSU campuses: Fullerton, Long Beach, Sacramento, and Stanislaus. Candidates with master's degrees in this field are being offered salaries of around \$70,000.

Career Opportunities

Communication Technician
Correctional Officer
Criminologist
Deputy Sheriff
Forensic Chemistry
Forensic Technician
Juvenile Correctional Office
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

Autopsy Assistant Certificate
Correctional Science Certificate
Corrections Certificate
Fingerprint Recognition and Classification Certificate
Forensic Specialist Certificate
Juvenile Counselor Course Certificate
Law Enforcement Modulated Course Level II Certificate
Law Enforcement Modulated Course Level III Certificate
Module A Reserve Academy Firearms Only Certificate
PC 832 Law Enforcement Course Certificate
Police Technician Specialist Certificate
School Police Course: PC 832.3 Certificate

Certificate Programs

ADMINISTRATION OF JUSTICE CERTIFICATE

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

24.0 units

<i>All of the following must be completed:</i>		Units
AJ 101	Introduction to Administration of Justice	3.0
AJ 102	Criminal Procedures	3.0
AJ 103	Criminal Law	3.0
AJ 104	Legal Aspects of Evidence	3.0
AJ 126	Traffic Enforcement and Investigation	3.0
AJ 127	Crime and Delinquency	3.0
AJ 133	Writing for Criminal Justice	3.0
AJ 74	Multicultural Issues in Public Safety	3.0

AUTOPSY ASSISTANT CERTIFICATE

20.5 units

***Pending Chancellor Office Approval**

This Certificate prepares the student for employment with the Sheriff/Coroner as an Autopsy Assistant.

<i>All of the following must be completed:</i>		Units
ALDH 139	Medical Terminology	3.0
AJ 67	Crime Scene Investigation	3.5
PHOT 101	Intermediate Photo	3.0
AJ 145	Introduction to Criminal Investigation	3.0
AJ 133	Writing for Criminal Justice	3.0
BIOL 211	Human Anatomy	5.0

CORRECTIONAL SCIENCE CERTIFICATE

18.0 units

***Pending Chancellor Office Approval**

All of the following must be completed with a grade of "C" or better.

		Units
AJ 103	Criminal Law	3.0
AJ 127	Crime and Delinquency	3.0
AJ 201	Multicultural Issues in Public Safety	3.0
AJ 132	Introduction to Corrections	3.0
AJ 73	Legal Aspects of Corrections	3.0
AJ 133	Writing for Criminal Justice	3.0

CORRECTIONS CERTIFICATE**8.0 units**

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

		Units
AJ 64	Basic Corrections Officer Academy	8.0

FINGERPRINT RECOGNITION AND CLASSIFICATION CERTIFICATE**2.5 units**

		Units
AJ 31	Fingerprint Recognition and Classification	2.5

FORENSIC SPECIALIST CERTIFICATE**3.5 units**

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.

		Units
AJ 67	Crime Scene Investigation	3.5

JUVENILE COUNSELOR COURSE CERTIFICATE**6.0 units**

The Juvenile Counselor Course is required for all Probation Officers working in a Juvenile Intake Center

		Units
AJ 75	Juvenile Counselor Course	6.0

LAW ENFORCEMENT MODULAR COURSE LEVEL III CERTIFICATE**6.5 units**

The following 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.

		Units
AJ 80	Level III Modulated Basic Course	6.5

MODULE A RESERVE ACADEMY FIREARMS ONLY CERTIFICATE**0.5 unit**

		Units
AJ 30	Firearms Training	0.5

LAW ENFORCEMENT MODULAR COURSE - LEVEL II CERTIFICATE

The following 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.

15.5 units

		Units
AJ 80	Level III Modulated Basic Course	6.5
AJ81	Level II Modulated Basic Course	9.0

PC 832 LAW ENFORCEMENT COURSE CERTIFICATE

Prepares the student to meet the minimum requirements as a non-designated Level III Reserve Peace Officer, or, as a designated limited-duty peace officer. This certificate program complies with the Commission on Peace Officer Standards and Training.

3.0 units

		Units
AJ 58	PC 832 Law Enforcement Course	3.0

SCHOOL POLICE COURSE: PC 832.3 CERTIFICATE**2.0 units**

		Units
AJ 8	PC 832.3 Campus Law Enforcement	2.0

POLICE TECHNICIAN SPECIALIST CERTIFICATE

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

Requirements 15.5 units minimum

All of the following must be completed:

	Units	
AJ 103	Criminal Law	3.0
AJ 126	Traffic 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, complete the following courses prior to transfer if possible:

California State University, San Bernardino Criminal Justice major

AJ 101, 103
Optional: Select one course from the following:
MATH 105, H105, or 132
CSU General Education-Breadth Requirements

Chapman University, Victorville Criminal Justice major
(See Table 5 in Section VII of this catalog.)**University of LaVerne, Victorville Criminal Justice major (online)**
(See Table 6 in Section VII of this catalog.)

Business Administration is also a highly recommended bachelor's degree major for people in this field who are seeking advancement. See Business Administration for requirements for this major.

AGRICULTURE AND NATURAL RESOURCES

California and the United States are rapidly reaching a crisis situation in the management and preservation of natural resources. The recent crisis with energy in California bears witness to this fact. The most important issues concern the critical resources of food, energy, water, air, wildland and wildlife. It is essential that our society be taught a greater awareness of the need to conserve and wisely manage these resources. Careers and the public and private entities that manage and use these resources are expanding rapidly as the critical nature of these issues become more apparent. Individuals that are trained in agricultural and natural resource principles and issues are perfectly positioned to take advantage of these exciting opportunities.

The Agriculture and Natural Resource Department is intent on providing students with the training and resources needed to compete in this rapidly expanding career field and the skills needed to continue their studies in this arena. The department has designed its educational programs on the following premises:

1. A focus on the underlying scientific principles and math skills that support the disciplines of agriculture and natural resource management.
2. Application of advanced technologies that include the management of data with sophisticated computer software, Geographic Information Systems (GIS), Global Positioning Systems (GPS) and Remote Imaging Technology.
3. A focus on "Complete Ecosystem Management," that balances the need to preserve natural ecological relationships with the social and economic needs of the humans that use a particular ecosystem or region.
4. Provide increased "hands-on" learning and field experiences. The skills needed to be successful in these 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, Landscape Design and Management, Landscape Irrigation, Floral Design, Natural Resource Management, Geographic Information Science, Water Resource Management, and Equine and Animal Science.

Career Opportunities

Agriculture and Conservation Extension Officer
 Agricultural and Food Inspectors
 Agriculture and Natural Resource Educators
 Arborists and Tree Pruning Technicians
 Cartographic Technicians
 Environmental and Natural Resource Planner
 Farm, Ranch Hands and Managers
 Field Biologists
 Floral Design Technicians and Floral Shop Managers
 GIS Analysts
 Horticulture, Irrigation and Fertilizer Industry Sales Representatives
 Irrigation Specialists
 Landscape Architects and Designers
 Landscape Construction/Installation Contractors
 Landscape Maintenance Technicians
 Natural Resource Research Technicians
 Nursery Technicians and Managers
 Park and Wildlife Managers
 Plant Breeders, Propagators and Growers

Turf Grass Managers
 Water, Soils and Biotechnology Lab Technicians
 Water Use, Education and Conservation Technicians
 Zoo, City, Country Club and Botanic Garden Horticulturists

Faculty

Full-time
 Neville Slade

Degrees and Certificates Awarded

Associate in Science, Environmental Horticulture
 Animal Science Technician Certificate
 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

11.0 or 12.0 units

Group I - All of the following must be completed:

		Units
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

15.0, 16.0, OR 17.0 units

Group I - All of the following must be completed: 13 units

		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 Tech	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 109	Field Biology	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
PSCI 114	Environment and Energy	3.0

ENVIRONMENTAL FIELD STUDIES CERTIFICATE

The purpose of this certificate is to teach the state-of-the-art technologies and science of natural resource management. Engage students with their environment through community conservation projects, field studies and applied environmental research. Highlight the diversity and depth of career opportunities and advanced study. Promote linkage with local businesses, government agencies and community groups via partnerships, joint projects, internships, guest speakers and workshops.

10.0 units

All of the following must be completed:

	Units	
AGNR 74	Conversation and Sustainability Practices	6.0
AGNR 170	Environmental Science	4.0

EQUINE SCIENCE SPECIALIST CERTIFICATE

Introduces students to the diverse and exciting horse industry in California. Provides the scientific basis to continue studies in this field.

7.0 units

All of the following must be completed:

	Units	
AGNR 100	General Animal Science	3.0
AGNR 102	Equine Science	4.0

FLORAL DESIGN CERTIFICATE

The core of the specialized courses in the Floral Design Certificate have been selected to prepare the student for employment in a commercial flower shop as a designer or assistant to the manager. These classes are taught by professionals in the industry and opportunities for success as a florist are unlimited. Whether for fun or profit, floral design is rapidly becoming a growing industry. Anyone desiring a career as a florist can be assured of advancement by acquiring this state-of-the-art certificate.

14.0 units

Group I - All of the following must be completed:

	Units	
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 160	Beginning Floral Design	3.0
AGNR 161	Floral Design II	2.0
AGNR 140	Plant Materials & Usage I	3.0

Group II - One of the following must be completed:

AGNR 122	Plant Propagation and Production	3.0
AGNR 153	Landscape Maintenance	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 60	Environmental Horticulture Lab	3.0
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
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GEOSPATIAL TECHNICIAN CERTIFICATE

Geospatial Information Systems Science is one of the fastest growing industries in the world today. While the rest of the technology sector has been working to recover from economic hardships, the GIS industry has grown to a \$30 billion per year enterprise and whose influence and utility is creating a symbiotic relationship and integration throughout industry, business, and government. This certificate is designed to introduce the students to various scientific theoretical aspects associated with this field and prepare them to enter this exciting field as a technician. There is also a "hands on" component where the students are introduced to the highly sophisticated software packages through real-world conservation projects with local agencies and businesses.

13.0, 14.0, or 15.0 units

Group I - All of the following must be completed:

	Units	
AGNR 72	Geospatial Technology I	4.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed:

AGNR 60	Environmental Horticulture Lab	3.0
AGNR 73	Water Science	3.0
AGNR 75	Conservation Research Lab	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials and Usage II	3.0
AGNR 148	Special Topics	2.0
ANTH 6	Introduction to GIS for the Social Sciences	3.0
BIOL 109	Field Biology	4.0
CIS 96A	Structured Query Language A Using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIDG 280	Geographical Information Systems I	3.0
CIDG 281	Geographical Information Systems II	3.0
GEOG 101	Physical Geography	3.0
GEOL 103	California Geology	3.0

LANDSCAPE SPECIALIST CERTIFICATE

The Landscape Specialist Certificate prepares the student to design, install and maintain landscapes. Focuses on the special challenges of drought tolerant and cold hard landscapes.

20.0 units minimum

Group I - All of the following must be completed:

	Units	
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 122	Plant Propagation & Production	3.0

AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 131	Soil Science	3.0
AGNR 60	Horticulture Lab	4.0
CMST 109	Public Speaking	3.0
BIOL 109	Field Biology	4.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 131	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	2.0 or 3.0

LANDSCAPE IRRIGATION CERTIFICATE

The Landscape Irrigation Certificate prepares the student to design, install and maintain irrigation systems.

11.0 units

Group I - All of the following must be completed:

		Units
AGNR 152	Landscape Irrigation	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 129	Water Efficient Landscaping	3.0

Group II - One of the following must be completed:

AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 151	Landscape Construction	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 150	Landscape Design	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 60	Horticulture Lab	2.0, 3.0 or 4.0
AGNR 73	Water Science	3.0

HORTICULTURE SPECIALIST CERTIFICATE

The Horticulture Specialist Certificate prepares the student with the basics of establishing and/or managing a horticulture business and a wholesale or retail nursery. This certificate serves as a good crossover for students wishing to enter a natural resource management career.

23.0 units

Group I - All of the following must be completed:

		Units
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0
AGNR 131	Soil Science	3.0
AGNR 141	Plant Materials Usage II	3.0

Group II - Two of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 153	Landscape Maintenance Fundamentals	2.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to GIS	3.0
AGNR 60	Horticulture Lab	2.0 or 3.0 or 4.0
CMST 109	Public Speaking	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 109	Field Biology	4.0
BIOL 104	General Botany	4.0
CT 107	Technical Math	3.0
CT 140	Microcomputers in Construction	4.0
AGNR 138	Cooperative Education	2.0 or 3.0

HORTICULTURE AND LANDSCAPE TECHNICIAN CERTIFICATE

The Horticulture and Landscape Technician Certificate prepares the student for entry level positions within the nursery and landscaping industries.

11.0 units

Group I - All of the following must be completed:

		Units
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 140	Plant Materials and Usage I	3.0

Group II - One of the following must be completed:

AGNR 151	Landscape Construction	3.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 160	Basic Floral Design	3.0
AGNR 152	Landscape Irrigation	3.0
AGNR 150	Landscape Design	3.0
AGNR 154	Landscape and Nursery Management	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 141	Plant Materials Usage II	3.0

MOJAVE DESERT MASTER GARDENER CERTIFICATE

2.0 units

		Units
AGNR 80	Master Gardener	2.0

NATURAL RESOURCE MANAGEMENT CERTIFICATE

15.0 or 17.0 units

Group I - All of the following must be completed:

		Units
AGNR 123	Introduce to Plant Science	3.0
AGNR 131	Soil Science	3.0
AGNR 170	Environmental Science	4.0
AGNR 171	Introduction to Geographic Information Science	3.0

Group II - One of the following must be completed: 2, 3, 4 units

AGNR 60	Environmental Horticulture Lab	2.0, 3.0, or 4.0
AGNR 72	Geospatial Technology I	4.0
AGNR 73	Water Science	3.0
AGNR 75	Conservation Research Lab	2.0, 3.0, or 4.0
AGNR 120	Pest Management in Environmental Horticulture	3.0
AGNR 121	Fundamentals of Environmental Horticulture	3.0
AGNR 122	Plant Propagation & Production	3.0
AGNR 129	Water Efficient Landscaping	3.0
AGNR 140	Plant Materials Usage I	3.0
AGNR 141	Plant Materials Usage II	3.0
AGNR 148	Special Topics	2.0
AGNR 151	Landscape Construction	3.0
AGNR 152	Landscape Irrigation	3.0
BIOL 71	Introduction to Lab Tech	3.0
BIOL 104	General Botany	4.0
BIOL 109	Field Biology	4.0
BIOL 127	ID/Study of Amphibians/Reptiles of Mojave Desert	3.0
BIOL 129	ID/Study of Mammals of Mojave Desert	3.0
CHEM 114	Environmental Chemistry	3.0
GEOG 103	Geography of California	3.0
GEOL 103	California Geology	3.0
FIRE 65	Basic Wildland Fire Control	2.0
PSCI 114	Environment and Energy	3.0

Associate Degree

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

Transfer

Campuses that offer Environmental Horticulture and Animal Science majors or concentrations include: CSU-Chico, Fresno, Pomona, & CSU - Stanislaus.

Refer to ASSIST at www.assist.org for major preparation requirements.

University of California, Riverside Botany and Plant Sciences major

University of California, Davis Plant Science Animal Science

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

ALCOHOL AND DRUG STUDIES

Programs in Alcohol and Drug Studies are usually offered at community colleges and focus on aspects of alcohol and drug abuse and techniques in counseling those who have a substance abuse problem. At this time, Victor Valley College does not offer a certificate in Alcohol and Drug Studies, but the following courses fulfill some requirements for the Alcohol/Drug Studies Certificate at San Bernardino Valley College:

ALDH 125, ENGL 101, PSYC 101, 108, 125, 133, SOC 101, CMST 109.

Students should fulfill the general education requirements for San Bernardino Valley College if they plan to earn an associate degree. San Bernardino Valley College requires 6 units of humanities, 4 units natural science with lab, and 2 units of physical education in addition to the certificate requirements to earn an associate degree. Contact SBVCC for updated information: (909) 888-6511.

ALLIED HEALTH

The Allied Health department offers a variety of independent, non-program classes in health interest areas. Some may enable students to work by completing only one class, such as Medical Insurance, Certified Nursing Assistant, EMT, or Basic Arrhythmias. Others support various medical and secretarial programs or meet general interest needs.

The Paramedic and Medical Assistant programs are also in the Allied Health Department but are described in separate sections. For course descriptions, see Section IX of this catalog.

Career Opportunities

Insurance Biller
Monitor Technician
Nursing Assistant
Phlebotomist

Faculty

Full Time
John Doyle
Robert Flome

Degrees and Certificates Awarded

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

Certificate Program

CERTIFIED PHLEBOTOMY TECHNICIAN 1A CERTIFICATE

This certificate prepares the student to take the state certification exam and to be employed as a phlebotomist in a doctor's office, hospital or independent clinical laboratory.

5.0 units

All of the following must be completed with a grade of "C" or better.

Units

ALDH 90A Certified Phlebotomy Technician IA 5.0

CERTIFIED PHLEBOTOMY TECHNICIAN 1B CERTIFICATE

All of the following must be completed with a grade of "C" or better.

3.0 units

Units

ALDH 90B Certified Phlebotomy Technician IB 3.0

CERTIFIED PHLEBOTOMY TECHNICIAN 1C CERTIFICATE

All of the following must be completed with a grade of "C" or better.

1.5 unit

Units

ALDH 90C Certified Phlebotomy Technician IC 1.5

NURSING ASSISTANT/ HOME HEALTH AIDE CERTIFICATE

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

6.0 units

ALDH 60 Nursing Assistant 4.5
ALDH 61 Home Health Aide 1.5

Associate Degree

No associate degree is awarded with a major in Allied Health. Allied Health courses fulfill requirements for certificates and majors in Business Education Technologies, Medical Assistant, and Paramedic. See specific programs for certificate and degree requirements. ALDH 138 (Cooperative Education) may be used as elective credit but may not be used to fulfill major requirements.

Transfer

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

ANIMATION

See **Media Arts** and **Computer Integrated Design and Graphics**.

ANTHROPOLOGY

Training in anthropology will prepare one for any career that involves working on the interface between cultures. Specialized preparation in this subject can lead to some of the world's most interesting work - the study of existing lifeways, archaeological excavation and interpretation, primate behavior, and social research into economics, politics, law, religion, art, and music. For course descriptions, see Section IX of this catalog.

Career Opportunities

Careers in anthropology are diverse, specialized, and related to the various areas of concentration which are offered at four-year college and universities: Listed below are just a few examples:

Archaeologist - Federal/State/Private
Cultural Resource Management
Environmental Impact Analyst
Expedition Guide
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

GIS For The Social Sciences Certificate

Certificate Program

GIS FOR THE SOCIAL SCIENCES CERTIFICATE

12.0 unit

All of the following must be completed:

		Units
ANTH 6	Introduction to GIS for the Social Sciences	3.0
ANTH 7	Intermediate GIS for the Social Sciences	3.0
ANTH 8	Advanced GIS for the Social Sciences	3.0
ANTH 9	Field Applications in GIS for the Social Sciences	3.0

Associate Degree

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

Transfer

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

California State University, San Bernardino

Anthropology major

ANTH 101, 102, 101L

CSU General Education-Breadth Requirements

University of California, Riverside

Anthropology major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information (909) 787-4531. Completion of IGETC recommended.

ARCHITECTURE

Victor Valley College does not offer an Architecture program but does offer preparatory courses for transfer into Architecture.

An architect develops concepts for design projects which range from single objects such as a piece of furniture to complex, high-rise office buildings. The Architecture program is centered on the design laboratory experience with students progressing toward comprehensive architectural projects.

Architecture is an impacted major at some universities. As a result, students need to maintain a high GPA, complete as many course requirements as possible before applying for admission, and research all additional program requirements for specific colleges to which they will be applying.

A portfolio of each prospective student's work is usually required with the application. Therefore, students need to contact the college of choice early in their education to assure proper presentation of their work.

Transfer

Campuses that offer Architecture include:

CSU-Pomona & San Luis Obispo

ART AND DESIGN

Art and design are an integral part of our daily lives as creative expression and as commercial applications. Humankind is reflected in great works of art throughout time, depicting our deeds and actualization. A study in art and design will lead to the development of a diverse range of career possibilities that span from self-expression to commercial design.

Students may choose a program leading to an AA degree, and courses in art are transferable to four-year colleges. Consult with the department chairperson for specialized areas of interest. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising
Architectural Designer
Commercial Artist/Graphic Designer
Computer Graphics/Imaging/Animation
Film Maker
Interior Designer
Medical Illustrator
Photographer/Fine-Art, Commercial
Theatre Set Designer
Video Director

Faculty

Full time

Frank Foster
Richard Ripley
Brent Wood

Degrees and Certificates Awarded

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

Certificate Program

No certificates awarded.

Associate Degree

No associate degree awarded with a major in Art. Art courses may be used to fulfill requirements for an Associate of Arts degree with a major in Fine Arts or Liberal Arts. See Fine Arts or Liberal Arts for degree requirements for these majors. ART 138 (Cooperative Education) may be used as elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Art major

Plans I, II: ART 101, 102, 112, 113, 114, 125, 133, 141, PHOT 100
Plan III: Add any foreign language 1 and 2 or equivalent proficiency French or German preferred.
CSU General Education-Breadth Requirements
Plan IV: ART 101, 102, 112, 113/114, 125, 133
Plan V: BADM 101/103, ART 101, 102, 112

University of California, Riverside

Art major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. Completion of IGETC recommended.

ATHLETICS

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

To meet this philosophic commitment, Victor Valley College athletic offerings include football, softball, men's and women's tennis, women's volleyball, men's and women's basketball, wrestling, golf, men's and women's soccer, men's and women's cross country, men's and women's track and field, and baseball.

Victor Valley College is a member of the Foothill Athletic Conference and also competes with other community college conferences, California State and University junior varsity teams, private colleges, and service teams. A student must be enrolled in 12 units to participate in the intercollegiate athletic program. Student athletes are granted up to two years of eligibility per sport but must complete 24 units between seasons of competition with a "C" or better grade average in order to be eligible for the second year.

There are other factors that are essential in determining eligibility, and athletes should consult with the Eligibility Evaluator regarding eligibility matters. All varsity athletic classes meet 10 laboratory hours per week for 3 units. CSU, UC (UC credit limitation). For course descriptions, see Section IX of this catalog.

SEASON OF SPORT

Fall	Spring
Basketball (M-W)	Basketball (M-W)
Cross Country (M-W)	Baseball (M)
Football (M)	Golf (M)
Soccer (M-W)	Softball (W)
Volleyball (W)	Tennis (M-W)
Wrestling (M)	Track and Field (M-W)

AUTOMOTIVE TECHNOLOGY

Mission Statement

It is the mission of the Automotive Department of Victor Valley Community College to provide quality automotive instruction to a diverse community of students; the array of courses offered shall serve the educational needs of the beginning student as well as the employed professional. Through industry input the department shall strive to create 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.

Victor Valley College's automotive program is designed to give the student a thorough and complete knowledge of the basics of the modern automobile. The program is capable of training the student to entry-level performance on the latest industry approved equipment.

Career Opportunities

Federally recognized ASE certification in eight (8) categories
Parts Salesperson
Repair Shop Owner or Operator
State Certified Pollution Control Technician
Tune-up Technician

Faculty

Full time

Lee Bennett
Dan Rowland
John Sweet

Degrees and Certificates Awarded

Associate in Science, Automotive Technology
Automotive Brake and Suspension Specialist Certificate
Automotive Drivability Specialist Certificate
Automotive Inspection and Maintenance Technician Certificate
Automotive Repair Shop Manager Certificate
Automotive Specialist I Certificate
Automotive Specialist II Certificate
Automotive Technician Certificate
Automotive Transmission Specialist Certificate
Automotive Window Tinting Technician Certificate
Basic Inspection Area Smog Certificate
Collision Repair Technician Certificate
Engine Machinist Specialist Certificate
Enhanced Inspection Area Smog Technician Certificate
Heavy Duty Diesel Truck Lubrication and Inspection Specialist Certificate
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

8.0 units

All of the following must be completed with a grade of "B" or better:
These classes can be taken in any order.

	Units
AUTO 61 Automotive Brakes	4.0
AUTO 60 Automotive Suspension and Alignment	4.0

AUTOMOTIVE DRIVEABILITY SPECIALIST CERTIFICATE

8.0 units

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order.

	Units
AUTO 79B Trouble Shooting and Repair of Ignition and Fuel Systems	4.0
AUTO 80A Automotive Computers, Electronics, and Electrical Systems	4.0

AUTOMOTIVE INSPECTION AND MAINTENANCE TECHNICIAN CERTIFICATE

6.0 units

All of the following must be completed with a grade of "B" or better:
These classes can be taken in any order.

	Units
AUTO 79A Basic Tune Up	2.0
AUTO 58 Automotive Lubrication Technician	2.0
AUTO 59 Automotive Tire Technician	2.0

AUTOMOTIVE REPAIR SHOP MANAGER CERTIFICATE

11.0 units

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order.

	Units
AUTO 50 Introduction to Automotive Technology	4.0
AUTO 77.0 Automotive Service Writer and Shop Management or concurrently with AUTO 50	2.0
AUTO 77L* Automotive Service Writer and Shop Management Lab (2 times) or concurrently with AUTO 77	4.0
BET101 Beginning Keyboarding/Typing can be taken anytime during the program	1.0

*Note: AUTO 77L must be completed two times

AUTOMOTIVE SPECIALIST I CERTIFICATE (ENGINE REPAIR, DRIVE TRAIN, CHASSIS)

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.

	Units
AUTO 51 Automotive Engines and Drive Trains	12.0
AUTO 57 Brakes, Wheel Alignment, and Suspension	12.0

AUTOMOTIVE SPECIALIST II CERTIFICATE (ENGINE PERFORMANCE, ELECTRONICS [AUTO], POLLUTION CONTROL)

24.0 units

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:

	Units
AUTO 79 Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80 Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TECHNICIAN CERTIFICATE (ENGINE PERFORMANCE, ENGINE REPAIR, ELECTRONICS [AUTO], DRIVE TRAIN, POLLUTION CONTROL, CHASSIS)

This certificate is obtained upon successful completion of Automotive Specialist I and II and provides the student excellent entry-level skills in a wide range of automotive repair fields.

48.0 units

(Successful completion of Specialist I and II)

All of the following must be completed:

	Units
AUTO 51 Automotive Engines and Drive Trains	12.0
AUTO 57 Brakes, Wheel Alignment, and Suspension	12.0
AUTO 79 Tune-up, Pollution Control, and Fuel Systems	12.0
AUTO 80 Automotive Computers, Electronics, and Electrical Systems	12.0

AUTOMOTIVE TRANSMISSION SPECIALIST CERTIFICATE

12.0 units

All of the following must be completed with a grade of "B" or better:

	Units
AUTO 55 Manual Transmission Overhaul	5.0
AUTO 56A Electronic Computer Transmission Controls	2.0
AUTO 56 Automatic Transmission Overhaul	5.0

AUTOMOTIVE WINDOW TINTING TECHNICIAN CERTIFICATE

8.0 units

All of the following must be completed with a grade of "B" or better:

	Units
AUTO 94A Automotive Window Tinting I	4.0
AUTO 94B Automotive Window Tinting II	4.0

BASIC INSPECTION AREA SMOG TECHNICIAN CERTIFICATE

16.0 units

All of the following must be completed with a grade of "B" or better:

	Units
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

14.0 units

All of the following must be completed with a grade of "B" or better:

	Units
AUTO 91A Auto Body Repair I	4.0
AUTO 91B Auto Body Repair II	5.0
AUTO 92 Auto body Damage Estimating I	1.0
AUTO 91L* Automotive Auto Body Laboratory	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**12.0 units**

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order

		Units
AUTO 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****13.5 units**

All of the following must be completed with a grade of "B" or better:
These classes can be taken in any order

		Units
AUTO 80	Automotive Computers, Electronics and Electrical Systems	12.0
AUTO 84	Advanced California Clean Air Car Course	1.5

**HEAVY DUTY DIESEL TRUCK LUBRICATION AND
INSPECTION SPECIALIST CERTIFICATE****4.0 units**

All of the following must be completed with a grade of "B" or better:
These classes can be taken in any order

		Units
AUTO 65	Heavy Duty Diesel Truck Lubrication and Inspection Technician	4.0

**HEAVY DUTY TRUCK BRAKE REPAIR SPECIALIST
CERTIFICATE****10.0 units**

All of the following must be completed with a grade of "B" or better:
These classes can be taken in any order

		Units
AUTO 67	Heavy Duty Truck Air Brakes	4.0
AUTO 68	Heavy Duty Truck Hydraulic	6.0

**IMPORT SPORT TUNING AND CUSTOMIZATION
CERTIFICATE****16.0 units**

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order

		Units
AUTO 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**16.0 units**

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order

		Units
AUTO 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****17.0 units**

All of the following must be completed with a grade of "B" or better:
These classes should be taken in the following order

		Units
AUTO 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**3.0 units**

All of the following must be completed with a grade of "B" or better:

		Units
AUTO 70	Small Engine Repair	3.0

Associate Degree

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

Transfer

Not a transfer major.

AVIATION**Degrees and Certificates Awarded**

General Aviation Maintenance Technology Certificate
Airframe - Aviation Maintenance Technology Certificate
Powerplant - Aviation Maintenance Technology Certificate

Certificate Programs

**GENERAL AVIATION MAINTENANCE TECHNOLOGY
CERTIFICATE****14.0 units**

		Units
AVA 51	General Aviation I	7.0
AVA 52	General Aviation II	7.0

**AIRFRAME - AVIATION MAINTENANCE
TECHNOLOGY CERTIFICATE****21.0 units**

		Units
AVA 61	Airframe I	7.0
AVA 62	Airframe II	7.0
AVA 63	Airframe III	7.0

**POWERPLANT - AVIATION MAINTENANCE
TECHNOLOGY CERTIFICATE****21.0 units**

		Units
AVA 71	Powerplant I	7.0
AVA 72	Powerplant II	7.0
AVA 73	Powerplant III	7.0

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). Student who place in English 6 or English 50 and are interested in reviewing their grammar skills should enroll in BSKL 5 Beginning English Grammar (2units).

Students who want to move more gradually towards English 6 should begin with BSKL 1-A Reading and Writing One-A and then take BSKL 1-B Reading and Writing One-B. They should then take BSKL 2-A Reading and Writing Two-A and then BSKL 2-B Reading and Writing Two-B.

To prepare for Math 10, students should enroll in BSKL 6 Math Operations with Whole Numbers (1 unit) and then BSKL 7 Math Operations with Rational Numbers (1 unit). Student who place in Math 50 and are interested in a review should enroll in BSKL 9 Fractions, Decimals and Percentages (1 unit).

BIOLOGICAL SCIENCE

The biological science courses are designed to meet a variety of student requirements. Some courses are designed to fulfill the laboratory general education requirement.

Biology and preprofessional majors will find rigorous, comprehensive classes. Other classes, including non-laboratory, are offered for non-majors and those with special interest areas. A certificate in Biotechnology is also offered. For course descriptions, see Section IX of this catalog.

Career Opportunities

(May require advanced degree)
Environmental Analyst
Forestry
Laboratory Technician
Range Management

Faculty

Full Time

David Gibbs
Jessica Gibbs
Lisa Harvey
Hinrich Kaiser
Pam MacKay

Degrees and Certificates Awarded

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

Certificate Program

CERTIFICATE IN BIOTECHNOLOGY

The certificate in Biotechnology is geared towards students interested in gaining entry level jobs in the laboratory, and can apply to the many different areas within the biotechnology industry such as clinical, forensic, or agricultural applications. Students pursuing this certificate will gain a basic biological foundation (BIOL 100 or 107), followed by an overview of the Biotechnology profession (BIOL 70) along with classes instructing technique (BIOL 71) and application of skills.

16.0 units

Group I - All of the following must be completed:

		Units
BIOL 100 or 107	General or Human Biology	4.0
BIOL 70	Introduction to Biotechnology	5.0
BIOL 71	Introduction to Laboratory Technique	4.0
AND		
<i>Group II - Complete 3.0 units from courses below:</i>		
BIOL 72/ CHEM 72	Biomolecular Science	3.0
BIOL 52	Forensic Entomology	3.0
BIOL 54	Forensic Pathology	3.0
ANTH 53	Forensic Anthropology	3.0
AGNR 122	Plant Propagation	3.0
AGNR 71	GIS in Natural Resources	3.0
BIOL 129	Independent Study in Biology	1.0-3.0
BIOL 98	Projects in Biology	1.0-3.0

Associate Degree

No associate degree offered with a major in Biological Science. Biology courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. Biology courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Math/Science or Liberal Arts for degree requirements for these majors. BIOL 138 (Cooperative Education) may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Biology major

BIOL 201, 202, 203, CHEM 201, 202, 281+282, MATH 226/H226
One group from following:
PHYS 221 + 222 or PHYS 201, 202, 203 + H204
CSU General Education-Breadth Requirements

University of California, Riverside

Biology major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information
IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

BUSINESS

Degrees and Certificates Awarded

Associate in Science, Business

Associate Degree

Students may earn an Associate in Science degree with a major in general Business by completing a minimum of 18 units from any certificate offered in the departments of Business Administration, Business Education Technologies, and Business Real Estate and Escrow or from a blend of courses from any of these departments or certificates.

The minimum 18 units for the general Business major may come from the following:

- ALDH 139, 80, 81, 82
- CIS 101, 52, 61
- ECON 101, 102
- MATH 105, 120
- Any Business Administration course, except
BADM 138
- Any Business Education Technology course, except
BET 138
- Any Business Escrow course, except BESC 138
- Any Business Real Estate course, except BRE 138

Students are encouraged to major in Business Administration, Business Education Technologies, or Business Real Estate and Escrow rather than general Business when possible to assure a stronger curriculum base.

Transfer

See Business Administration or Business Education Technologies for transfer requirements.

BUSINESS ADMINISTRATION

The Business Administration Department offers a variety of courses in business which allows a student to comply with the lower-division requirements for transfer to university level programs. Courses are also offered which allow the student to prepare for career entry-level positions and for upgrading of job skills for the already career-oriented student.

The department offers two certificates: a Management Certificate and Bookkeeping I Certificate. The Certificates are designed for those students interested in entering the field of business or for those who are currently working and would like to upgrade their business skills. Students completing the Management Certificate will have entry-level management knowledge and skills. Students completing the Bookkeeping I Certificate will have entry-level bookkeeping/accounting clerk skills. These certificates will also indicate that the student has completed a series of courses for skill upgrading for those already employed.

In addition to the certificates, students may also earn an Associate of Science Degree in Business Administration. Many of the Business Administration Department courses are offered online via the Internet, allowing a student to earn the Management Certificate and/or the AS Degree through distance education. See the current Schedule of Classes for a listing of online classes.

Those students planning to transfer to an upper-division institution should select their courses with the assistance of a counselor since each transfer institution has unique requirements. For course descriptions, see Section IX of this catalog.

Career Opportunities

Positions from entry-level to mid-management may be reasonable expectations upon completion of either the Degree or the Certificate programs in the fields of retailing, merchandising, service-related businesses, bookkeeping, and manufacturing firms. Some possible position titles include:

- Accounting Clerk/Bookkeeper
- Administrative Assistant
- Department Manager
- Human Resource Manager
- Marketing Manager
- Merchandise Buyer
- Merchandise Manager
- Office Manager
- Purchasing Management
- Salesperson
- Store Manager

Faculty

Full Time

- Peter Allan
- David Hollomon
- O. Odell Moon
- Henry Young

Degrees and Certificates Awarded

- Associate in Science, Business Administration
- Bookkeeping I Certificate
- Management Certificate

Certificate Programs

BOOKKEEPING I CERTIFICATE

The Bookkeeping I Certificate is designed to give the student entry-level skills as an accounting clerk or bookkeeper. These skills include the ability to sort, record, and file accounting data, as well as perform general accounting tasks and assist in the processes of summarizing and analyzing accounting information, both manually and using a computerized accounting program.

16.0 units

All of the following must be completed:

		Units
BADM 106	Accounting on Microcomputers I	2.0
BADM 107	Accounting on Microcomputers II	2.0
BADM 100	Introduction to Business Organization	3.0
BADM 142	Business Mathematics	3.0
BADM 50	Applied Accounting I	3.0
BADM 51	Applied Accounting II	3.0

MANAGEMENT CERTIFICATE

Upon completion, the Management Certificate will give the student basic skills and education to become an entry-level manager in retailing, merchandising, service-related businesses, and manufacturing firms.

31.0 units minimum

Group I - All of the following must be completed:

		Units
BADM 101	Elementary Accounting	4.0
<i>OR</i>		
BADM 103	Financial Accounting	3.0
BADM 110	Principles of Management	3.0
BADM 117	Legal Environment of Business	3.0
BADM 100	Introduction to Business Organizations	3.0
BADM 142	Business Mathematics	3.0
BADM 144	Business Communications	3.0
CIS 101	Computer Literacy	4.0

Group II - One of the following must be completed:

BADM 112	Introduction to Marketing	3.0
BADM 122	Small Business Management	3.0

Group III - One of the following must be completed:

ECON 101	Principles of Economics [Macro]	3.0
ECON 102	Principles of Economics [Micro]	3.0

Group IV - One of the following must be completed:

BADM 109	Human Resource Management	3.0
BADM 111	Introduction to Public Administration	3.0
BADM 116	Human Relations in Business	3.0
BADM 52	Elements of Supervision	3.0

Associate Degree

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

Transfer

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

California State University, San Bernardino Administration major

BADM 101 or 103 + 102 or 104, 117, ECON 101, 102, CIS 101, MATH 120

Contact a counselor for information on additional major coursework required in various concentrations.

University of California, Riverside Business Administration major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. Completion of IGETC recommended.

Azusa Pacific University, Victorville Organizational Leadership major

(See Table 4 in Section VII of this catalog.)

Chapman University, Victorville Organizational Leadership major

(See Table 5 in Section VII of this catalog.)

University of LaVerne, Victorville Three related majors

(See Table 6 in Section VII of this catalog.)

Southern Illinois University, Riverside Workforce Education and Development Corporate Training major

(See Table 8 in Section VII of this catalog.)

BUSINESS EDUCATION TECHNOLOGIES

The study of Business Education Technologies is designed to prepare students for a variety of careers in high-tech business offices. Transfer level courses are available for students preparing for a bachelor's degree. Certificates of Achievement and the Associate in Science degree are awarded.

Career Opportunities

- Administrative Assistant
- Data Entry
- Desktop Publishing
- Executive Secretary
- General Clerk
- Office Manager
- Receptionist
- Stenographer
- Teacher
- Typist
- Transcription Machine Operator

Faculty

Full Time

- Barbara Becker
- Becky Palmer

Degrees and Certificates Awarded

- Associate in Science, Business Education Technologies
- Administrative Assistant Certificate
- Computer Systems I Certificate
- Computer Systems II Certificate
- Data Typist Certificate
- Legal Office Certificate
- Medical Office Certificate
- Office Services Certificate
- Spreadsheet Processor Certificate
- Word Processor Certificate

Certificate Programs

ADMINISTRATIVE ASSISTANT CERTIFICATE

This curriculum is designed to prepare students for employment in business/industry/government for higher-level executives. Duties include office supervision, word processing, maintaining office records and accounts.

34.0 units

(Group I: 28 units, Group II: 6 units)

Group I - All of the following must be completed (19 units):

	Units
BADM 106	Accounting on Microcomputers (2.0) 2.0
BET 100	Introduction to Computers (2.0) 2.0
BET 107	Internet Level I (1.0) 1.0
BET 124	Records Management (2.0) 2.0
BET 136	Career Applications for Word Processing (3.0) 3.0
BET 141A	Operating System: Windows (1.0) 1.0
BET 142	Office Technologies and Procedures (3.0) 3.0
BET 74	Office Machine Calculations (2.0) 2.0
BET 112	Spreadsheet: Excel for Windows (3.0) 3.0

3 units must be chosen from one of the following:

BET 103A/B/C	Beginning Word Processing/Typing WordPerfect for Windows (3.0) 3.0
BET 104A/B/C	Beginning Word Processing/Typing Word for Windows (3.0) 3.0

3 units must be chosen from one of the following:

BET 65	Speedwriting (3.0) 3.0
BET 66	Speedwriting\Shorthand Development and Review (3.0) 3.0

3 units must be chosen from one of the following:

BET 143	Business English (3.0) 3.0
BET 68	Proofreading A/B/C (3.0) 3.0

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

ECON 101	Principles of Economics: Macro (3.0)	3.0
BADM 110	Business Management (3.0)	3.0
BET 135	Desktop Publishing: PageMaker (2.0)	2.0
BET 141B/C	Operating System: Windows (1.0-2.0)	1.0-2.0
BET 77	Speed and Accuracy Development (2.0)	2.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 137A/B/C	Desktop Publishing: Microsoft Publisher (1.0-3.0)	1.0-3.0
BET 123T	Machine Transcription (1.0)	1.0
BET 145	Communications for Business (3.0)	3.0
BET 134	Condensed Word Processing (1.0)	1.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0
BET 118	Database: Access A/B/C (1.0-3.0)	1.0-3.0

COMPUTER SYSTEMS I CERTIFICATE

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

10.0 units

(Group I: 3 units, Group II: 7 units)

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

	Units	
BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

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

BET 107	Internet Level I (1.0)	1.0
BET 123T	Machine Transcription (1.0)	1.0
BET 112A/B/C	Spreadsheet: Excel for Windows (1.0-3.0)	1.0-3.0
BET 136	Career Applications for Word Processing (3.0)	3.0
BET 143	Business English (3.0)	3.0
BET 68	Proofreading A/B/C (3.0)	3.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 100	Introduction to Computers (2.0)	2.0
BET 137A/B/C	Desktop Publishing: Microsoft Publisher (1.0-3.0)	1.0-3.0

COMPUTER SYSTEMS II CERTIFICATE

This curriculum is designed to prepare students for the modern computer office. It includes instruction in the most popular business software.

20.0 units

All of the following must be completed:

	Units	
BET 107A	Internet Level I (1.0)	1.0
BET 112A/B/C	Spreadsheet: Excel for Windows (3.0)	3.0
BET 136	Career Applications for Word Processing (3.0)	3.0
BET 141A	Operating System: Windows (1.0)	1.0

3 units must be chosen from one of the following:

BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

6 units must be chosen from the following:

BET 118A/B/C	Database: Access (1.0-3.0)	1.0-3.0
CIS 280	Fundamentals of Database Management Systems (3.0)	3.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 100	Introduction to Computers (2.0)	2.0
BET 137A/B/C	Desktop Publishing: Microsoft Publisher (1.0-3.0)	1.0-3.0

3 units must be chosen from one of the following:

BET 143	Business English (3.0)	3.0
BET 68	Proofreading A/B/C (3.0)	3.0

DATA TYPIST CERTIFICATE

This curriculum is designed to prepare students for entry-level positions as a data entry operator. Duties for this position include general clerical tasks, data entry, and word processing.

16.0 units

(Group I: 9 units, Group II: 7 units)

Group I - All of the following must be completed:

	Units	
BET 136	Career Applications for Word Processing	3.0
BET 68A	Proofreading	1.0
BET 74	Office Machine Calculations	2.0
<i>3 units must be chosen from <u>one</u> of the following:</i>		
BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

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

BET 107	Internet Level I (1.0)	1.0
BET 123T	Machine Transcription (1.0)	1.0
BET 134	Condensed Word Processing (1.0)	1.0
BET 135	Desktop Publishing: PageMaker (2.0)	2.0
BET 137A/B/C	Desktop Publishing: Microsoft Publisher (1.0-3.0)	1.0-3.0
BET 141A	Operating System: Windows (1.0)	1.0
BET 77	Speed and Accuracy Development (2.0)	2.0
BET 112A	Spreadsheet: Excel for Windows (1.0)	1.0
BET 145	Communications for Business (3.0)	3.0
BET 143	Business English (3.0)	3.0
BET 68	Proofreading A/B/C (1.0-3.0)	1.0-3.0
BET 118A/B/C	Database: Access (1.0-3.0)	1.0-3.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0
CIS 280	Fundamentals of Database Management Systems (3.0)	3.0

LEGAL OFFICE CERTIFICATE

This curriculum is designed to prepare students to become a productive secretary in a modern legal office. Duties include maintaining records, word processing, transcription, and general legal office tasks.

28.0 units

All of the following must be completed:

	Units	
BADM 117	Legal Environment of Business (3.0)	3.0
BET 123L	Machine Transcription-Legal (3.0)	3.0
BET 124	Records Management (2.0)	2.0
BET 136	Career Applications for Word Processing (3.0)	3.0
BET 142	Office Technologies and Procedures (3.0)	3.0
BET 74	Office Machine Calculations (2.0)	2.0

3 units must be chosen from one of the following:

BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

3 units must be chosen from one of the following:

BET 65	Speedwriting (3.0)	3.0
BET 66	Speedwriting/Shorthand Development and Review (3.0)	3.0

3 units must be chosen from one of the following:

BET 143	Business English (3.0)	3.0
BET 68	Proofreading A/B/C (3.0)	3.0

3 units must be chosen from **one** of the following:

BET 145	Communications for Business (3.0)	3.0
BET 141A	Operating System: Windows (1.0)	1.0
BET 118A/B/C	DataBase: Access (1.0-3.0)	1.0-3.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 100	Introduction to Computers (2.0)	2.0
BET 112A/B/C	Spreadsheet: Excel for Windows (3.0)	3.0

BET 66	Speedwriting/Shorthand Development and Review (3.0)	3.0
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3 units may be chosen from **one** of the following:

BET 143	Business English (3.0)	3.0
BET 68	Proofreading A/B/C (3.0)	3.0

MEDICAL OFFICE CERTIFICATE

This curriculum is designed to prepare students to effectively carry out front medical office functions. Administrative duties include scheduling and receiving patients, maintaining medical records, office accounts, insurance forms, and transcription. See *Medical Assistant* for a program which includes both front and back office preparation and a clinical component.

30.0 units

All of the following must be completed:

	Units	
BET 123M	Machine Transcription-Medical	3.0
BET 124	Records Management	2.0
BET 136	Career Applications for Word Processing	3.0
BET 142	Office Technologies and Procedures (3.0)	3.0
ALDH 139	Medical Terminology	3.0
ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0

3 units must be chosen from **one** of the following:

BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

1 unit must be chosen from **one** of the following:

BET 141A	Operating System: Windows (1.0)	1.0
BET 118A/B/C	DataBase: Access (1.0-3.0)	1.0-3.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 100	Introduction to Computers (2.0)	2.0
BET 112A/B/C	Spreadsheet: Excel for Windows (3.0)	3.0

OFFICE SERVICES CERTIFICATE

This curriculum is designed to prepare students for entry-level positions in the clerical field and as a receptionist. Entry-level duties include general clerical tasks, filing, and word processing.

11.0 units

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

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

2 units may be chosen from:

BET 124	Records Management (2.0)	2.0
BET 136	Career Applications for Word Processing (3.0)	3.0

3 units must be chosen from **one** of the following:

BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

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

BET 123T	Machine Transcription (1.0)	1.0
BET 142	Office Technologies and Procedures (3.0)	3.0
BET 74	Office Machine Calculations (2.0)	2.0
BET 131A/B/C	Powerpoint I/II/III (1.0-3.0)	1.0-3.0
BET 137A/B/C	Desktop Publishing: Microsoft Publisher (1.0-3.0)	3.0
BET 112A/B/C	Spreadsheet: Excel for Windows (3.0)	3.0
BET 118A/B/C	DataBase: Access (1.0-3.0)	1.0-3.0
BET 122	Intermediate Keyboarding/Typing A/B/C	3.0

3 units may be chosen from **one** of the following:

BET 65	Speedwriting (3.0)	3.0
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SPREADSHEET PROCESSOR CERTIFICATE

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

3.0 units

BET 112A/B/C	Spreadsheet: Excel for Windows	3.0
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WORD PROCESSOR CERTIFICATE

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

3.0 units

3 units must be chosen from **one** of the following:

BET 103A/B/C	Beginning Word Processing/Typing: WordPerfect for Windows (3.0)	3.0
BET 104A/B/C	Beginning Word Processing/Typing: Word for Windows (3.0)	3.0

Associate Degree

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

Transfer

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

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

California State University

Los Angeles
Northridge

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

BUSINESS REAL ESTATE AND ESCROW

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

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

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

The escrow officer is a highly trained individual whose knowledge of real estate transfer for private businesses and estate settlement procedures is essential for the operation of an escrow office.

Career Opportunities

Banking
Developer
Escrow Officer
Escrow Secretary
Loan Broker/Salesman
Property Manager
Real Estate Appraiser
Real Estate Broker
Real Estate Lawyer
Real Estate Salesperson
Real Estate Secretary
Securities Broker
Title Insurance Representative

Faculty

Full Time
Chris Grover

Degrees and Certificates Awarded

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

"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."

9.0 units

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

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0

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

BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 127	Real Estate Office Management	3.0
BRE 139	Real Estate Economics	3.0
BRE 140	Real Property Management	3.0
BESC 141	Escrow 1	3.0

BASIC BUSINESS REAL ESTATE CERTIFICATE

This Certificate program thoroughly prepares the student to become a professional real estate salesperson in the state of California.

18.0 units

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 126	Real Estate Finance	3.0
BRE 142	Real Estate Marketing	3.0

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

BRE 101	Real Estate Practices	3.0
BADM 103	Financial Accounting	3.0

ADVANCED BUSINESS REAL ESTATE CERTIFICATE

This Certificate program builds upon the "Basic" Certificate and thoroughly prepares the student who wishes to test for the real estate broker's license and go on to open and operate a professional real estate business.

27.0 units

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 126	Real Estate Finance	3.0
BRE 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

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.

21.0 units

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 140	Real Property Management	3.0
BADM 103	Financial Accounting	3.0
BADM 110	Business Management	3.0

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

BRE 101	Real Estate Practices	3.0
BRE 127	Real Estate Office Administration	3.0

REAL ESTATE APPRAISER CERTIFICATE

When completed, the Certificate program will give the student the basic skills and education necessary to become a real estate appraiser.

21.0 units

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 120	Real Estate Appraisal	3.0
BRE 121	Advanced Real Estate Appraisal: Income Property	3.0
BRE 125	Taxes and Real Estate Investment	3.0
BRE 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

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.

21.0 units minimum

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 101	Real Estate Practices	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BESC 141	Escrow I	3.0
BET 65	Speedwriting	3.0

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

BRE 127	Real Estate Office Administration	3.0
BET 104	Beginning Word Processing/Typing: Word for Windows A/B/C	3.0
BET 112	Spreadsheet: Excel for Windows A/B/C	3.0

REAL ESTATE MARKETING CERTIFICATE

This Certificate program prepares those interested in professionally marketing real estate by examining the elements which bring buyers and sellers together.

24.0 units

Group I - All of the following must be completed:

		Units
BRE 100	Real Estate Principles	3.0
BRE 126	Real Estate Finance	3.0
BRE 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 degree. Many Business Escrow and Business Real Estate courses transfer as Electives or fulfill subject credit requirements. Students in this program often choose to pursue a bachelor's degree in Business Administration. See Business Administration for transfer requirements.

CHEMISTRY

Chemistry is a central science. It is an integral part of biological, geological, medical and environmental sciences. Every sight, sound, touch, smell, taste, and even thought is a result of chemical processes. An understanding of chemistry helps to make sound decisions in our increasingly technological society.

Courses for non-majors are offered in addition to the rigorous sequence designed for majors and transfer students. For course descriptions, see Section IX of this catalog.

Career Opportunities

Agricultural Technician
Analytical Chemist
Biochemist
Synthetic Organic Chemist
Environmental Chemist and Attorney
Geochemist
Chemical Engineer
Materials Scientist
Pharmaceutical Technician
Laboratory Technician
Science Teacher
Technical Salesperson

Faculty

Full Time
Thomas Basiri
Thomas Kennedy

Degrees and Certificates Awarded

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

Certificate Program

No certificate awarded.

Associate Degree

No associate degree is offered with a major in Chemistry. Chemistry courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Chemistry courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. CHEM 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino Chemistry major

BA: CHEM 201, 202, MATH 226, H226, 227, H227

One group from the following: PHYS 221 + 222 or
PHYS 201, 202, 203, H204

One course from the following: BIOL 100, 201

Optional: CHEM 281+282

BS (ACS Certified Option): BIOL 201, CHEM 201, 202,
MATH 226 + 227, 228, PHYS 201, 202, 203, H204

Biochemistry major

BA: BIOL 201 + 202+ 203, CHEM 201, 202

MATH 226, H226, 227, H227

Optional: One group from the following: PHYS 221 + 222 or PHYS
201, 202, 203 + H204

BS: BIOL 201 + 202 + 203, CHEM 201, 202

MATH 226 + 227

One group from the following: PHYS 221 + 222

PHYS 201, 202, 203, H204

CSU General Education-Breadth Requirements

University of California, Riverside Chemistry major & Biochemistry major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

CHILD DEVELOPMENT

The Child Development program provides courses that prepare students to enter the field of early childhood education. Courses are designed to give students fundamental skills in working with children in a variety of settings, as well as a strong theoretical understanding of children's development. For course descriptions, see Section IX of this catalog.

Career Opportunities

Child Development Center Administrator
Child Development Center Teacher
Child Life Specialist
Early Childhood Education Specialist

Elementary School Teacher
Family Child Care Provider
Juvenile Worker
Nanny
Recreation Department Programs
Social Worker
Special Education
Therapist
Tutor

Faculty

Full Time

Mary Sypkens
Sandy Visser
Joanne Eccleston, Emeritus

Degrees and Certificates Awarded

Associate in Science, Child Development

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

Certificate of Achievements preparing students for different levels of entry into the field.

LEVEL I: ASSOCIATE TEACHER CERTIFICATE (PRE SCHOOL)

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.

22.0 units

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

		Units
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 NECESSARY 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. Student may submit the form "Course Substitution for Certificate Requirements" which can be obtained in the Admission and Records and Counseling Departments.

LEVEL II: TEACHER (PRE SCHOOL) CERTIFICATE OF ACHIEVEMENT

45.0 units

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	3.0

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 146)
- 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 in 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

60.0 units

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 for, 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, complete the following courses prior to transfer if possible:

California State University, San Bernardino

Human Development major

Child Development Track I (non-teaching emphasis):

BIOL 100, CHDV 110, 111, 150, and 160, PSYC 101, 110, SOC 101, Optional: Add MATH 120, CHDV 210

CSU General Education-Breadth Requirements

University of California, Riverside

Human Development major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC recommended

University of LaVerne, Victorville

Child Development major

(See **Table 6** in Section VII of this catalog.)

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. For course descriptions, see Section IX of this catalog.

Career Opportunities

Administrator
Advertising
Counselor
Lobbyist
Marketing Specialist
Ministry
News Anchor
Public Information Officer
Publicity Manager
Speech Writer
Teacher

Faculty

Full Time

Jacqueline Augustine-Carreira
Ed Heaberlin
Gregory Jones
Steven McDevitt
Theresa Mirci-Smith
John Rude
Polly Fitch, Emeritus

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Speech Communication. Speech courses may be used to fulfill Electives and general education requirements.

Transfer

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

California State University, San Bernardino

Communication major

Optional: JOUR 108

Human Communication Concentration

Once course from the following: CMST 106, 108

CSU General Education-Breadth Requirements

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

The Database Administration Certificate prepares the student with a foundation for database administration using the Oracle® database software.

18.0 units

All of the following must be completed:

		Units
CIS 105	Introduction to Systems Analysis	3.0
CIS 280	Fundamentals of Database Management Systems	3.0
CIS 281	Database Management	4.0
CIS 287A	Structured Query Language A (SQL A)	2.0
CIS 287B	Structured Query Language B (SQL B)	2.0
CIS 288A	Oracle® A	2.0
CIS 288B	Oracle® B	2.0

MYSQL DATABASE DEVELOPER CERTIFICATE

The MySQL Database Developer Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in developing production relational MySQL database applications. By being certified, clients, customer, and employers are ensured that the database developer is competent and professional.

11.0 units

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

		Units
CIS 91A	MySQL Administration A	2.0
CIS 91B	MySQL Administration B	2.0
CIS 96A	Structured Query Language A using MySQL	2.0
CIS 96B	Structured Query Language B using MySQL	2.0
CIS 280	Fundamentals of Database Management Systems	3.0

COMPUTER INFORMATION SYSTEMS

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

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

Career Opportunities

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

NETWARE CERTIFICATE

Provides the student with training in the popular network environment of Novell NetWare.

16.5 units

All of the following must be completed:

	Units
CIS 101 Computer Literacy	4.0
CIS 252 Novell NetWare 6 Advanced Administration	2.5
CIS 67 Fundamentals of Networking	2.5
CIS 72 Novell NetWare 6 Basic Administration	2.5
CIS 77 NetWare Service and Support	2.5
CIS 79 NDS Design and Implementation	2.5

NETWORK SPECIALIST CERTIFICATE

This certificate program prepares the student to begin a career in the computer networking field and working and administering a variety of popular network platforms including UNIX, Microsoft and Novell.

16.5 units

All of the following must be completed:

	Units
CIS 123 Introduction to Operating Systems: UNIX	3.0
CIS 124 Fundamentals of Data Communication	2.0
CIS 139 Windows XP For Power Users	
OR	
CIS 240A Windows 2000 Professional	4.0
CIS 240B Intro to Microsoft Windows 2000 Server Administration	4.0
OR	
CIS 72 Novell NetWare 6 Basic Administration	1.5
& CIS 252 Novell 6 Advanced Administration	2.0
OR	
CIS 261 UNIX System Administration A	2.0
CIS 262 UNIX System Administration B	2.0
CIS 50 Computer Ethics	2.0
CIS 67 Fundamentals of Networking	2.0

PROGRAMMING I CERTIFICATE

This certificate trains the student to become a programmer with some of the most popular programming such as C and Visual BASIC.

27.0 units

All of the following must be completed:

	Units
CIS 101 Computer Literacy	4.0
OR	
CIS 103 Foundations of Computer Technology	4.0
CIS 105 Introduction to Systems Analysis	3.0
CIS 201 C++ Module A	4.0
CIS 202 C++ Module B	4.0
CIS 210 Visual BASIC Programming	4.0
OR	
CIS 206A Java A	4.0
& CIS 206B Java B	
CIS 50 Computer Ethics	2.0
CIS 64 Computer Mathematics	3.0
ENGL 112 Technical Writing	3.0
OR	
BADM 144 Business Communications	3.0

PROGRAMMING II CERTIFICATE

Completion of this certificate makes the student well versed in most popular programming languages and ready for business and highly technical software development.

22.0 units

All of the following must be completed:

	Units
CIS 104 Object-oriented Software Design	3.0
CIS 108 Assembly Language Programming	3.0
CIS 203 C++ Module C	4.0
CIS 211A/B/C Advanced VB Programming A or B or C	4.0

OR		
CIS 206A Java A		4.0
OR		
CIS 206B Java B		
CIS 50 Computer Ethics		2.0
CIS 64 Computer Mathematics		3.0
ENGL 112 Technical Writing		3.0
OR		
BADM 144 Business Communications		3.0

PRODUCTIVITY SOFTWARE SPECIALIST CERTIFICATE

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

25.0 units

Group I - All of the following must be completed:

	Units
CIS 101 Computer Literacy	
OR	
CIS 103 Foundations of Computer Technology	4.0
CIS 280 Fundamentals of Database Management Systems	
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
ENGL 112 Technical Writing	3.0
OR	
BADM 144 Business Communications	

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

BET 103 Beginning Word Processing/Typing: A, B, C WordPerfect for Windows (3.0)	3.0
BET 104 Beginning Word Processing/Typing: A, B, C Word for Windows (3.0)	
BADM 106 Accounting on Microcomputers (3.0)	
BADM 107 Accounting on Microcomputers (3.0)	

UNIX ADMINISTRATOR CERTIFICATE

The UNIX Administrator Certificate is a high quality certification process that will provide evidence that a qualifying individual has skill in designing, implementing and maintaining UNIX and Linux based networks. By being certified, clients, customers, and employers are ensured that the UNIX administrator is well equipped to handle the day-to-day operations associated with a UNIX based network as well as the unforeseen problems that tend to arise in any network.

14.0 units

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

	Units
CIS 50 Computer Ethics	2.0
CIS 90 Introduction to UNIX Operating System	4.0
CIS 93 PERL	2.0
CIS 261 UNIX System Administration A	2.0
CIS 262 UNIX System Administration B	2.0

VISUAL BASIC PROGRAMMING CERTIFICATE

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

16.0 units

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

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

14.0 units

All of the following must be completed:

	Units
CIS 121 Introduction to Flash 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, complete the following courses prior to transfer if possible: (Note that an alternative to the CIS transfer major that appeals to many students is Administration, with an emphasis in CIS. See Business Administration.)

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

California State University, San Bernardino

Computer Science major

BS: CIS 201 + 202, MATH 226, H226, 227, H227

PHYS 201, 203, 202 + H204

One course from the following: BIOL 100, 201

One additional science course with lab from: BIOL, CHEM, GEOL, or PHYS

CSU General Education-Breadth Requirements

Computer Systems Major

BA: CIS 201, 202, MATH 226, H226

California State University, San Bernardino

Computer Engineering major

BS: CHEM 201, CIS 201 + 202, ECON 102, MATH 226, 227, 228,

PHYS 201, 202, 203 + H204

University of California, Riverside

Computer Science major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Engineering.

Computer Engineering

CHEM 201, CIS 201, 202

ECON 102

MATH 226, H226, 227, H227, 228, H228, 231

PHYS 201, 203, 202, H204

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 Computer Animation program is designed for both beginning and advanced students. Three different certificates are currently offered, with each tailored to prepare a student for entry-level opportunities in the Animation industry. The program is geared toward individuals interested in creating video games, broadcast commercials, product visualizations, animated logos, 3D website graphics, and film-based special effects. The primary software package used in all CIDG Computer Animation classes is 3ds Max. Animation courses are also offered through the Media Arts Department.

The cornerstone of the department remains our Computer Aided Drafting & Design (CADD) program. There are five new certificates that have been designed to meet the needs of students new to the field of CADD and those experienced professionals looking to upgrade their software knowledge. A core certificate is offered for students with a limited knowledge of drafting, mathematics and blueprint reading. (Drafting Technician I) Two entry-level certificates are offered in the areas of CADD and Computer Animation. We have also included three specialized certificates in the areas of Architectural CADD, Geographic Information Systems (GIS) and Civil CADD.

Career Opportunities

Architect

Architectural Drafter

CAD Management

CAD Operator

Cabinet Shop Detailer

Civil Drafter

Computer Animator

Community College Instructor

Construction Technician

Desk-Top Publisher

Electrical Drafter

Electronics Drafter

GIS Technician

Graphics Designer

Interior Designer

Landscape Architect

Landscape Designer

Mapping Specialist

Mechanical Drafter

Public Works Technician

Rendering Specialist

Steel Fabricator Drafter

Structural Drafter

Technical Illustrator

Faculty

Full Time

Claude Oliver

Shuron Taylor

Gary Menser

Steve Nelle

Degrees and Certificates Awarded

Associate in Science, CIDG

Drafting Technician I Certificate

CADD I Technician

Architectural CADD Technician I Certificate

Civil CADD Technician I Certificate

Digital Animation Artist Certificate

Digital Animation Technician I Certificate - 3ds Max

Geographic Information Systems (GIS) Certificate

Visual Communications Graphic Design Certificate

Visual Communications Print Production Certificate

Certificate Programs

DRAFTING TECHNICIAN I CERTIFICATE

12.0 units

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

Group I -

Units		
CIDG 101	Introduction to Drafting	3.0
CIDG 103	Blueprint Reading for Construction	3.0
CIDG 104	Blueprint Reading for Industry	3.0
CT 105	Technical Sketching	3.0

Group II -

CT 107	Technical Mathematics	3.0
CT 108	Advanced Technical Math	3.0
MATH 90	Intermediate Algebra	4.0
MATH 104	Trigonometry	3.0

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

9.0 units

All of the following must be completed:

Units		
CIDG 103	Blueprint Reading for Construction	3.0
CIDG 250	Architectural Computer Aided Design I	3.0
CIDG 251	Architectural Computer Aided Design II	3.0

CADD (COMPUTER AIDED DESIGN AND DRAFTING) TECHNICIAN I CERTIFICATE

9.0 units

All of the following must be completed:

Units		
CIDG 110	Two Dimensional AutoCAD	3.0
CIDG 210	Advanced Two Dimensional AutoCAD	3.0
CIDG 120	Solids Modeling and Three Dimensional CADD	3.0

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

9.0 units

All of the following must be completed:

Units		
CIDG 230	Computer Aided Mapping I	3.0
CIDG 231	Computer Aided Mapping II	3.0
CIDG 280	Geographical Information System I (GIS)	3.0
OR		
AGNR 171	Introduction to Geographic Information Science	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

The Digital Animation Artist certificate is designed to expand an individual's knowledge in Animation, giving them the traditional art principles and practices that will help them become a well-rounded animator. Employers often prefer computer animators who have the ability to draw and understand traditional art concepts and principles. By earning the Digital Animation Artist certificate, graduates will better position themselves of traditional art courses that include drawing and composition, life drawing and sculpture. An additional course specific to learning Adobe Photoshop is also required to earn certification.

15.0 units

Group I - Animation Track

Choose between software package options 1 or 2

All of the following must be completed with a grade of "C" or better.

Option 1: 3ds Max Units		
CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0
MERT 56	Photoshop for Animators	3.0

Option 2: SoftImage XSI		
MERT 50	Principles of Animation	3.0
MERT 51	Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52	Digital Character Animation	3.0
MERT 56	Photoshop for Animators	3.0

Group II - Art Track

Choose any ONE of the following courses.

Each course must be completed with a grade of "C" or better.

Units		
ART 101	Survey of Art History	3.0
ART 104	Film as an Art Form	3.0
ART 112	Design I	3.0
ART 113	Design II	3.0
ART 122	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

DIGITAL ANIMATION TECHNICIAN I 3ds Max CERTIFICATE

The 3ds Max 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.

9.0 units

All of the following must be completed with a grade of "C" or better.

Units		
CIDG 160	3ds Max Fundamentals	3.0
CIDG 260	3ds Max Advanced Modeling and Materials	3.0
CIDG 261	3ds Max Character Animation and Advanced Keyframing Techniques	3.0

GEOGRAPHICAL INFORMATION SYSTEMS CERTIFICATE

This certificate was recommended by the Computer Integrated Design and Graphics Advisory Committee to prepare the student for specialized employment in the vast fields of Geographic Information Systems. The curriculum is structured to provide the student with foundation skills to branch into many industry disciplines, i.e. mapping, utilities, forensics, government, geography, real estate to name a few.

9.0 units

All of the following must be completed:

Units		
AGNR 171	Introduction to GIS	3.0
CIDG 280	GIS I	3.0
CIDG 281	GIS II	3.0

VISUAL COMMUNICATIONS CERTIFICATE - GRAPHIC DESIGN

17.0 units

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

Units		
CIDG 70	Design for Graphic Artists	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 72	Computer Illustration	3.0
CIDG 73	Typography and Layout	3.0
CIDG 79	Multimedia and Web Design	4.0

VISUAL COMMUNICATIONS CERTIFICATE - PRINT PRODUCTION

16.0 units

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

Units		
CIDG 70	Design for Graphic Artists	3.0
CIDG 77	Print Production Processes	3.0
CIDG 73	Typography and Layout	3.0
CIDG 71	Survey of Computer Graphic Studio	4.0
CIDG 75	Page Layout and Design	3.0

Associate Degree

To earn an Associate in Science degree with a major in CIDG, you must complete a minimum of 18 units from any of the certificate requirements above or from any CIDG courses, and meet all Victor Valley College graduation requirements. CIDG 138 may be used as Elective credit but may not be used to fulfill major requirements.

Transfer

Not a transfer major. Most CIDG courses transfer as Electives or fulfill subject credit requirements. Some CIDG courses fulfill lower division requirements for a related major. Students in this program sometimes choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

CONSTRUCTION AND MANUFACTURING TECHNOLOGY

The Construction Technology program provides preparation for a wide variety of positions in the construction field as a contractor, supervisor, building inspector or tradesperson. The program offers the opportunity to be self-employed and the pride and satisfaction of creating and building with your own hands.

Certificates of achievement can be earned in Construction Management, Building Construction, Building Inspection, Public Works, HVAC/R, Plumbing and Electrical & Residential Maintenance. The Associate in Science degree is awarded upon completion of 18 semester units in Construction Technology courses and the required general education and Elective courses. Transfer to the CSU system for a bachelor's degree in Industrial Technology is available. For course descriptions, see Section IX of this catalog.

Career Opportunities

Building Inspector
Cabinetmaker
Construction Accountant
Construction Estimator
Construction Insurance Agent
Construction Law Specialist
Construction Salesperson
Construction Supervisor
Contractor
Cement Mason
Civil Engineer

Electrician
Environmental Construction Specialist
Financial Specialist
Framer
Grader
Hazardous Materials Specialist
Heating and Air Conditioning Engineer
Job Foreman
Materials Engineer
Millwright
Metal Building Specialist
Painter
Plumber
Plasterer
Project Supervisor
Public Works Technician
Purchasing Agent
Safety Specialist
Soils Engineer
Surveyor
Tinsmith
Waste Water Specialist
Water Distribution System Specialist
Workmans Comp Specialist

Faculty

Full Time

Nord Embroden

Degrees and Certificates Awarded

Associate in Science, Construction Technology,
Construction Management Certificate
Construction Technology Certificate
Basic Electrical Technician
Basic Heating, Ventilation and Air Conditioning/
Refrigeration Certificate
Basic Residential Maintenance Technician Certificate
Basic Woodworking Certificate
Building Construction Certificate
Building Inspector Certificate
Plumbing Technician
Public Works Certificate
Renewable Energy Certificate

Certificate Programs

CONSTRUCTION TECHNOLOGY CERTIFICATE

Provides the core knowledge and skills that are common and fundamental to success in a wide variety of construction trades.

19.5 units

All of the following must be completed:

		Units
CT 101	Careers in Construction and Manufacturing	1.5
CT 105	Technical Sketching	3.0
CT 106	Materials of Construction	3.0
CT 107	Technical Math	3.0
CT 108	Advanced Technical Math	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	4.0
CIDG 103	Blueprint Reading for Construction	3.0

BUILDING CONSTRUCTION CERTIFICATE

Provides the basic knowledge and skills necessary for job opportunities in a wide variety of specific construction trades including masonry, finish carpentry, framing, construction sales, drywall, painting, plumbing, electrical, roofing, heating, ventilation and air conditioning, and surveying.

Students must complete their Construction Technology Certificate plus all of the following:

		18.0 units
<i>Group I - All of the following must be completed:</i>		
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

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:

		21.0 units
<i>All of the following must be completed:</i>		
Units		
CT 110	Building Codes and Zoning	3.0
CT 111A	Uniform Building Code 1	3.0
CT 111B	Uniform Building Code 2	3.0
CT 112	Uniform Mechanical Code	3.0
CT 113	Uniform Plumbing Code	3.0
CT 114	National Electrical Code	3.0
CT 115	Technical Office Procedures and Field Inspection	3.0

CONSTRUCTION MANAGEMENT CERTIFICATE

Provides the skills and background necessary for employment as a contractor, construction business manager, construction supervisor, or foreman when linked with appropriate, trade-specific knowledge.

Students must complete their Construction Technology Certificate plus all of the following:

		18.0 units
<i>All of the following must be completed:</i>		
Units		
CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 109	Construction Financing	3.0
CT 110	Building Codes and Zoning	3.0
CT 132	Construction Estimation	3.0
BADM 101	Elementary Accounting	4.0
OR		
BADM 103	Financial Accounting	3.0

BASIC ELECTRICAL TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the electrical industry.

16.0 units

All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 114	National Electrical Code	3.0
CT 116	Construction Safety	2.0
CT 120A	Electrical Wiring	4.0
CT 120B	Commercial Wiring	4.0

BASIC HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION (HVAC/R) SERVICE TECHNICIAN CERTIFICATE

This certificate provides the basic knowledge and skills necessary for job opportunities in heating, ventilation and air conditioning.

17.0 units

All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 116	Construction Safety	2.0
CT 122A	Heating and Air Conditioning	4.0
CT 122B	Commercial Refrigeration	4.0
CT 136	HVAC Circuits and Controls	4.0

PLUMBING TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the plumbing industry.

15.0 units

All of the following must be completed:

		Units
CT 107	Technical Math	3.0
OR		
CT 108	Advanced Technical Math	3.0
AND		
CT 113	Plumbing Code	3.0
CT 116	Construction Safety	3.0
CT 124	Plumbing	4.0
CTMT 121	Plumbing Repair	3.0

PUBLIC WORKS CERTIFICATE

This certificate provides the necessary skill level for employment on public works projects. Public works includes construction of streets and highways, water distribution systems, and waste water systems.

Students must complete their Construction Technology Certificate plus all of the following:

18.0 units

Group I - All of the following must be completed:

		Units
CTPB 111	Introduction to Public Works	3.0
CTPB 112	Plan Reading for Public Works	3.0
CTPB 113	Public Works Inspection	3.0
CTPB 114	Public Works Administration	3.0

Group II - Two of the following must be completed:

CT 23	Surveying	4.0
CTPB 115	Street and Highway Construction	3.0
CTPB 116A	Water Distribution Systems	3.0
CTPB 117	Portland Cement Concrete	3.0
CTPB 118	Solid Waste Management	3.0
CTPB 119	Wastewater Management	3.0

BASIC RESIDENTIAL MAINTENANCE TECHNICIAN CERTIFICATE

This certificate provides the necessary knowledge and skill level required for employment in the residential maintenance and repair industry.

15.0 units

All of the following must be completed:

		Units
CT 107	Technical Math	3.0
	OR	
CT 108	Advanced Technical Math	3.0
	AND	
CT 116	Construction Safety	2.0
CTMT 120	Residential Maintenance and Repair	4.0
CTMT 121	Plumbing Repair	3.0
CTMT 122	Electrical Repair	3.0

BASIC WOODWORKING CERTIFICATE

This certificate demonstrates a basic understanding of wood, joinery and woodworking skills and the ability to safely and appropriately use common hand tools, power tools and equipment to perform common woodworking tasks. This certificate can lead to employment in a wide variety of woodworking trades.

17.0 units

All of the following must be completed:

		Units
CTMF 120A	Woodworking Tools and Equipment	2.0
CTMF 121A	Woodworking	3.0
CTMF 121B	Advanced Woodworking	3.0
CTMF 122	Advanced Wood Topics	3.0
CTMF 129A	Woodturning	3.0
CTMF 129B	Advanced Woodturning	3.0

RENEWABLE ENERGY CERTIFICATE

This certificate demonstrates an understanding of renewable generation and the effects of fossil fuel use on our environment, economy and society. This certificate can lead to employment in the renewable energy field.

17.0 units

Group I - All of the following must be completed:

		Units
CT 105	Technical Sketching	3.0
CT 107	Technical Math	3.0
	OR	
CT 108	Advanced Technical Math	3.0
CT 142	Renewable Energy	3.0
CT 143	Renewable Energy Laboratory	5.0
CTMT 122	Electrical Repair	3.0

Associate Degree

To earn an Associate in Science degree with a major in Construction Technology a minimum of 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:

		Units
CT 101	Careers in Construction	1.5
CT 103	Construction Management	3.0
CT 104	Construction Law	3.0
CT 106	Materials of Construction	3.0
CT 110	Building Codes and Zoning	3.0
CT 116	Construction Safety	2.0
CT 131	Microcomputers in Construction	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

Transfers to CSU system for bachelor's degree in Industrial Technology. Some Construction Technology courses transfer as Electives or fulfill subject credit requirements. Some students in this program choose to pursue a bachelor's degree in Architecture or Engineering. See Architecture and Engineering for transfer requirements for these majors.

CSU Stanislaus, located in the Central Valley not far from the San Francisco Bay area, offers a B.S. degree in Applied Studies (telephone: 209 667-3597), to which up to 30 units of VVC's Construction and Manufacturing Technology courses can be applied. Prerequisites: BADM 101, CIS 101, ECON 102, and MATH 120, plus complete the remaining CSU General Education-Breadth requirements (you can use ECON 102 and MATH 120 for both).

COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Education is a key element of Victor Valley College's comprehensive approach to career development. Co-op is 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 education training laboratory. Co-op also allows credit for volunteer training. Credit is awarded on the basis of objectives completed and the number of hours the student trains. Students may utilize their present worksites. More details are available in the Co-op Office, (760) 245-4271, ext. 2281. The office is open Monday-Friday, 8:30 a.m.-12 noon, 1:00-5:00 p.m., and by appointment.

Co-op is a course designed for students who are cross-training at their current worksite for upward mobility or possible career changes as well as those looking for entry-level occupational training through work-based learning experiences.

Are **you** looking for occupational skills training for employment? We can offer you:

- Practical experience
- An opportunity to apply classroom learning on the job
- College credit
- Career guidance in a realistic setting
- A chance to learn what you do well and what you enjoy doing
- A reason for staying in college
- Job contacts
- Up-to-date laboratory experience
- Orientation to changing job conditions
- New ways of getting ahead
- Opportunity to experience socialization in the work place
- Transferable college units

Credit is awarded on the basis of objectives completed and the number of hours worked. The student needs a minimum of 75 hours of paid work for each unit of credit or 60 hours of volunteer work for each unit of credit.

75 Hours per unit/per semester

Paid		Total Semester Hours
5 hrs/wk	1.0 unit	75
10 hrs/wk	2.0 units	150
15 hrs/wk	3.0 units	225
20 hrs/wk	4.0 units	300
40 hrs/wk	8.0 units	600

60 Hours per unit/per semester

Volunteer		Total Semester Hours
4 hrs/wk	1.0 unit	60
8 hrs/wk	2.0 units	120
12 hrs/wk	3.0 units	180
16 hrs/wk	4.0 units	240
32 hrs/wk	8.0 units	480

Students may utilize their present work sites.

Occupational Cooperative Work Experience Education (1-8 units per semester)

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

General Cooperative Work Experience Education (1-6 units per semester)

Students do not need a declared major and do not need to be working in a major to enroll in Coop General Work Experience.

Eligibility

To be eligible for Cooperative Education, students must:

- Be enrolled as a Victor Valley Community College student.
- Spend at least five (5) hours a week at a 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.

Transfer Credit

Up to 16 units may be used as elective credit for the AA/AS degree.

Cooperative Education Work Experience is offered in the following areas:

Administration of Justice
Agriculture and Natural Resources
Allied Health
Art
Automotive
Biology
Business Administration
Business Education Technologies
Business Escrow
Business Real Estate
Chemistry
Child Development
Computer Information Systems
Computer Integrated Design & Graphics (Drafting)
Construction & Manufacturing Technology
Education
Electronics and Computer Technology

English
Fire Technology
General Work Experience
Journalism
Mathematics
Music
Nursing
Photography
Physical Science
Physics
Political Science
Psychology
Respiratory Therapy
Restaurant Management
Sociology
Theater Arts
Welding

NOTE: To enroll in Cooperative Work Experience Education, you do not have to declare a major.

For further information and individual guidance, contact the Cooperative Education Office at 245-4271, ext. 2281.

Faculty

Full Time

Maggi Dunsmore

DEVELOPMENTAL STUDIES

Developmental Studies courses offer language analysis curriculum specifically designed for students with language based disabilities. The curriculum is a multisensory, sequential, and cognitive approach which includes both perceptual and neurological deficit therapy. For course descriptions, see Section IX of this catalog.

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, unemployment, wage, tax, and tariff policies. Others collect, analyze, and interpret data on a wide variety of economic problems, develop theories to explain causes of these problems, and identify possible solutions.

Economics provides both a general academic experience and professional preparation. The program emphasizes economic analysis, institutions, and policy in America, regional, and urban settings. Economics is designed to facilitate the students' matriculation to the four-year college or to provide an understanding of the economic world in which we live. Key concepts and methodology for analysis are emphasized. For course descriptions, see Section IX of this catalog.

Career Opportunities

Budget Analyst
Business Analyst
Business Forecaster
Commodity Economist
Commodity Price Forecaster
Economic Analyst
Economic Forecaster
Economist
Industrial Relations Specialist
Investment Analyst

Faculty

Peter Allan
Henry Young

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program No certificates awarded.

Associate Degree

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

Transfer

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

California State University, San Bernardino Economics major

ECON 101, 102, MATH 104, 105 or H105, 120, H120
Social Science Teaching Credential Option:
All above courses
Add: ANTH 102, GEOG 101 + 101L, 102,
HIST 103 + 104, 117, H117, 118 or H118, POLS 102 or H102, PSYC
101, SOC 101, GEOG 102.
CSU General Education-Breadth Requirements

University of California, Riverside Economics major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

EDUCATION

The Department of Education and Educational Technology at Victor Valley College offers certificate programs for transfer into teaching credential programs offered at accredited four-year colleges. These preparatory courses may transfer to Education and Educational Technology majors when and where articulation agreements exist. Education is the career field for those individuals who desire to teach in elementary and secondary schools, as well as in colleges and professional education. This field of study prepares students to participate as teachers and learning facilitators. Graduates in this field—bachelors degree and postgraduate study required—qualify for a variety of positions including teaching at the elementary, secondary, and college levels. Education remains on the national list of growing occupations.

To obtain a California teaching credential, students must follow a five-year program by first pursuing a four-year bachelor's degree and then completing a fifth year teaching credential program in which they complete mostly education courses, including student teaching.

CBEST

Students will usually student teach during the last two quarters of their credential program. Before student teaching, all students must take the California Basic Educational Skills Test (CBEST). Most students take the CBEST during their junior year, a quarter or two after transfer to a university.

Credentials

California Commission on Teacher Credentialing is responsible for setting standards for licensure of teachers and for accreditation of institutions that prepare teachers. The Commission is working toward meeting the standards set by the Senate Bill 2042. Some institutions may still be in the process of making changes to comply with the Commission's new standards. If you are thinking of a career in teaching, you should see a counselor for the latest information.

Waiver Programs

No waiver programs for Multiple Subject teaching programs will be available. Multiple Subject candidates will be required to pass the CSET exam.

Multiple Subject Programs

California State University, San Bernardino:
Liberal Studies, Human Development/Child Development Track II

Multiple Subject Programs

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

Single Subject Waiver Programs

Middle school and high school teacher candidates must possess a bachelor's degree in the subject they plan to teach or possess a bachelor's degree in any subject and pass the CSET subject matter test in the subject they plan to teach.

Single Subject Programs

California State University, San Bernardino:
Art, English, English with a concentration in Communication Studies, English with a concentration in Theatre Arts, French, Health Sciences, History, Mathematics, Music, Physical Education, Political Science, Social Sciences, Spanish, any of the sciences

Single Subject Programs

University of California, Riverside
Biological Sciences, English, History, Mathematics, Political Science, Physical Sciences (Physics), Social Sciences

Educational Specialist Credential

New Legislation upcoming.

Because credential programs are subject to change, students should meet with a counselor periodically to obtain the most up-to-date information. A minimum 2.6-3.0 GPA is required for acceptance into a credential program. Minimum GPA accepted varies according to the major and the university the student chooses.

Career Opportunities

Administrative Services
Elementary Teacher
ESL Teacher
High School Teacher
College Instructor
Education Consultant
Training Facilitator
Instructional Designer
Distance Learning Specialist
MGM Teacher
Physically Handicapped Teacher
Pupil Personnel Services
Reading Teacher
Special Education Teacher
Vocational Teacher

Faculty

Mike Smith

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts
Degree will vary with major.
Educational Technology Certificate
Collegial Education Certificate Level I, II

Certificate Program

EDUCATIONAL TECHNOLOGY CERTIFICATE

The Educational Technology Certificate Program significantly enhances transfer readiness for students who intend to pursue a career in public education (K-12 teacher, community college teacher, school administration, academic counseling, special education, etc.) or a career in professional education (instructional designer, business/corporate trainer, educational software engineer, educational consultant.) Additionally, the program (1) certifies teachers of all types in the use and integration of computer technology in their practice, and (2) certifies students for work as 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.

17.0 units

All of the following must be completed:

	Units
EDUC 101 Introduction to Teaching	3.0
OR	
EDUC 52 Educating Today's Learner	3.0
ETEC 106 Introduction to Computer Technology for Educators	4.0
ETEC 107 Introduction to the Internet for Educators	2.0
ETEC 51 Introduction to Educational Technology	3.0
ETEC 70 Leadership in Educational Technology	3.0
ETEC 90 Educational Technology Internship	2.0

COLLEGIAL EDUCATION CERTIFICATE

This certificate will serve the needs of parents who home school their children or are actively involved in the education of their children at school. It is intended to assist parents developing their understanding of how children think and learn, and how different educational styles and approaches influences learning. The certificate will initially be offered to parents of students at the Lewis Center in Apple Valley and has been developed in collaboration with the administration of the Lewis Center.

COLLEGIAL EDUCATION - LEVEL I

8.0 units minimum

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

	Units
EDUC 101 Introduction to Teaching	3.0
EDUC 50 Tutoring Principles and Practices	2.0
CHDV 100 Child Growth and Development	3.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II CURRICULUM SPECIALIZATION

6.0 units

Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

	Units
CHDV 134 Language Experiences for Young Children	3.0
CHDV 144 Math and Science for Young Children	2.0
ENGL 235 Children's Literature	3.0
MATH 70 Building Mathematical Experiences for Children K-8	3.0
MATH 71 Guided Discoveries Practicum	2.0

COLLEGIAL EDUCATION CERTIFICATE - LEVEL II TEACHING AND LEARNING SPECIALIZATION

6.0 units

Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

	Units
CHDV 132 Montessori Methods	3.0
EDUC 52 Educating Today's Learner	3.0
GUID 107 Learning Strategies and Study Skills	3.0
PSYC 105 Personal and Career Success	3.0

COLLEGIAL EDUCATION - LEVEL II: TECHNOLOGY SPECIALIZATION

6.0 units

Students must first complete the Collegial Education Certificate - Level 1. Choose 6 units from any of the following:

	Units
ETEC 106 Introduction to Computing for Educators	4.0
ETEC 107 Introduction to the Internet for Educators	2.0
ETEC 51 Introduction to Educational Technology	3.0
BET 112 Building Mathematical Experiences for Children K-8	3.0
BET 131A Presentation Software: PowerPoint I	1.0
BET 131B Presentation Software: PowerPoint II	1.0
BET 131C Presentation Software: PowerPoint III	1.0
BET 135 Desktop Publishing: PageMaker	2.0

Associate Degree

No associate degree offered with a major in Education. Courses in the Liberal Studies major may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

To pursue a bachelor's degree which prepares the student for elementary (K-6) teaching, complete the following courses prior to transfer if possible:

MULTIPLE-SUBJECT TEACHING CREDENTIAL

- California State University, San Bernardino**
Liberal Studies major
 (See **Table 1** in Section VII of this catalog.)

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

- University of California, Riverside**
Liberal Studies major
Multiple Subject Teaching Credential for Elementary Teaching

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. Completion of IGETC recommended.

- Azusa Pacific University, Victorville**
Human Development major (CSET Waiver)
 (See **Table 3** in Section VII of this catalog.)

- University of La Verne**
Liberal Studies major
 (See **Table 7** in Section VII of this catalog.)

SINGLE SUBJECT TEACHING CREDENTIAL

Students pursuing a Single Subject Teaching Credential to teach a specific subject in Grades 7-12 should follow the bachelor's degree major requirements for that specific subject waiver program and complete the appropriate general education requirements. For example, a student who plans to teach English in high school should complete the transfer requirements for an English major or an English waiver and all general education transfer requirements for the specific university.

VOCATIONAL SUBJECTS

The following California State Universities (CSU) offer Vocational Ed./Occupational Studies as a Bachelor's Degree. Contact individual CSU campuses for admission requirements:

California State University	
Long Beach	San Diego
Los Angeles	San Francisco
San Bernardino	San Luis Obispo

ELECTRONICS AND COMPUTER TECHNOLOGY

The Electronics and Computer Technology Department offers several concentrations in electronics and computer technology that are designed to prepare students for a variety of high-tech job/career opportunities in the fields of engineering and technology; electronics technology; computer technology; telecommunication technology; and related technologies.

The Electronics and Computer Technology Department offers an associate degree program in engineering technology with an emphasis in electronics, computers, and telecommunications. Technology certificates offered in areas of specialization include: electronics technology, computer technology, telecommunication technology, networking technology, electronic communication technology, 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

64.5-68.5 units

All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 51	C++ Programming for Electronics and Computer Technology	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

One of the following two groups must be completed:

Electronics Emphasis

ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0

Computer Emphasis

ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 77A	Networking Technology and Practices I	4.0

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

All of the following must be completed:

		Units
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 59	Technical Calculus for Electronics I	3.0
ELCT 60	Technical Calculus for Electronics II	3.0

Students planning to transfer to an Electrical engineering program should take the following mathematics courses (instead of ELCT 57, 58, 59, and 60)

MATH 105	College Algebra	4.0
MATH 104	Trigonometry	3.0
MATH 226	Analytic Geometry and Calculus	5.0
MATH 227	Analytic Geometry and Calculus	5.0

One of the following must be completed:

Any course that will satisfy the VVC Social Science requirement* 3.0

One of the following must be completed:

Any course that will satisfy the VVC Humanities requirement* 3.0

6 units from the following must be completed:

Any courses that will satisfy the VVC Language Skills requirement* 6.0

One of the following must be completed:

Any course that will satisfy the VVC Physical Education requirement* 1.0

*See pages 48-49 for a listing of courses that can satisfy the various GE requirements listed here.

COMPUTER TECHNOLOGY CERTIFICATE

Career Preparation

36.0 units

All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 50	A+ Operating Systems Technologies	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 61	Basic Maintenance of Personal Computers	4.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units

Career specialty options include individualized instruction courses that are designed to provide the student with skills and/or knowledge in a specific area of digital/microprocessor technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty course requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:

Option 1: Microprocessor Systems

ELCT 91	Microprocessor Interfacing	3.0
ELCT 92	Microprocessor Applications	3.0

Option 2: Computer Systems

ELCT 62	PC Servicing	3.0
ELCT 63	PC Troubleshooting	3.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL I

17.0 units

All of the following must be completed:

		Units
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	CISCO Networking Academy I	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL II

17.0 units

All of the following must be completed:

		Units
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	CISCO Networking Academy II	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL III

17.0 units

All of the following must be completed:

		Units
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	CISCO Networking Academy III	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL IV

17.0 units

All of the following must be completed:

		Units
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	CISCO Networking Academy IV	4.0

CISCO NETWORKING ACADEMY CERTIFICATE LEVEL V

17.0 units

All of the following must be completed:

		Units
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	CISCO Networking Academy V	4.0

**CISCO NETWORKING ACADEMY
CERTIFICATE LEVEL VI****17.0 units***All of the following must be completed:*

	Units	
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	CISCO Networking Academy VI	4.0

**CISCO NETWORKING ACADEMY
CERTIFICATE LEVEL VII****17.0 units***All of the following must be completed:*

	Units	
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	CISCO Networking Academy VII	4.0

DIGITAL ELECTRONICS CERTIFICATE**30.0 units***All of the following must be completed:*

	Units	
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

ELECTRONICS TECHNOLOGY CERTIFICATE**Career Preparation****36.0 units***All of the following must be completed:*

	Units	
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

Career Option - 6 Units

Career specialty options are individualized instruction courses and are designed to provide the student with skills and/or knowledge in a specific area of Electronics technology. Supervised time will be spent with computers, audiovisual material, and laboratory equipment to meet specific objectives. Each specialty option requires 108 hours to complete, or an average of 6 hours per week.

One of the following career options must be completed:

	Units	
Option 1: Optoelectronics		
ELCT 85	Fiber Optics	3.0
ELCT 86	Lasers	3.0
Option 2: Telecommunications		
ELCT 97	Digital Communications	3.0
ELCT 99	Microwave Communications	3.0

Option 3: Television and Video Systems

ELCT 93	TV Servicing	3.0
ELCT 94	VCR/Camcorder Servicing	3.0

Option 4: Industrial Electronics

ELCT 87	Industrial Control Systems	3.0
ELCT 88	Industrial Process Control Applications	3.0

Option 5: Biomedical Electronics

ELCT 89	Biomedical Instrumentation	3.0
ELCT 90	Advanced Biomedical Instrumentation	3.0

**MICROSOFT CERTIFIED SYSTEMS
ENGINEER (MCSE) EXAMINATION
PREPARATION CERTIFICATE LEVEL I****14.0 units***All of the following must be completed:*

	Units	
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****14.0 units***All of the following must be completed:*

	Units	
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**16.0 units***All of the following must be completed:*

	Units	
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 69	Network Topologies and Cabling	2.0

FIBER OPTIC CABLING TECHNICIAN CERTIFICATE**17.0 units***All of the following must be completed:*

	Units	
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 80	Fiber Optics Cabling	3.0

**A+ CERTIFICATION EXAMINATION
PREPARATION CERTIFICATE****15.0 units***All of the following must be completed:*

	Units	
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**

17.0 units

All of the following must be completed:

		Units
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**

38.0 units

All of the following must be completed:

		Units
ELCT 131	DC Circuit Theory and Analysis	4.0
ELCT 132	AC Circuit Theory and Analysis	4.0
ELCT 133	Solid State Devices and Circuits	4.0
ELCT 134	Solid State Circuit Analysis	4.0
ELCT 53	Electronic Communication Principles	4.0
ELCT 54	Electronic Communication Systems	4.0
ELCT 57	Technical Mathematics for Electronics I	3.0
ELCT 58	Technical Mathematics for Electronics II	3.0
ELCT 71	Principles of Digital Logic and Circuits	4.0
ELCT 73	Microprocessor Principles	4.0

**SPECIAL PROGRAMS
FEDERAL COMMUNICATIONS
COMMISSION (FCC) COMMERCIAL RADIO
OPERATOR LICENSE**

FCC licenses are required by law to operate and maintain many types of communications equipment. The broadcasting, avionics, and maritime industries are the primary employers of commercial license holders. Many other fields now require FCC licenses. New technologies are evolving which must have qualified technicians and operators to comply with the procedures and rules needed to bring order to the international communications maze.

Under the auspices of the Electronics Technician Association and the International (ETA), FCC license examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following FCC commercial licenses and endorsements are obtained by successfully passing a series of examinations:

- General Radiotelephone
(Examination elements 1 and 3)
- Radar Endorsement (Element 8)
- GMDSS', Radio Operator (Elements 1 and 7)
- GMDSS', Radio Maintainer (Elements 1, 3, and 9)

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

An FCC license preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College Catalog).

Note: (1) Global Maritime Distress and Safety System

**CERTIFIED ELECTRONICS TECHNICIAN (CET)
CERTIFICATION**

CET examinations thoroughly assess an individual's (a) general knowledge of electronics and computer technology, and (b) specific knowledge in fourteen separate specialty areas. Upon successful

completion of the selected examination, the technician is registered and receives the CET certificate from the Electronics Technician Association, International. This certificate identifies the technician as having attained a high level of competence in the profession.

Under the auspices of the Electronics Technician Association, International (ETA), CET examinations are administered at the Electronics and Computer Technology Department by an official ETA examiner. An examination fee is required.

The following Electronic Technician Certifications and endorsements are obtained by successfully passing a series of examinations:

Associate: For students and entry level technicians with less than four years of experience. This examination pertains to basic Electronics and computer technology.

Journeyman: For technicians with four or more years of combined education and experience. This examination consists of the associate examination plus one of the following options:

- Telecommunications Electronics Technician - TCM
- Certified Network Systems Technician - CNST
- Certified Web Specialist - CSW
- Registered Small-Dish Installer - RSDI
- Certified Satellite Installer - CSI
- Certified Fiber Optics Installer Technician - FOIC
- Wireless Communications Electronics Technician - WCM
- Radar Electronics Technician - RAD
- Biomedical Electronics Technician - CMP
- Certified Computer Electronics Technician - CMP
- Consumer Electronics Technician - CSM
- Video Electronics Technician - VID
- Certified Industrial Electronics Technician - IND
- Certified Network Computer Technician - CNCT

Examination schedules can be obtained by contacting the Electronics and Computer Technology Department.

A CET certification preparation course also is offered (see course offerings in the Electronics and Computer Technology Department in the Victor Valley College catalog).

Associate Degree

To earn an Associate in Science degree with a major in Electronics and Computer Technology, complete a minimum of 18 units from any of the certificate requirements above or from any Electronics and Computer Technology courses and meet all Victor Valley College graduation requirements. The Associate Degree Electronic Engineering Technology Certificate includes all general education requirements for an Associate in Science degree with a major in Electronic Engineering Technology. ELCT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Most Electronics and Computer Technology courses transfer as Electives or fulfill subject credit requirements. Students in this program sometimes choose to pursue a bachelor's degree in technology fields such as Industrial Technology at California State Polytechnic University, San Luis Obispo or Engineering Technology at California State Polytechnic University, Pomona. Other students choose to pursue an Engineering degree which requires a more intense curriculum in mathematics, chemistry, and physics. See Engineering for transfer requirements.

Campuses that offer Electronics and Computer Technology majors include: CSU - Chico, Fullerton, Long Beach, Pomona and Sacramento.

Refer to ASSIST, at www.assist.org for major preparation requirements.

EMERGENCY MEDICAL TECHNICIAN

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

EMT 1A can be completed in one class. Classes in this area meet California State EMS authority and ICEMA regulations. For course descriptions, see Section IX of this catalog.

Career Opportunities

Emergency Medical Technician

Faculty

Full Time

Brian Hendricksen
Scott Jones
Dave Oleson

Degrees and Certificates Awarded

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

Certificate Programs

EMERGENCY MEDICAL TECHNICIAN I CERTIFICATE (AMBULANCE)

8.0 units

ALDH 71 Emergency Medical Technician I (Ambulance) 8.0
Valid for two years from date of issue.

EMERGENCY MEDICAL TECHNICIAN CERTIFICATE (REFRESHER)

1.0 unit

ALDH 72 Emergency Medical Technician
(Ambulance) Refresher Course 1.0

Required for renewal of Emergency Medical Technician
Certificate.

ENGINEERING

Victor Valley College does not offer this program, but does offer preparatory courses needed for transfer into Engineering.

Engineers seek to understand and solve a broad range of technological problems faced by our society. Engineers are responsible for such projects as converting raw materials and power sources into useful products, developing scientific equipment, and designing and planning the construction of buildings, highways, and rapid transit systems. As society becomes more technologically complex, so do the ever-emerging branches of engineering.

The rigorous curriculum of engineering programs is for high achieving students who have developed good study habits and possess a strong math and science background.

Degrees and Certificates Awarded

Associate in Science, Math/Science

Associate Degree

No associate degree offered with a major in Engineering from Victor Valley College. Because the math and science requirements are so

extensive, students usually pursue an associate degree with a major in Math/Science.

Transfer

Engineering is a highly competitive transfer degree which is impacted at many universities. The following courses are minimal requirements for most engineering majors: CHEM 101, 202; MATH 226, 227; PHYSICS 101, 202, 203 General education requirements to include ENGL 101 and 202.

See appropriate university catalog for specific general education requirements as these requirements for engineering majors vary from university to university. IGETC or CSU General Education-Breadth Requirements are not always appropriate for an engineering major.

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

University of California, Riverside Chemical Engineering:

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Engineering.

California State University

Campuses that offer Engineering majors include: CSU-Chico, Fresno, Long Beach, Los Angeles, Northridge, Pomona, Sacramento, San Diego, San Francisco, San Jose, San Luis Obispo and Maritime Academy.

Refer to ASSIST, at www.assist.org for major preparation requirements.

ENGLISH

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

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

Career Opportunities

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

Copywriter
Creative Writer
Editor
Journalist
Library Reference Worker
Magazine Writer
Proofreader
Public Relations Worker
Researcher
Technical Writer

Faculty

Full Time

Tim Adell
Claudia Basha
Robert Begley
Bryce Campbell
Andrea Glebe
Patty Golder
Carol Gollither
Joe Pendleton
Jane Skuster
Judy Solis
Patricia Teel
Karen Tomlin
Patricia Wagner
James Wilson

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program No certificates awarded.

Associate Degree

No associate degree offered with a major in English. English courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements. ENGL 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

English major

ENGL 245 + 246
CSU General Education-Breadth Requirements

University of California, Riverside

English major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language (ESL) is the study of English designed for non-native speakers of English. As California becomes culturally and linguistically more diverse, the need for language and cultural orientation grows. Moreover, non-native speakers of English will need to develop academic language skills necessary for success at the college level. It is the goal of the ESL program to meet that need. For course descriptions, see Section IX of this catalog.

Career Opportunities

Although ESL is not recognized as a separate major, it is a necessary component for success in any field for the non-native student.

Faculty

Full Time

Laird Eklund
Maria Ruiz

ENVIRONMENTAL STUDIES

Promoting an understanding of the interaction of human beings with their environment is the focus of Environmental Studies. Career Opportunities cover a wide range of positions in public agencies, business, industry and nonprofit organizations which need individuals who can provide up-to-date environmental information and assist in compliance with environmental regulations. This transfer major combines courses from the biological sciences, physical sciences, and social sciences.

Transfer

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

California State University, San Bernardino **Environmental Studies major**

Track A: BIOL 203, CHEM 100 or H100

Three courses from the following: ANTH 101, BIOLOGY 201, 202, CHEM 206, GEOG 101+101L, GEOL 101, PHYSICS 100 or 221

Track B: BIOL 201 + 202 + 203, CHEM 101, 202

One course from the following: PHYS 100, 221

Optional: CHEM 281 + 282

Optional: One course from the following:

GEOG 101+101L, GEOL 101

CSU General Education-Breadth Requirements

University of California, Riverside

Environmental Science major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

FINE ARTS

Degrees and Certificates Awarded

Associate in Arts, Fine Arts

Associate Degree

To earn an Associate in Arts degree with a major in Fine Arts, complete a minimum of 18 units from any of the following courses:

- ANTH
ANTH 151
- ART
ART 101, 102, 104, 105, 106, 107, 108, 109, 112, 113, 114, 115, 120, 121, 122, 123, 124, 150, 151, 125, 126, 128, 129, 130, 131, 132, 133, 141, 142
- MUSIC
MUSC 101, 102, 104, 202, 204, 103, 105, 203, 205, 100, 112, 113, 115, 116, 117, 118, 110, 111, 210, 211, 120A-J, 130, 131, 134, 135, 128, 129, 137, 139, 140, 141, 146, 136, 145, 147, 122, 123, 124, 125, 132, 143, 144, 126, 108
- PHYSICAL EDUCATION
PE103, 128 PEDA 101, 150, 151, 152, 153, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 174, 175, 176, 177, 266, 267, 270, 271, 274, 275, 276, 277
- PHOTOGRAPHY
PHOT 52, 53, 54, 100, 101, 102, 103, 104, 105, 128, 129
- THEATRE ARTS

ENGL 116, TA 101, 102, 104, 106, 107, 109, 110, 111, 113, 115, 116, 117, 120, 125A-C, 128, 129, 160, 161, 166, 167, 170, 171, 174, 175, 266, 267, 270, 271, 274, 275, 276, 277

Transfer

The Associate in Arts degree in Fine Arts is often a degree earned by students who plan to pursue a bachelor's degree in transfer majors such as Art, Music, Photography, and Theatre Arts. Students who plan to pursue a bachelor's degree should complete the 18 units in Fine Arts for the major and fulfill the CSU General Education-Breadth Requirements or the IGETC before transfer.

FIRE TECHNOLOGY

Fire protection is a highly specialized professional field requiring extensive knowledge and use of scientific principles. Successful application of the fundamental principles of fire protection, including suppression and extinguishment of fires, rescue, emergency medical services, prevention techniques and practices, preplanning for fire protection, and disaster control, requires technical knowledge and the ability to work within an organized system at the fire ground or other emergency scene. These actions require trained, professional people to accomplish the goals and objectives of today's public and/or private organizations in meeting their commitment to the public and employees they serve. Fire Technology provides the student the opportunity to prepare for a rewarding career in the public fire service or in private industry. For course descriptions, see Section IX of this catalog.

Fire Technology

This Occupational Education program in Fire Technology at Victor Valley College provides vocational and technical in-service training for interested students. Each student who completes a program of courses that meets the specified requirements is entitled to a Certificate of Completion in that field. Certificates are awarded as evidence that well defined levels of proficiency have been attained and they are recognized as such by employers.

In order to be awarded the certificate, the student must have completed the prescribed program with at least a 2.0 grade point average in the prescribed course work. The number of courses prescribed for each certificate varies according to the area of training.

Career Opportunities

- Apparatus Operator
- Disaster Preparedness
- Fire Administrative Analyst
- Fire Chief
- Fire Division Chief
- Fire Fighter I
- Fire Officer I
- Fire Prevention Specialist
- Fire Protection Engineer
- Industrial Fire Safety Specialist

FACULTY

Full-time

Tom Turner

Degrees and Certificates Awarded

- Associate in Science, Fire Technology
- Fire Fighter Certificate
- Fire Prevention Officer Certificate
- Fire Company Officer Certificate

Certificate Programs

FIRE FIGHTER CERTIFICATE

Awarded to the student who successfully completes the following course of study to meet the minimum qualifications and competencies as required by National Fire Protection Association and California State Fire Marshal's Fire Fighter I certification program.

32.0 units

All of the following must be completed:

		Units
FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 82A	Hazardous Materials First Responder	1.5
FIRE 81	Emergency Medical Technician	8.0
	<i>OR</i>	
ALDH 71	Emergency Medical Technician I (Ambulance)	8.0
FIRE 95	Basic Fire Academy	10.0

FIRE COMPANY OFFICER CERTIFICATE

Awarded to the individual who has successfully completed all requirements for certification by the State Fire Marshal's Office for Fire Officer. Meets entry requirements for firefighters to the middle and upper level management positions within the agency.

61.0 units

All of the following must be completed:

		Units
FIRE 100	Fire Protection Organization	3.0
FIRE 101	Fundamentals of Fire Service Operations	3.0
FIRE 102	Fire Prevention Technology	3.0
FIRE 103	Fire Protection Equipment and Systems	3.0
FIRE 104	Fire Behavior and Combustion	3.0
FIRE 105	Fire Apparatus and Equipment	3.0
FIRE 106	Fire Company Organization and Management	3.0
FIRE 108	Fire Hydraulics	3.0
FIRE 70	Fire Instructor Training 1A	2.0
FIRE 71	Fire Instructor Training 1B	2.0
FIRE 72	Fire Command 1A	2.0
FIRE 73	Fire Command 1B	2.0
FIRE 76	Fire Management 1	2.0
FIRE 82A	Hazardous Materials First Responder	1.5
FIRE 81	Emergency Medical Technician	8.0
	<i>OR</i>	
ALDH 71	Emergency Medical Technician I(Ambulance)	8.0
FIRE 95	Basic Fire Academy	10.0
CIS 101	Computer Literacy	4.0

Group II - Three of the following must be completed:

FIRE 107	Fire Investigation	3.0
FIRE 109	Wildland Fire Control	3.0
FIRE 61	Rescue Practices	3.0
FIRE 74	Fire Prevention 1A	2.0
FIRE 75	Fire Prevention 1B	2.0
FIRE 77	Investigation 1A	2.0

FIRE PREVENTION OFFICER CERTIFICATE

Describes an individual who has successfully completed the competencies as required for a certified fire prevention officer by the California State Fire Marshal's Office. Meets entry requirements for fire prevention specialist and/or fire prevention officer.

30.0 units

All of the following must be completed:

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

Associate Degree

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

Transfer

Not usually a transfer major. Some Fire Technology courses do transfer as Electives or fulfill subject credit requirements.

As an exception, California State University, Los Angeles offers a B.S. degree in Fire Protection Administration and Technology which requires a minimum of 15 major units to be completed in Fire Technology at a community college. See counselor for community college courses which will transfer as requirements toward the bachelor's degree. Students planning to pursue this bachelor's degree should also complete the CSU General Education-Breadth Requirements before transfer if possible.

Business Administration is also a highly recommended bachelor's degree major for people in this field who are seeking advancement. See Business Administration for transfer requirements.

FRENCH

The study of French concentrates on explaining and communicating ideas and concepts by means of reading, writing, and verbal processes through creative use of words and study of culture, literature, and civilization, with classroom emphasis on the spoken language. This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising
Education
Government
Health Services
International Business
Journalism
Law Enforcement
Publishing
Social Work
Writing

Faculty

Full Time

Claudia Basha

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

Transfer

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

California State University, San Bernardino

French major

FREN 104

Business Track: Add BADM 101 or 103, CIS 101

CSU General Education-Breadth Requirements

University of California, Riverside

French major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Programs in GIS at VVC are offered under two different disciplines:

The Agriculture and Natural Resources department offers two classes and a certificate with emphasis on students developing a GIS for conservation projects in the Mojave Desert. They utilize the Environmental Systems Research Institute's suite of ARCGIS software and have an active Mobile GIS/GPS unit that uses the ARCPAD software.

The Anthropology department plans to offer four classes and a certificate in GIS for the Social Sciences.

GEOGRAPHY

Geography explains and describes the Earth. Geographers look at earth-sun relationships, seasons, weather, and other physical aspects of the earth's environment such as climate, topography, earthquakes, and volcanoes. Some geographers look at the cultural landscape of the earth in terms of its people, their organizations, language, religion, and settlement patterns. All geographers compare and contrast information in order to explain similarities and differences as they occur over time and space. The framework of geography is location through the use of place names. The primary tool of geographers is the map. For course descriptions, see Section IX of this catalog.

Career Opportunities

Computer analysis of data through the use of Geographic Information Systems is a rapidly growing field which can be applicable to many employment settings. The following list is a general guideline. Most require at least a bachelor's degree.

Aerial Photographer/Interpreter
Biogeographer
Cartographer
City Planner
County Planner
Environmental Analyst
Economic Geographer
Foreign Correspondent
Foreign Correspondent Educator
Industrial Location Specialist
International Trade Relations
Marketing Analyst
Meteorologist
Population Specialist
Resource Planner
Soil Scientist
Transportation Specialist
Travel Agent

Faculty

Full Time

Carol A. DeLong

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

Transfer

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

California State University, San Bernardino

Geography major

Track A & B GEOG 101 + 101L, 102
Track C (Social Science Credential Option)
ANTH 102, ECON 101, 102, GEOG 101 + 101L, 102,
HIST 103 + 104, 117, 118 or H118, POLS 102 or H102,
PSYC 101, SOC 101, RLST 117/PHIL 117
CSU General Education-Breadth Requirements

University of California, Riverside

Geography major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

GEOLOGICAL SCIENCES

Geology is the science of the world. It is a broad field encompassing such diverse specific topics as ground water management, mining, volcanic processes, and soil conservation as well as theoretical aspects within the broader fields of mineralogy, petrology, paleontology, weathering processes, plate tectonics, and geologic times. Geology necessarily extracts much of its knowledge from the related sciences of chemistry, physics, biology, meteorology, oceanography, and even astronomy.

Because of its breadth, virtually no construction, manufacturing, or environmental planning can take place without considering geological or environmental principles, and there is a corresponding range of employment opportunities.

The geological sciences program is a two-year sequence designed to prepare students for continuing study at an advanced undergraduate level at a four-year college or university. For course descriptions, see Section IX of this catalog.

Career Opportunities

Mining Geologist
Environmental Planner
Ground Water Quality Manager
Petroleum Engineer
Paleontologist
Geoarchaeologist
Geological Engineer
Soil Conservationist
Metallurgist
Exogeologist (Astrogeologist)
Geomorphologist

Degrees and Certificates Awarded

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

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Geological Sciences. Courses in Geological Sciences may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major.

Transfer

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

California State University, San Bernardino

Geology major

BA: BIOL 201, GEOL 101, 102, MATH 226
One course from the following: CHEM 101, H100, 201
One group from the following: PHYS 221 + 222 or
PHYS 201, 202, 203 + H204
BS: CHEM 201, 202, GEOL 101, 102, MATH 226 + 227,
PHYS 201, 202, 203 + H204
One course from the following: BIOL 100, 201
Environmental Option: Add CHEM 206, H206
CSU General Education-Breadth Requirements

University of California, Riverside**Geology major and Geophysics major**

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required. See counselor for general education requirements for College of Natural and Agricultural Sciences.

GERMAN

The study of German focuses on explanation and communication of ideas and concepts using reading, writing, and verbal processes. Classroom emphasis is on the spoken language. Culture, literature, and civilization are important aspects of study as well. This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities

Advertising
Education
Government, including military
Health Services
Journalism
Law Enforcement
Publishing
Scientific Research
Social Work

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

GRAPHIC ARTS

See Computer Integrated Design and Graphics.

GUIDANCE

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

Students needing help in identifying career and educational goals or help in applying successful learning and studying techniques are encouraged to sign up for these classes. For course descriptions, see Section IX of this catalog.

HEATING, VENTILATION, AIR CONDITIONING AND REFRIGERATION

See Construction and Manufacturing Technology.

HISTORY

History examines the processes that have made today's realities. History is an evolving record of emotion, aspiration, frustration, and success. Historians deal with the goals, fears, interests, opinions, and prejudices of people in the past. What made people the way they were? What is the impact of their thought and action on people today and what is their impact on people tomorrow? As a study of people, history offers both a necessary understanding of one's place in the human experience and the conceptual framework for a lifelong avocation. For course descriptions, see Section IX of this catalog.

Career Opportunities

Careers usually require bachelor's or advanced degrees.

Advertising/Marketing Research
Archivist/Museum Curator
Educator
Genealogist
Historian
Journalist/Writer/Editor
Lobbyist/Law Clerk/Lawyer
Management Trainee
Politician/Diplomat
Pollster
Professor
Reference Librarian
Risk Analyst
Researcher
Teacher
Writer

Faculty**Full Time**

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, complete the following courses prior to transfer if possible:

California State University, San Bernardino

History major

Track A (Social Science Credential Option): ECON 101, 102, GEOG 101 + 101L, GEOG 102, HIST 103 + 104, HIST 117 or H117, HIST 118 or H118.

Track B: HIST 103 + 104, HIST 117 or H117, HIST 118 or H118, CSU General Education-Breadth Requirements

Track C: HIST 103, 104, 117, H117, 118, H118

University of California, Riverside

History major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

HONORS

The honors program offers enriching experiences to improve the quality of education for academically talented students who are striving for advanced academic achievement. Honors courses are more extensive and intensive in terms of 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. For course descriptions, see Section IX of this catalog.

JOURNALISM

Journalism offers the interest and challenges of investigating and reporting current events and topics of interest. The discipline touches on every aspect of human affairs with the opportunity to specialize in areas such as politics, sports, economics, and international affairs. Journalistic skills demand good writing ability, creativity, curiosity, and commitment to exacting professional standards. While one typically thinks of journalists working for a newspaper, many excellent employment opportunities are offered with popular magazines, professional journals, business and industry newsletters, government agencies, and publishing houses. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising Agency Executive
Community Relations Specialist
Copy Writer
Journalism
Promotions Manager
Public Information Officer
Publicity Director
Reporter
Television News Producer

Degrees and Certificates Awarded

Journalism Certificate

Certificate Programs

JOURNALISM CERTIFICATE

17.0 units

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

		Units
JOUR 108	Fundamentals of Journalism	4.0
JOUR 108L	Journalism Lab	4.0
ENGL 101	English Composition	4.0
PHOT 100	Beginning Photography	3.0
BET 135	Desktop Publishing: PageMaker	2.0

LAW

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

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

The following sampling of ABA accredited law schools in California require sufficient scores on the LSAT and a bachelor's degree:

Pepperdine University
Stanford University
University of California
Berkeley
Davis
Los Angeles
University of LaVerne
University of Southern California

LIBERAL ARTS

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Associate Degree

The Associate degree in Liberal Arts is designed for students who wish to have a broad knowledge of liberal arts and sciences plus additional coursework in an "Area of Emphasis". This area of emphasis is recommended for students who plan on transferring to California State University (CSU) or University of California (UC) as students can satisfy general education requirements, plus focus on transferable course work that relates to majors at these institutions. Please consult with a counselor for information regarding your intended major and the specific college or university of your choice.

Complete 18 units in one "Area of Emphasis" from those outlined below. (Note: Where appropriate, courses in the "Area of Emphasis" may also apply towards General Education areas on the General Education pattern).

For **ALL DEGREE OPTIONS**: Complete necessary Victor Valley College Graduation and Proficiency requirements (See catalog for a list of applicable courses).

All classes listed below transfer to CSU system and courses in BOLD also transfer to the UC system. Please refer to www.assist.org for articulation agreements and transfer details for each course.

UNITS

I. ASSOCIATES DEGREE IN LIBERAL ARTS:

A. General Education 35-39

A minimum of 39 units necessary to meet **CSU-GE Certification** requirements

or

A minimum of 35 units necessary to meet **IGETC Certification** requirements only.

B. Areas of Emphasis: 18

A minimum of 18 units are required in one Area of Emphasis listed below. For depth of study, 2 or more courses in one discipline are required.

C. Electives: 1-6

Elective units may be necessary to total 60 overall units required for the Associate Degree. These units must be transferable to the CSU and/or UC for appropriate credit.

Total Units 60

AREAS OF EMPHASIS

1. 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.

**ANTH 101 + 101L
ASTR 101**

BIOL 100, 104, 107, 109, 114,118, 121, 201, 202, 203, 211,212, 221, 231, 232

CHEM 100, H100, 114, 201, 202, 206, 207, H207, 255, 281, 282

GEOG 101 + 101L

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, H204, 221, 222

PSCI 101, 114, 115

2. ARTS & HUMANITIES: 4903.00

These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and 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, 104, 105, 106, 107, 108, 109, 112, 113, 114, 120, 122, 125, 150

CMST 105

ENGL 102, H102, 116*, 162, 210, 211, 220, 225, 230, 231, 232, 235, 240, 241, 245, 246, 247

Foreign Language: **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, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157

MUSIC 100, 101, 102, 103, 115, 116, 117, 118, 131, 202, 204

PE 103

PHIL 101, 108, 117, 120, 121

RLST 101, 105, 106, 110, 111, 115, 117

TA 101, 102, 104, 107, 110, 116*, 117

- **Cross-listed course English 116 is the same as TA 116**

3. SOCIAL & BEHAVIORAL SCIENCES 4903.30

These courses emphasize the perspective, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in Social and Behavioral Sciences. Students will study 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.

AJ 101

ANTH 101, 102, 103, 105, 106

CHDV 100, 106,

CMST 105 (Intercultural)

ECON 101, 102

GEOG 101, 102, 103

HIST 103, 104, 115, 117, H117, 118, H118, 119, 120, 121, 124, 125, 127, 130, 131, 135, 150, 153, 155, 157

POLS 101, 102, H102, 103, 110, H110, 111, 112, 113

PSYC 101, H101, 103, 110, H110, 111, 116, 121, 130, 204, 213

RLST 105, 106, 110, 113, 115

SOC 101, 102, 103, 107

LIBERAL STUDIES

See "Education."

MATH/SCIENCE

Degrees and Certificates Awarded

Associate in Science, Math/Science

Associate Degree

To earn an Associate in Science degree with a major in Math/Science, complete a minimum of 18 units from the following courses:

- MATHEMATICS
MATH 90, 104, 105, H105, 119, 120, H120, 226, H226, 227, H227, 228, H228, 270, 129, 231, 132
- LIFE SCIENCES
ALDH 102*
ANTH 101, 101L
BIOL 201, 202, 203, 108, 100, 114, 129, 211, 212, 221, 231, 232, 121, 126, 127, 128, 149, 215A, 215B, 215C, 70, 104, 107, 109, 113, 118, 120
PE 102*
- PHYSICAL SCIENCES
ASTR 101
CHEM 201, 202, 255, 206, 207, 281, 282, 100, H100, 114, 128, 129, 55, 120, H206, 255, 281, 282
ELCT 57, 58, 59, 60
GEOG 101, 101L, 103
GEOL 101, 102, 103, 109, 110, 112, 128, 129
OCEA 101
PSCI 101, 114, 115, 128,
PHYS 201, 202, 203, H204, 221, 222, 100, 128, 129

* Cross-listed courses (the same course listed under more than one department) may be counted only once. GUIDE 105 and PSYC 105 are the same course.

Transfer

The Associate in Science degree in Math/Science is often a degree earned by students who are pursuing a bachelor's degree in transfer majors such as Biology, Chemistry, Engineering, Environmental Studies, Geology, Mathematics, and Physics. Breadth Requirements, IGETC, or appropriate general education requirements for specific transfer major.

MATHEMATICS

Mathematics is a rapidly expanding, dynamic discipline which has contributed to recent advances in astronomy, biology, chemistry, engineering, medicine and physics. Mathematics is truly becoming the necessary language of a wide spectrum of knowledge.

The mathematics program is designed to accept students at many levels of mathematical maturity and enable them to gain the mathematical knowledge necessary for them to achieve their goals. For course descriptions, see Section IX of this catalog.

Career Opportunities

An undergraduate degree in mathematics can lead to a variety of jobs in business, industry, government, and teaching. Mathematicians are employed by companies in communication, computers, energy and finance.

Faculty

Full Time

Robert Carlson
Mary Lynn Doan
Joe Estephan
Patrick Malone
Pat Mauch
Arda Melkonian
Dave Moser
Said Ngobi
Cherie Reardon
Jeff Redona
Jeff Ridge
Stephen Toner
Anh Tran Weis

Degrees and Certificates Awarded

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

Certificate Program

No certificates awarded.

Associate Degree

A major has been submitted to the Chancellor's office and is pending approval. Mathematics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MATH 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Mathematics major

BA: MATH 226, H226, 227, H227, 228, 231, 270
Select One: CIS 201, 203, 206A, 206B
BS: Add PHYS 201
CSU General Education-Breadth Requirements
Select One: CIS 201, 203, 206A, 206B

University of California, Riverside

Mathematics major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

MEDIA ARTS

Digital Animation has rapidly become one of the fastest growing careers within the computer graphics industry. Victor Valley College's Media Arts courses are designed for individuals seeking training and experience ranging from fundamental concepts and principles to advanced techniques and procedures currently used in today's workplace. Designed for both the beginner and the more advanced student, the Media Arts' curriculum is geared toward those interested in creating video games, broadcast commercials, product visualizations, animated characters and logos, 3D website graphics, and film-based special effects.

Students learn essential techniques and disciplines for producing professional quality work. Each student is immersed in simulated problem-solving situations similar to those encountered in production environments. Graduate students successfully completing the series of program courses possess entry-level skills that apply to such positions as storyboard artist, background artist, 3D modeler, character designer, character animator, texture artist, lighting specialist, effects artist and many other exciting career opportunities. Animation courses are also offered through the Computer Integrated Design and Graphics department.

Degrees and Certificate Programs

Digital Animation Technician I - SoftImage XSI Certificate

Digital Animation Technician I - 3ds Max Certificate

Digital Animation Artist Certificate

Certificate Programs

DIGITAL ANIMATION TECHNICIAN I -SoftImage XSI' CERTIFICATE

The SoftImage XSI certificate is designed to offer students a detailed look at one of the Animation industry's premiere 3D packages. Students 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.

9.0 units

All of the following must be completed with a grade of "C" or better.

	Units
MERT 50 Principles of Animation	3.0
MERT 51 Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52 Digital Character Animation	3.0

DIGITAL ANIMATION TECHNICIAN I - 3ds Max CERTIFICATE

The 3ds Max certificate is designed to offer 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.

9.0 units

All of the following must be completed with a grade of "C" or better.

	Units
CIDG 160 3ds Max Fundamentals	3.0
CIDG 260 3ds Max Advanced Modeling and Materials	3.0
CIDG 261 3ds Max Character Animation and Advanced Keyframing Techniques	3.0

DIGITAL ANIMATION ARTIST CERTIFICATE

The new Digital Animation Artist certificate is designed to expand an individual's knowledge in animation, giving them the traditional art principles and practices that will help them become a well-rounded animator. Employers often prefer computer animators who have the ability to draw and understand traditional art concepts and principles. By earning the Digital Animation Artist certificate, graduates will better position themselves of traditional art courses that include drawing and composition, life drawing and sculpture. An additional course specific to learning Adobe Photoshop is also required to earn certification.

15.0 units

Group I - Animation Track

Choose between software package options I or II

All of the following must be completed with a grade of "C" or better.

	Units
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 XSI	
MERT 50 Principles of Animation	3.0
MERT 51 Intermediate Modeling and Animation with SoftImage XSI	3.0
MERT 52 Digital Character Animation	3.0
MERT 56 Photoshop for Animators	3.0

Group II - Art Track

Choose any ONE of the following courses.

Each course must be completed with a grade of "C" or better.

	Units
ART 101 Survey of Art History	3.0
ART 104 Film as an Art Form	3.0
ART 112 Design I	3.0
ART 113 Design II	3.0
ART 122 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

MEDICAL AND HEALTH PROFESSIONS

The programs of study in the following medical and health professions are not offered at Victor Valley College, but preparatory courses needed for transfer into these majors are offered as outlined below.

Athletic Training

Athletic training is a growing profession that involves evaluation, management, and rehabilitation of athletic injuries. It is also the organization and administration of athletic training programs, as well as the education and counseling of the athlete. This program of study was recently endorsed by the American Medical Association as an allied health profession.

Athletic Training programs are usually offered as an option under Physical Education majors at most universities. Students should fulfill all transfer requirements for a Physical Education major and complete the following:

BIOL 211 or 212, CHEM 100 or PHYS 100, BIOL 231 or 232, PSYC 101

Chiropractic Medicine

Chiropractic Medicine places the emphasis on spinal manipulation and neuromuscular treatments as the means of restoration and preservation of health. Chiropractors diagnose health problems, provide care and consult with other health care providers. The following are typically required:

BIOL 201, 211 or 212, 231 or 232, CHEM 101, 202, 281, 282, ENGL 101, 102, 104 or CMST 109, MATH 105, PHYS 221, 222, PSYC 101
15 semester units from Social Sciences and Humanities

The following four schools are the only California colleges accredited by American Chiropractic Association:

Research each one for specific requirements.

Cleveland Chiropractic College, Los Angeles
Life Chiropractic College-West, San Lorenzo
Los Angeles College of Chiropractic
Palmer College of Chiropractic, Sunnyvale
So. Calif. Univ. of Health Sciences

Dental Hygiene

Dental hygienists provide educational and clinical services for patients, including dental health education and disease prevention procedures, obtaining and recording patients' medical and dental histories, scaling and polishing teeth, recording conditions of patients' mouths and teeth, exposing and processing dental x-ray films, nutritional counseling, and applying fluoride and pit and fissure sealants for prevention of decay. Dental Hygiene is a rapidly growing profession and is emerging as a vital, highly respected component of dental health.

The following three schools are the only California colleges accredited by Commission on Dental Accreditation which award a bachelor's degree:

Loma Linda University
University of California, San Francisco
University of Southern California
University of the Pacific

Before admission into the Dental Hygiene program at University of Southern California, students must have graduated from an accredited secondary school, have a minimum of 60 semester units of transferable course work, rate sufficiently high on the Dental Hygiene Aptitude Test (DHAT), and complete all course requirements as follows:

University of Southern California

Dental Hygiene major:

CHEM 201, 202, ENGL 101, 102, PSYCH 101, SOC 101, CMST 109
Two courses from: BIOL 211 or 212

Other courses recommended to complete 60 required units: CHEM 206 in addition to other chemistry requirements, BIOL 211 in addition to other biology requirements, SPAN 101, 102, 103

Check colleges of interest for updates.

A handout with all transfer requirements for a B.S. degree in Dental Hygiene from Loma Linda University is available in Counseling. No appointment is necessary to receive a copy of these requirements.

Dentistry

Dentists provide comprehensive dental treatment to patients including oral and maxillofacial surgery, endodontics, orthodontics, and restorative processes.

Students must have graduated from an accredited secondary school, complete a minimum of 90 semester units of transferable course work, score sufficiently high on the Dental Admission Test (DAT), and meet the following minimum requirements:

BIOL 201 or 202, CHEM 201, 202, 206+207 or 281+282, ENGL 101, 102, MATH 226, PHYS 221, 222, PSYC 101, CMST 109
Choose two courses from these biology courses: BIOL 201, 202, 221

11 units in Soc. Sci/Humanities/For. Language

The following five schools are the only California colleges accredited by the Commission on Dental Accreditation:

Loma Linda University
University of California, Los Angeles
University of the Pacific
University of California, San Francisco
University of Southern California

A handout with all transfer requirements for a D.D.S. degree in Dentistry from Loma Linda University is available in counseling. No appointment is necessary to receive a copy of these requirements.
Check colleges of interest for updates.

Medicine (MD or Doctors of 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, GPA, letters of recommendation, and sufficiently high scores on the Medical College Admissions Test (MCAT).

Most medical schools require: BIOL 201, 202, CHEM 201, 202, 281, 282, ENGL 101, 102, MATH 226, 227, PHYS 221, 222

In addition, courses from the following are highly recommended: CHEM 206, 207, CIS 101, SPAN 101,102, PSYC/SOC/CMST 106 or 109

A minimum of 90 semester units, at least 20 of which must be upper division from a four-year university.

A handout entitled "Premedical Course Preparation for California Medical School Programs" is available from the VVC Counseling department.

The following eight medical schools in California are accredited by the Liaison Committee on Medical Education (LCME) of the American Medical Association (AMA):

Loma Linda University
Stanford University
University of California
Davis
Irvine
Los Angeles
San Diego
San Francisco
University of Southern California
Western Univ. of Health Sciences

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

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

Nursing - see page 142

Occupational Therapy

Occupational Therapists look at the psychological and social concerns, as well as physical factors, to assist physically disabled people relearn and adapt basic motor skills. Occupational Therapists use every day (occupational) activities as a means of helping those people achieve independence, focusing on critical daily tasks ranging from dressing to employment tasks.

The following award a bachelor's degree in Occupational Therapy:

CSU Dominguez Hills
Loma Linda University
San Jose State University
University of Southern California

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

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

Occupational Therapy Assistant

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

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

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

Optometry

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

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

Southern California College of Optometry
University of California, Berkeley

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

Southern California College of Optometry, Fullerton

Doctor of Optometry program

BIOL 201, 202, CHEM 201, 202, 206 or 281, ENGL 101, 102, MATH 120, 226, BIOL 221, PHYS 221, 222, PSYC 101, 110

Check colleges for updates.

Osteopathic Medicine (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.

The College of Osteopathic Medicine of the Pacific is the only California college accredited by the Council of Allied Health Education of the American Medical Association.

Entrance into the intense four-year program is based on a minimum requirement of 90 semester units or 3/4 toward a bachelor's degree and completion of the following admission requirements:

Western University of Health Science

Doctor of Osteopathic Medicine program

CHEM 201, 202, 281, 282, ENGL 101, 102, PHYS 221, 222

Choose two courses from the following: BIOL 211 or 212, BIOL 201, 202, 203, 104, BIOL 231 or 232

Six units in Behavioral Science

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.

Research websites for updates.

Doctor of Pharmacy degrees:

University of the Pacific (Stockton):

BIOL 201, 202, 221 CHEM 201, 202, 281, 282, ECON 101, ENGL 101, 102, MATH 226, PHIL 101, PHYS 201, 221, PSYC 101, CMST 109

Choose one course from: ANTH 102, GEOG 102, RLST 110, CMST 105

Choose one course from: ART 101, 102, 105, MUSC 100, TA101

University of Southern California (Los Angeles):

BIOL 201, 202, CHEM 201, 202, 281, 28, ENGL 101, 102, MATH 226, CMST 109, ECON 101 or 102, PSYC 101, six units from humanities, twelve units from social science

A minimum of 60 semester hours.

Only grades of C- or higher accepted.

Western University of Health Sciences (Pomona):

ENGL 101; either ENG 102, 104 or 109; MATH 226, 227, 228 BIOL 211, 231, 221; CHEM 201 + 202, 281, 282, 207; CMST 109, AND 9 units of Humanities and/or SOCIAL SCIENCES, chosen from ANTH, SOC, PSYC, TA, MUSC, ART.

Physical Therapy

Physical Therapists evaluate neuromuscular, musculoskeletal, sensory-motor, and related cardiovascular and respiratory functions of the patient. They perform and interpret tests and measurements of these functions and abilities as an aid in the treatment of the patient.

Physical Therapy is a highly competitive transfer major which is impacted at many universities. Fulfilling all minimum requirements for admission to this program, maintaining a high GPA, and strong letters of recommendation are important in the selection process.

The following courses are minimum requirements for the Physical Therapy major at most universities: BIOL 211 or 212, CHEM 201, 202, 281, 282, ENGL 101, 102, MATH 120 or 104 or 226 (Based on specific univ.), PHYS 221, 222, BIOL 231 or 232, PSYC 101, 110, CHEM 207 recommended.

The following nine California colleges offer bachelor's degree or master's degree programs accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE):

California State University(ies)

Fresno, Long Beach, Northridge,

Sacramento, San Francisco

Azusa Pacific, Chapman College, Loma Linda University

Mount St. Mary's College, University of California, San Francisco

University of the Pacific, University of Southern California

Western Univ. of Health Sciences

A handout with all transfer requirements for a Master of Physical Therapy degree from Loma Linda is available in the Counseling Department. No appointment is necessary to receive a copy of these requirements.

Because each college varies as to what it requires, **students should request entrance requirements for each of the above colleges to which they plan to apply.** A counselor can then help a student determine which Victor Valley College courses meet specific requirements.

Physical Therapist Assistant

The physical therapist assistant is a skilled technical health worker who, under the supervision of a physical therapist, assists in the patients' treatment program. The extent to which the physical therapist assistant is involved in treatment depends upon the policies of the health facility, the supervising therapist, and the patient.

The following California colleges offer associate degrees in Physical Therapist Assistant:

Loma Linda University.

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

Physician Assistant

A physician assistant (PA) is a skilled health care professional who, under the supervision of a physician, performs a variety of medical, diagnostic and therapeutic services. Most physician assistants routinely elicit complete medical histories and perform comprehensive physical examinations. They treat patients with common acute problems such as infections and injuries, perform minor surgical procedures, and provide ongoing care for common chronic problems such as arthritis, hypertension and diabetes.

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. The following course requirements must be completed before transfer:

BIOL 211 or 212, 231 or 232, CHEM 100, ENGL 101, 102, MATH 105, PSYC 101, 12 units from humanities

Choose one course from: BIOL 201, 202, 203, 100, BIOL 221

Charles Drew University, Los Angeles
Loma Linda University
Stanford University
University of California, Davis
University of Southern California
Western Univ. of Health Sciences

Because the requirements for each program vary slightly, **students who are serious about pursuing a career as a physician assistant should send for an application and admission requirements from each college to which they plan to apply.** Counselors will help students determine which Victor Valley College courses meet these requirements.

Podiatry

Podiatry is a specialty in medicine and surgery. A podiatrist is concerned with the prevention, diagnoses, and treatment of diseases and disorders which affect the human foot and contiguous structures.

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

Research website for updates.

**California College of Podiatric Medicine, San Francisco
Doctor of Podiatric Medicine program**

BIOL 201, 202, CHEM 201, 202, 207, 281, 282, ENGL 101, 102, PHYS 221

12 elective units in Liberal Arts

Radiologic Technology

The radiologic technologist (x-ray technician) is responsible for the accurate demonstration of body structures on a radiograph or other receptor. The technologist determines proper exposure factors, manipulates medical imaging equipment, evaluates the radiographic quality, and provides for patient protection and comfort.

Most radiologic technology programs are two-year programs with students earning an associate degree upon completion of the program.

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

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

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

Chaffey College Radiologic Therapy

ALDH 139 , BIOL 211 or 212, CHEM 100 or PHYS 100, ENGL 101, MATH 10 or show competency of basic math or MATH 10, MATH 50, POLS 102, CMST 109, one course in the arts, one course in humanities, one course in social sciences, one course in a multi-cultural/gender studies.

A handout with all transfer requirements for an A.S. degree in Medical Radiography and a B.S. degree in Radiation Technology from Loma Linda University is available in counseling. No appointment is necessary to receive a copy of these requirements.

Speech-Language Pathology and Audiology

Speech-language pathologists are concerned with evaluating and treating children and adults with communication disorders. Difficulties in the areas of speech, language, fluency, and voice are associated with a variety of disorders, including developmental delay, hearing impairment, cleft palate, cerebral palsy, stroke, and head injury. Audiologists are concerned with prevention, identification, assessment, and rehabilitation of hearing disorders. For both professions, it is important that the student have an interest in working with people.

The following California colleges offer bachelor's degrees or master's degrees in Speech Pathology and/or Audiology:

Biola University, California State University
(several campuses), Loma Linda University

Sports Medicine

The field of Sports Medicine deals with understanding the role of science in exercise and health promotion. Programs in Sports Medicine provide a sound knowledge of the scientific principles of maintaining, enhancing, and rehabilitating the body through the medium of exercise and sport.

Only a few universities offer a major in Sports Medicine or even a Sports Medicine option within a physical education or health-related degree. Pepperdine University offers one of the few B.S. degrees in Sports Medicine. To pursue a bachelor's degree, the following course work should be completed prior to transfer:

Pepperdine University Sports Medicine major

BIOL 211 or 212, 231 or 232, CHEM 201, 202, ENGL 101, 102, MATH 226, PHYS 221, 222, CMST 109, third semester of foreign language.

Complete general education requirements of specific university including at least 9 units of humanities and 9 units of social sciences. See Pepperdine catalog for general education requirements.

Calif. Lutheran University, Christian Heritage College
Vanguard University

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) and any additional examinations, and completion of a minimum of 72 semester units from an accredited college to include the following entrance requirements:

BIOL 201, 202, 203, CHEM 201, 202, 281, 206 or 282, ENGL 101, 102, MATH 120, PHYS 221, 222, CMST 109.

8 units from anthropology, art, history, music, language, psychology, sociology to fulfill humanities and social science general education requirements. Additional upper division required sciences must be taken at a four-year university.

Recommended: PSYC 101, SPAN 101, 102, CHEM 207

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

Check websites for specific requirements.

University of California, Davis
Western Univ. of Health Sciences

MEDICAL ASSISTANT

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

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

Career Opportunities

Medical Assistant
Patient Account Representative
Receptionist
Medical Secretary
Medical Records Technician

Faculty

Full Time

Diego Garcia

Degrees and Certificates Awarded

Associate in Science, Medical Assistant
Medical Assistant Certificate

Certificate Program

MEDICAL ASSISTANT CERTIFICATE

This certificate prepares students for an entry-level position in a physician's office, clinic, or medical records.

		23.5 units
		Units
ALDH 139	Medical Terminology	3.0
ALDH 80	Pharmacology	3.0
ALDH 81	Medical Insurance	3.0
ALDH 82	Medical Office Procedures	3.0
ALDH 82C	Medical Office Procedures/Clinical	5.0
ALDH 91	Basic CPR	0.5
BET 103	Beginning WordProcessing/Typing- WordPerfect for Windows A/B/C	3.0
	OR	
BET 104	Beginning Word Processing/Typing- Word for Windows A/B/C	3.0
PSYC 110	Developmental Psychology	3.0

Associate Degree

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

Transfer

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

MUSIC

Music is the study of the language of sound and its effect on the minds and souls of creator, performer and listener. It is one of the few academic disciplines to deal extensively with the development of the creative side of personhood; in that sense it is one of the most wholly "human" of the humanities. The creative problem-solving skills and discipline of music studies prepare students for a wide range of life's activities and pursuits. The Music Department offers a wide range of classes, providing opportunities for transfer music majors, music for general studies students, and the opportunity for student and community musicians of all skill levels to participate in a wide variety performance ensembles. For course descriptions, see Section IX of this catalog.

Career Opportunities

Accompanist
Announcer
Composer/Arranger
Educator
Instrumentalist
Music Publisher
Music Sales Business
Musician
Private Music Teacher
Studio Engineer
Vocalist

Faculty

Full Time

David Graham
Thomas E. Miller

Degrees and Certificates Awarded

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

Certificate Program

No certificate awarded.

Associate Degree

No associate degree offered with a major in Music. Music courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. MUSC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Transfer music majors are required to begin major courses at the freshman level. Music majors will take the following music courses in preparation for transfer to a four-year institution: MUSC 102, 103, 104, 105, 106, 110, 111, 202, 203, 204, 205, 206, 210, 211, and the appropriate applied music studies from MUSC 120-J. In addition, music majors music studies from MUSC 120-J. In addition, music majors must be enrolled in the appropriate performance ensemble each semester. The Music Department offers periodic workshops for transfer majors to insure that students are aware of the curriculum requirements of transfer institutions and such additional concerns as concert attendance, juries, entrance proficiency exams and scholarship and performance auditions.

To pursue a bachelor's degree at these specific universities below, complete the following courses prior to transfer along with the above recommended if possible:

California State University, San Bernardino

Music major

MUSC 102, 104, 103, 105, 210
CSU General Education-Breadth Requirements

University of California, Riverside

Music major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.
Completion of IGETC recommended.

NURSING

The Associate Degree of Science in Nursing is approved by the California Board of Registered Nursing. The graduate is eligible to take the National Council for Licensure Examination for Registered Nursing (NCLEX-RN) and, upon successful completion, becomes eligible for licensure as a Registered Nurse in the state of California.

California law allows for the denial of Registered Nurse Licensure on the basis of any conviction or action substantially related to nursing practice. The California Board of Registered Nursing requires applicants for licensure with prior convictions to provide proof of rehabilitation before taking the NCLEX-RN that establishes fitness for performing nursing functions. For further clarification, contact the Nursing Department or the California Board of Registered Nursing.

The Associate Degree Nursing Faculty accepts and operates within the framework of the philosophy and mission of Victor Valley College. The conceptual framework is based on the systems and change theory using the Nursing Process. The components of the curriculum are arranged around the client's bio-psych-social, and cultural/spiritual beliefs. The faculty believes that the student is an adult learner who is expected to take an active role in the learning process.

Separate application must be made into the nursing program. Several admission and progression options are available, including generic, advanced placement, transfer, non-graduate and 30 unit option. Specific information is available in the application packet, the student nurse handbook and from the program director. Please contact the Nursing Department for fall and spring application dates. For course descriptions, see Section IX of this catalog.

Prerequisites for admission into the nursing program.

1. Human anatomy (equivalent to Victor Valley College BIOL 211 or 212), 4-5 units completed with a grade of "C" or better.
2. Human physiology (equivalent to Victor Valley College BIOL 231 or 232), 4-5 units completed with a grade of "C" or better.
3. Microbiology (equivalent to Victor Valley College BIOL 221) 5 units with a grade of "C" or better.
4. Program prerequisites must be completed prior to application.

Enrollment Process

After the prerequisites have been verified and there are still too many students for the spaces available, those accepted into the program will be based on the enrollment criteria. The enrollment process is based on the recommended Best Practice for Enrollment prepared by the Chancellor's Office of the California Community Colleges, and approved by the Chancellor's Office. Please contact the Nursing Department or Nursing Counselor for further clarification of the enrollment process.

NOTE:

1. Prior to admission to the ADN program, students must demonstrate physical health as determined by a history and physical examination.

- 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.
- The College does not provide transportation to and from required clinical facilities.
- In order to continue in the ADN program students must earn a minimum grade of C in all nursing and other required courses.
- Nursing courses have specific prerequisites. Refer to course descriptions in this catalog.

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 units)

One course which meets the VVC Mathematics general education requirements for Category V (See page 48)

Group D: One of the following must be completed: (3 units)

One course which meets the VVC Humanities general education requirement for Category III (See page 48)

Group E: One of the following must be completed: (1 unit)

One Physical Education Course

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

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

Career Opportunities

The graduate is prepared to practice nursing at any entry level in the following settings:

Medical/Surgical Nursing
 Psychiatric Nursing
 Maternal/Newborn Nursing
 Post-Anesthesia Nursing
 Perioperative Nursing
 Geriatric Nursing
 Critical Care Nursing
 Rehabilitation Nursing
 Neurosurgical Nursing
 Oncology Nursing

Faculty

Full Time

Diane Cline
 Starlie Cuna
 Diego Garcia
 Renata Longoria
 Kay McKinley
 Alice Ramming
 Jeanine Speakman
 Yolanda Simental
 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

		74.0 units
		Units
<i>Group A: All of the following must be completed:</i>		
NURS 220	Pharmacology and Nursing Management	2.0
NURS 221	Nursing Process 1	10.0
NURS 222	Nursing Process 2	9.0
NURS 223	Nursing Process 3	9.0
NURS 224	Nursing Process 4	9.0
BIOL 211	Human Anatomy	5.0
OR		
BIOL 212	Human Anatomy	4.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	5.0
OR		
BIOL 232	Human Physiology	4.0
ENGL 101	English Composition and Reading	4.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
SOC 101	Introduction to Sociology	3.0

NURSING LICENSURE CERTIFICATE

		67 units
		Units
BIOL 211 or 212	Human Anatomy	4.0-5.0
BIOL 231 or 232	Human Physiology	4.0-5.0
BIOL 221	General Microbiology	5.0
SOC 101	Introduction to Sociology	3.0
PSYC 101	General Psychology	3.0
PSYC 110	Developmental Psychology	3.0
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

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.
- TRANSFER STUDENTS are those who transfer nursing units from another college.**
 The education code allows one to transfer only lower division units to a community college. Each student requesting transfer of Nursing units will be individually evaluated by the Nursing Program Admission, Promotion and Program Effectiveness (AEPE) Committee to determine appropriate placement in the VVC Program. Placement will be made on a space available basis and be determined by the 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.

3. **ADVANCED PLACEMENT STUDENTS (LVN to RN) are those documented as a Licensed Vocational Nurse in California.**

Students choosing this option must apply to the program, meet the prerequisites, and take the challenge exams for NURS 220 (Pharmacology and Nursing Management), NURS 221 (Nursing Process 1) and NURS 222 (Nursing Process 2). Advanced placement students must pass the challenge exams for NURS 221. Students are also required to pass (C or better) NURS 225 LVN to RN transition course. Placement into 2nd or 3rd semester is determined by student scores on the challenge exams. Depending on the number of applicants, acceptance into the transition course may be based on the program's entry policy (Nursing Student Handbook). Applications for this option are accepted in the spring and fall.

4. **CHALLENGE STUDENTS.**

Students admitted to the Nursing Program with previous documented experience may be allowed to challenge certain specified content areas. (Education Code, Section 5557537), Title 5 of the California Administrative Code. Refer to current college catalog.)

(Contact the Director of Nursing regarding this option.)

5. **THIRTY-UNIT OPTION**

is available to California Licensed Vocational Nurses. The Board of Registered Nursing regulation 1435.5 provides the option of completing 30 semester units in Nursing and related science courses. In order to enter this option the applicant must: 1) have a current California Vocational Nurse License (LVN); 2) have previously completed Human Physiology, 4 or 5 units with a lab, and Microbiology, 4 or 5 units with a lab. (Contact the Director of Nursing regarding this option.)

6. **NON-GRADUATE OPTION**

allows students to complete only those classes required to take the NCLEX exam. In the Victor Valley Community College Nursing Program those classes are:

BIOL 211, SOC 101, CMST 10 6, 107, 108, or 109

BIOL 231 or 232, PSYC 101, ENGL 101

BIOL 221, PSYC 110, NURS (5 classes)

Speech, GE Math and Logic/Critical Thinking must be completed prior to admission for new applicants.

2. Current RN licensure in the United States or equivalent or an RN interim permit.

California State University, San Bernardino

BSN program

1. Completion of an application to the university and nursing program
2. Attendance at a group advising session
3. Completion of the following prerequisites:
BIOL 211 or 212 + BIOL 231 or 232, BIOL 221, CHEM 100 OR H100, CHEM 207, MATH 105 or H105 or MATH 132, CMST 109, ENGL 101
One course from the following: PHIL 109, 207, ENGL 104
4. Additional support courses: PSYC 110
5. 3.0 GPA minimum
6. "C" or better on all course work

NURSING ASSISTANT

See Allied Health for certificate information.

PARALEGAL STUDIES

A paralegal works in a paraprofessional capacity as an assistant to an attorney in a private law firm, governmental agency industry, or private association. The paralegal performs many tasks normally handled by an attorney, such as preparing forms, writing memoranda, interviewing clients, researching legal matters, managing the law office, and a variety of other tasks. There are also self-employed paraprofessionals who work for attorneys on request.

The Paralegal Studies Certificate program at Victor Valley College is designed for students pursuing paraprofessional careers in the legal field. There are two types of such paraprofessionals.

Paralegal: Pursuant to California Assembly Bill 1761, a person may use the title "paralegal" only when they have obtained the required educational qualifications and they work directly under the supervision of a licensed California attorney.

Legal Document Assistant: Pursuant to California Senate Bill 1418, independent non-attorneys who provide law-related services to the public for compensation must register with the county clerk as a "Legal Document Assistant," and may not use the term "paralegal" in reference to themselves or their service. (For more information on the LDA registration process, contact the California Association of Legal Document Assistants at www.caip.org).

It is *strongly recommended* that students complete ENGL 101 and Political Science 1B before they begin taking paralegal courses so that they will have a firm foundation in writing skills and a basic understanding of the American legal system at the state and national levels of government. It is *further recommended* that students first complete (or at least concurrently enroll in) POLS 130, Introduction to Paralegalism, before continuing with other paralegal courses.

This is not a four-year transfer program, it is not transferable for advanced standing in a law school, and is not designed to be a "pre-law" program. The Paralegal Studies Certificate is not equivalent to a law school (J.D. degree) program, and thus, does not serve as a preparation for the bar exam. See a counselor for transfer requirements to other institutions.

For detailed information regarding the Victor Valley College, Associate Degree Nursing Program Placement/Advancement Policy, please refer to the current ADN Program Student Handbook.

Associate Degree

To earn an Associate in Science degree with a major in Nursing one must complete all certificate courses and meet all Victor Valley College graduation requirements. The Associate Degree Nursing Certificate includes all requirements for both a certificate and an Associate in Science degree in Nursing. The Nursing Licensure Certificate requires additional general education courses to complete an associate degree. The Nursing Licensure Certificate precludes receiving the Associate Degree in Science with a major in nursing.

Transfer

Acceptance into a baccalaureate of science degree in Nursing is based on completion of prerequisites and entrance requirements. To pursue a BSN complete the following requirements prior to transfer.

California State University, Dominguez Hills RN to BSN program

1. Minimum of 56 semester units of transferable college credit with a grade point average of at least 2.0 (C) or better in all transferable course work (non-residents, 2.4) and have satisfied any high school subject deficiency in English and mathematics by equivalent course work (the maximum transferable credit accepted from a two-year college is 70 semester units). English composition,

PARALEGAL STUDIES CERTIFICATE

Students must complete a minimum of 33 units, with at least 15 units taken in residence at Victor Valley College, with a minimum grade of "C" in all paralegal classes.

33 units

Group I—All of the following must be completed

		Units
POLS 130	Introduction to Paralegalism	3.0
POLS 131	Fundamentals of Litigation for Paralegals	3.0
POLS 132	Legal Research and Writing for Paralegals	3.0
POLS 133	Legal Ethics for Paralegals	3.0
POLS 134	Family Law For Paralegals	3.0
POLS 135	Tort Law for Paralegals	3.0
AJ 103	Criminal Law	3.0
BADM 117	Legal Environment of Business	3.0

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

		Units
AJ 102	Criminal Procedures	3.0
AJ 104	Legal Aspects of Evidence	3.0
BADM 101	Elementary Accounting	
OR 103	Principles of Accounting	3-4.0
BADM 111	Introduction to Public Administration	3.0
BADM 72	Internal Revenue Service Procedures and Taxpayer Bill of Rights	3.0
BRE 110	Legal Aspects of Real Estate I	3.0
BET 103A, 103B, 103C	Beginning Word Processing/Typing Word Perfect for Windows	3.0
OR		
BET 104A, 104B, 104C	Beginning Word Processing/Typing Word for Windows	3.0
ENGL 104	Critical Thinking and Composition	3.0
OR		
PHIL 109	Introduction to Logic	3.0
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, complete the following requirements prior to transfer if possible:

California State University, San Bernardino Criminal Justice major with a concentration in Paralegal Studies:

AJ 101,103, POLS 130, BADM 101 or 102
One course from the following: MATH 105, H105,132
CSU General Education-Breadth Requirements

PARAMEDIC

The paramedic is able to diagnose and treat medical emergencies and accident victims in the prehospital setting.

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

Career Opportunities

Paramedic

Faculty

Full Time

Brian Hendricksen
Scott Jones
Dave Oleson

Degrees and Certificates Awarded

Associate in Science, Paramedic
Paramedic Certificate

Certificate Programs

PARAMEDIC CERTIFICATE

This certificate prepares students to take the state examination to practice as a paramedic.

37.5 units

All of the following must be completed

		Units
ALDH 50	Paramedic Anatomy and Physiology	4.0
ALDH 51	Paramedic Introduction to EMS	1.0
ALDH 52	Paramedic Cardiology	4.0
ALDH 53	Paramedic Pharmacology	3.5
ALDH 54	Paramedic ACLS	1.0
ALDH 55	Paramedic EMS Theory	10.0
ALDH 56	Paramedic Clinical	3.0
ALDH 57	Paramedic Field Internship	11.0

Associate Degree

To earn an Associate in Science degree with a major in 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

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. For course descriptions see Section IX of this catalog.

Career Opportunities

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

Corporate Manager
Ethics Consultant
Lawyer
Management Trainer
Public Administrator
Religious Leader
Social Worker
Teacher
Writer

Faculty

Full Time

Marc Skuster
Emeritus
Milton Danielson

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

Transfer

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

California State University, San Bernardino

Philosophy major

One course from the following, if not already used to satisfy GE requirements: PHIL 101, 207, 108, 109, RLST 110, RLST 207, RLST 117/PHIL 117

CSU General Education-Breadth Requirements

University of California, Riverside

Philosophy major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

PHOTOGRAPHY

The study of photography offers a multitude of career possibilities. From fine art to commercial applications, photography is an exciting field that involves an education founded in conceptual as well as technical aspects. The development of the visual mind and a technical foundation in both traditional and digital imaging are the goals of the study of photography here at Victor Valley College. For course descriptions see Section IX of this catalog.

Career Opportunities

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

Faculty

Full Time

Frank Foster
Brent Wood

Degrees and Certificates Awarded

Associate in Arts, Fine Arts
Associate in Arts, Liberal Arts
Digital Photography Certificate

Certificate Program

DIGITAL PHOTOGRAPHY CERTIFICATE

Prepares the student for a variety of employment opportunities within the photographic field. This certificate also provides an opportunity for the student to continue on toward a more advanced certificate program. The student will be exposed to portrait, industrial, commercial, and architectural photography. An emphasis will be placed on learning Adobe Photoshop, digital cameras and digital output devices. The proper use of light will also be extensively covered. All camera formats will be covered.

17.0 units

All of the following must be completed:

		Units
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	Basic Photographic Lighting Techniques	3.0
PHOT 54	Portfolio Design	2.0

Associate Degree

No associate degree offered with a major in Photography. Photography courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHOT 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Photography is usually a concentration or option within an Art or Applied Art major at colleges within the University of California and California State University systems. Various private or independent colleges which focus specifically on the arts offer bachelor's degrees with a major in Photography or as a concentration or option within an Art or Applied Art major.

Because the major and the general education requirements vary in this major from university to university, students interested in photography should study the catalog of the specific university to which they plan to transfer.

The following is a sampling of colleges which offer Photography majors or Photography concentrations within Art or Applied Art majors:

Art Center College of Design, Pasadena
California College of Arts and Crafts, Oakland
California Institute of the Arts, Valencia
California State University
Fullerton
Hayward
Long Beach
San Jose
San Luis Obispo
Chapman University
University of California, Santa Cruz

PHYSICAL EDUCATION

Physical Education as an academic science emphasizes knowledge of the body through the study of kinesiology and exercise physiology. Physical Education also contributes to the intellectual, social, emotional, spiritual and physical growth and development of each student. Other areas of study in Physical education include: nutrition, healthy lifestyles, stress management as well as psychological aspects of physical activity and injury care and prevention. Additional specialties within the discipline of Physical Education which are more fully addressed in the curriculum at Victor Valley College are Dance and Adapted Physical Education. A variety of activities are offered, encouraging students to develop lifelong fitness activities and patterns for recreation.

Any of the physical education activity courses may be repeated up to three times, but not more than four units of physical education activity classes will be counted toward the Associate in Arts or Science Degrees.

With the exception of the Adapted courses, all physical education activity classes are intended for normal, healthy, individuals. It is highly recommended that anyone 35 years or older have a physical checkup before enrolling. A physical education course is required for the Associate degree. For course descriptions, see Section IX of this catalog.

UC maximum credit allowed for PE 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

13.0 units minimum

Group I - All of the following must be completed:

PE 103	History and Appreciation of Dance	Units 3.0
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Group II - 10 units of the following must be completed:

APE 164	Adapted Modern Dance	1.0
PEDA 160	Beginning Tap	1.0
OR TA 160		
PEDA 161	Intermediate Tap	1.0
OR TA 161		
PEDA 169	Alignment and Correctives I	1.0
PEDA 162	Ballroom Dance I	1.0
PEDA 163	Ballroom Dance II	1.0
PEDA 151	World Dance	2.0
OR ANTH 151		
PEDA 164	Creative Movement I	1.0
PEDA 165	Creative Movement II	1.0
PEDA 152	Dance Choreography I	2.0
PEDA 153	Dance Choreography II	2.0
PEDA 101	Dance Rhythmic Analysis	3.0
PEDA 166	Ballet I	1.0
OR TA 166		
PEDA 167	Ballet II	1.0
OR TA 167		
PEDA 266	Ballet III	1.0
OR TA 266		
PEDA 267	Ballet IV	1.0
OR TA 267		
PEDA 170	Jazz Dance I	1.0
OR TA 170		
PEDA 171	Jazz Dance II	1.0
OR TA 171		
PEDA 270	Jazz Dance III	1.0
OR TA 270		
PEDA 271	Jazz Dance IV	1.0
OR TA 271		
PEDA 174	Modern Dance I	1.0
OR TA 174		
PEDA 175	Modern Dance II	1.0
OR TA 175		
PEDA 274	Modern Dance III	1.0
OR TA 274		
PEDA 275	Modern Dance IV	1.0
OR TA 275		

Associate Degree

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

Transfer

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

California State University, San Bernardino

Kinesiology major

BIOL 211 or 212 + BIOL 231 or 232, PE 101
 CSU General Education-Breadth Requirements
 Select One: CHEM 100, H100, 201
 Select One: PHYS 100, 221, 201

Different concentrations within the Kinesiology major include Exercise Science, Pedagogy, and pre-physical therapy. For information about these options, see CSUSB's catalog (available in the Transfer Center), visit the website at www.csusb.edu, or visit www.assist.org.

Specialties in Exercise Physiology, Exercise Science, Fitness Training, and Sports Medicine are usually under the departments of Physical Education or Kinesiology at the four-year colleges. A major in Kinesiology may also lead to graduate programs in Physical Therapy at other institutions. See Sports Medicine under Medical and Health Professions for further information in these specific fields.

PHYSICAL SCIENCES

General Physical Sciences includes a number of scientific courses which often encompass a number of related disciplines. They are intended to serve as introductory level general education courses while also providing a basis for future, more advanced study in each of their respective fields.

Career Opportunities

(May require advanced degree)

Astronomer
Geologist
Meteorologist
Oceanographer

Degrees and Certificates Awarded

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

Certificate Program No certificates awarded.

Associate Degree

No associate degree offered with a major in Physical Sciences. Physical Science courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PSCI 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

University of California, Riverside Physical Sciences major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

Degrees and Certificates Awarded

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

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Physics. Physics courses may be used to fulfill requirements for an Associate in Science degree with a major in Math/Science. See Math/Science for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PHYS 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Physics major

CHEM 201, 202, MATH 226 + 227, 228, 231
PHYS 201 + 202 + 203 + H204
BS: Optional: Add CIS 201
CSU General Education-Breadth Requirements

University of California, Riverside

Physics major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. IGETC not recommended. However, students who have completed IGETC can apply courses to the UCR breadth pattern as appropriate, but additional breadth course work may be required.

POLITICAL SCIENCE

Political science is the study of political philosophies, processes, principles, and the structures of government and other political institutions. This academic discipline leads toward an understanding of the institutions of political ideologies, institutions of government, the roles of citizens and political leaders, interest groups and political parties, the electoral process, and contemporary issues that surround our public life. This field also includes an analysis of governments around the world and of international relations. For course descriptions, see Section IX of this catalog.

Career Opportunities

Attorney
Budget Analyst
Campaign Consultant/Staff Member
Educator
Foreign Diplomat/International Organization Worker
Government Official/Elected Official
Intelligence Officers & Analysts
Law Enforcement Officer
Legislative/Executive Staff Assistant
Lobbyist
National/International Business Position
Nonprofit Organization Staff Member
Print/Broadcast Journalist
Political Party Worker
Urban Planner/City Manager

PHYSICS

The study of physics involves trying to understand, at the most fundamental level, our observations of natural phenomena. Inquiries extend from the most minute of subatomic particles, to nuclei, atoms, molecules, solids, liquids, gases and plasmas, stars and galaxies. Physics seeks to explain how, under the influence of some fundamental forces, nature behaves as it does. In a larger sense it tries to address questions about our universe, such as: Where did we come from? What will be our ultimate fate?

The sequence of physics classes fills the lower division requirements for students who plan to major in fields such as physics, engineering or medicine. The classes will also fill general education requirements. For course descriptions, see Section IX of this catalog.

Career Opportunities

(May require advanced degree)

Engineer
Physicist
Teaching at many levels

Faculty

Full Time

Michael Butros

Faculty

Full Time

Dino Bozonelos
David Dupree

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

INTERNATIONAL STUDIES CERTIFICATE

15.0 – 17.0 units

Group I: All of the following must be completed:

		Units
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
		12.0

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 121	British History and Institutions	3.0
HIST 125	History of the Far East	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. POLS 130, 131, 132, 133, 134, 135 (Paralegal courses) may be used as Electives and may not be used to fulfill major requirements for any degree at this time. See Liberal Arts for degree requirements for Liberal Arts major.

Transfer

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

California State University, San Bernardino

Political Science major

POLS 101, 102, 110

CSU General Education-Breadth Requirements

Note: CSU, San Bernardino also offers German.

CSU General Education-Breadth Requirements

University of California, Riverside

Political Science major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for more information at (909) 787-4531.

Completion of IGETC recommended.

PSYCHOLOGY

Psychology is a behavioral science which has as its goals to describe, understand, explain, predict and influence behavior and mental processes. Graduates in psychology—bachelor's degree and post-graduate study required—are employed in a number of areas, including teaching, research, and practice. Some of the major sub-fields in psychology are clinical, counseling, developmental, educational, environmental, health, industrial/organizational, neuroscience, physiological, quantitative (math, psychometrics, statistics), school, and social psychology. For course descriptions, see Section IX of this catalog.

Career Opportunities

Advertising Executive
Industrial/Organizational Psychologist
Marriage, Family and Child Counselor
Mental Health Officer
Personnel Analyst
Probation Officer
Psychologist
Psychometrist
Rehabilitation Counselor
School Counselor
School Psychologist

Faculty

Full Time

Patricia Jennings
Jim Previte
Milt Danielson, Emeritus
Jennie Lackey, Emeritus

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded^o. See Alcohol and Drug Studies for certificates offered at surrounding community colleges.

Associate Degree

No associate degree offered with a major in Psychology. Psychology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. PSYC 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Psychology major

PSYC 101, ENGL 101

MATH 120, H120

CSU General Education-Breadth Requirements

University of California, Riverside

Psychology major and Psychobiology major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

Chapman University, Victorville

Psychology major

(See Table 5 in Section VII of this catalog.)

RELIGIOUS STUDIES

The academic study of religion is an objective, factual study of the texts, symbols, myths, rituals, ideas, and values of the world's many religious traditions. Students are encouraged to view religion multiculturally as a means of understanding more deeply the spiritual dimensions of human nature, history, and society. Study in this field prepares students for life in a multicultural society and provides practice in such valuable skills as empathetic reading and listening, critical reflection, and descriptive and analytical writing. For course descriptions, see Section IX of this catalog.

Career Opportunities

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

Chaplain
Counselor
Government Service
Nonprofit Management
Professional Religious Leader
Religious Broadcaster
Religious Business Manager
Religious Educator
Religious Journalist
Religion Publisher
Social Worker
Teacher

Faculty

Full Time

Marc Skuster
Milt Danielson, Emeritus

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

Transfer

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

University of California, Riverside

Religious Studies major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

RESPIRATORY THERAPY

Respiratory therapy is an allied health profession specializing in the diagnosis, treatment, and care of patients suffering from cardiopulmonary disease.

The program provides didactic instruction and supervised clinical practice in Inland Empire hospitals. Graduates of the VVC Respiratory Therapy Program, as a result of the education and training they receive, pass the state licensing and national registry exams at a rate

much greater than the national average. The Victor Valley College Respiratory Therapy Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation for Respiratory Care (CoARC), Commission on Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756. 727-210-2350. For course descriptions, see Section IX of this catalog.

Separate application must be made to the Respiratory Therapy Program. Seating is limited to a maximum of twenty-five students per class.

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

Career Opportunities

Respiratory Care Practitioner
Critical Care Specialist
Diagnostic Testing Specialist
Education
Home Care
Neonatal/Pediatric Specialist
Pulmonary Rehabilitation
Research

Faculty

Full Time

Traci Marin
Russell McCord

Degrees and Certificates Awarded

Associate in Science, Respiratory Therapy
Respiratory Therapy Certificate

Certificate Program

RESPIRATORY THERAPY (A.S. AND CERTIFICATE)

This certificate prepares the student to take the State examination to practice as an entry level practitioner and the National Examination for Advanced level practitioner.

78.0 units minimum

Group A: All of the following must be completed:

		Units
RSPT 230	Introduction to Respiratory Therapy	3.0
RSPT 231	Orientation to and Basic Fundamentals of Respiratory Therapy	10.0
RSPT 232	Patient Assessment and Clinical Application of Respiratory Care	10.0
RSPT 233	Intensive Respiratory Care and Advanced Pulmonary Physiology	13.0
RSPT 234	Neonatal and Pediatric Respiratory Care and Pathophysiology and Pulmonary Rehabilitation	13.0
RSPT 239	Introduction to Continuous Mechanical Ventilatory Support	2.0
BIOL 211	Human Anatomy	5.0
OR		
BIOL 212	Human Anatomy	4.0
BIOL 221	General Microbiology	5.0
BIOL 231	Human Physiology	4.0
OR		
BIOL 232	Human Physiology	5.0
ENGL 101	English Composition and Reading	3.0
PSYC 101	General Psychology	3.0

RESTAURANT MANAGEMENT

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:

One course which meets the VVC Logic/Mathematical general education requirements for Category V (See page 48)

Group D: One of the following must be completed:

One course which meets the VVC Humanities general education requirements for Category III (See page 48)

Group E: One of the following must be completed:

One Physical Education Course

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

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

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

The respiratory therapy graduate receives the Associate of Science Degree and is eligible to take the National Registry Exam for Respiratory Therapists and the entry level exam for licensure in the State of California.

In order to be admitted to the Respiratory Therapy Program, separate application must be made in addition to application to the college. The annual deadline date for submitting applications to be considered for respiratory therapy is March 15. Applications can be obtained through the Allied Health Office or the Counseling Department. Prerequisites: CHEM 100, BIOL 100 or 107, and MATH 50 must be completed with a grade of "C" or higher before entry into the program.

Associate Degree

To earn an Associate in Science degree with a major in Respiratory Therapy, complete all requirements for the Respiratory Therapy Certificate. The Respiratory Therapy Certificate above includes all requirements for both a certificate and an Associate in Science degree in Respiratory Therapy.

Transfer

Most Respiratory Therapy courses do not transfer. Two universities offer a bachelor's degree in Respiratory Therapy: California College for Health Sciences, National City, Loma Linda University

Students in this field may choose to pursue a bachelor's degree in Health Care Services, Respiratory Therapy, or related majors from Loma Linda University or other universities. An articulation agreement is in existence. Selected courses can be transferred to California State University, San Bernardino.

A handout with all transfer requirements for a B.S. degree in Health Care Services, Respiratory Therapy, and other related medical degrees from Loma Linda University is available in the Counseling Department.

The Restaurant Management program prepares students for careers in the food service industry. Due to an increasing demand, the opportunities in this field are vast and varied. Restaurants, hotels, clubs, colleges, retirement homes, hospitals, and industrial food service are but a few of the areas of employment available. Basic food preparation and techniques, nutrition, sanitation and safety are taught as the fundamentals for an educational foundation of more specialized and advanced skills. Creativity, innovation, and team concepts are encouraged. Skills are learned by emphasizing hands-on, practical experience coupled with strong managerial and accounting subjects, making graduates well qualified for employment. For course descriptions, see Section IX of this catalog.

Career Opportunities

Assistant Manager
Banquet Manager
Catering Manager
Chef
Dietary Assistant
Dining Room Manager
Food and Beverage Director
Foodservice/Restaurant Manager
Kitchen Manager
Purchasing Agent

Faculty

Emeritus
Duane Buckles

Degrees and Certificates Awarded

Associate in Science, Restaurant Management
Restaurant Management Certificate

Certificate Program

RESTAURANT MANAGEMENT CERTIFICATE

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

51.0 units

All of the following must be completed:

First Semester: Units

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
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**Plus two academics offered on a rotating basis, see list below

Third Semester:

RMGT 84	Kitchen/Dining Room Management	6.0
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**Plus two academics offered on a rotating basis, see list below

Fourth Semester:

RMGT 85	Advanced Restaurant Management	6.0
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**Plus two academics offered on a rotating basis, see list below

**** Rotating Academic List**

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
RMGT 120	Nutrition	
Or		
CHEM 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

Victor Valley College Restaurant Management courses do not usually transfer toward a bachelor's degree program. Students who earn a certificate or degree in Restaurant Management may choose to pursue a bachelor's degree in Hospitality Management or Hotel and Restaurant Management. The following universities offer degrees in these areas:

CSU-Long Beach, Pomona, San Francisco and San Jose.

Refer to ASSIST, at www.assist.org for major preparation requirements.

Students interested in pursuing a bachelor's degree in one of these majors will be required to complete lower division major requirements and general education requirements before transferring. See counselor for transfer requirements for major at specific universities.

Some students who earn a certificate or degree in Restaurant Management from Victor Valley College may choose to pursue a further degree from California Culinary Academy in San Francisco or The Culinary Institute of America in New York which also has a Napa Valley campus in St. Helena, California. These colleges specialize in preparing a student to become a chef.

SOCIAL SCIENCES

Transfer

To pursue a bachelor's degree that leads to a social science teaching credential at the secondary level, students must contact the specific university campus for detailed major preparation requirements, or go to www.assist.org.

California State University, San Bernardino

Refer to the Social Science teaching credential option listed in CSU-SB's Catalog, or visit www.assist.org.

University of California, Riverside

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. Completion of IGETC recommended.

Chapman University, Victorville Social Science major

(See **Table 5** in Section VII of this catalog.)

SOCIOLOGY

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

Career Opportunities

(Bachelor's or advanced degree usually necessary.)

Claims Examiner
Criminologist
Educator
Employment/Personnel Specialist
Interviewer/Researcher
Law Enforcement/Probation or Corrections Officer
Public Relations Consultant
Social Worker/Counselor
Statistician/Population Analyst
Urban Planning Consultant
Youth Counselor/Recreation Specialist

Faculty

Full Time
Gene Tashima

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Sociology. Sociology courses may be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. SOC 138 (Cooperative Education) may be used for Elective credit, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino Sociology major

SOC 101
CSU General Education-Breadth Requirements

California State University, San Bernardino Human Services major

PSYC 101, 110, SOC 101
CSU General Education-Breadth Requirements

University of California, Riverside Sociology major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531. Completion of IGETC recommended.

Chapman University, Victorville Sociology major

(See **Table 5** in Section VII of this catalog.)

SPANISH

The study of Spanish has as its goals to explain, evaluate and communicate ideas and concepts by means of reading, writing and verbal processes through creative use of words (literature) and culture (civilization). This study affords insight into foreign attitudes and methods and encourages free communication, written and oral, among people.

Career Opportunities

Advertising
Business
Education
Government
Health Service
Journalism
Law Enforcement
Publishing
Social Work
Translating

Faculty

Full Time

Cuauhtemoc Franco
Dolores Hinson
Martha Vila

Degrees and Certificates Awarded

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

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

Transfer

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

California State University, San Bernardino

Spanish major

SPAN 103, 104

Business Track: Add BADM 101 or 103, CIS 101

CSU General Education-Breadth Requirements

University of California, Riverside

Spanish major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

SPEECH 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. For course descriptions, see Section IX of this catalog.

Career Opportunities

Actor/Actress
Choreographer
Costumer
Makeup Artist
Publicist
Scene Designer
Screenwriter
Sound Technician
Stage Director
Teacher

Faculty

Full Time

Ed Heaberlin
Steve McDevitt
John Rude
Theresa Mirci-Smith
Polly Fitch, Emeritus

Degrees and Certificates Awarded

Associate in Arts, Fine Arts

Associate in Arts, Liberal Arts

Certificate Program

No certificates awarded.

Associate Degree

No associate degree offered with a major in Theatre Arts. Theatre Arts courses may be used to fulfill requirements for an Associate in Arts degree with a major in Fine Arts. See Fine Arts for degree requirements for this major. Courses may also be used to fulfill requirements for an Associate in Arts degree with a major in Liberal Arts. See Liberal Arts for degree requirements for this major. TA 138 (Cooperative Education) may be used as Elective credits, but may not be used to fulfill major requirements.

Transfer

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

California State University, San Bernardino

Theatre Arts major

TA 106, 107, 110

Three courses from the following: 113, 115, 117, 120

CSU General Education-Breadth Requirements

There are several different concentrations to choose from in this major. Please refer to CSUSB's catalog, visit them online at www.csusb.edu, and check at www.assist.org.

University of California, Riverside

Theatre Arts major

Refer to the major preparation agreements on ASSIST, at www.assist.org. Students can also contact a UCR transfer outreach counselor for information at (909) 787-4531.

Completion of IGETC recommended.

VISUAL COMMUNICATION

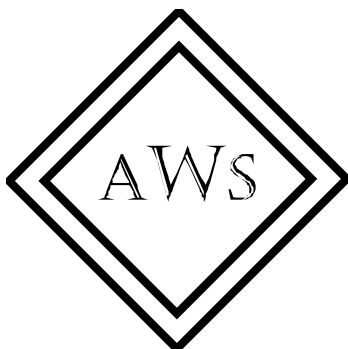
See “Computer Integrated Design and Graphics.”

WELDING

This program prepares students to enter welding-related occupations, offers retraining for those seeking a new career, and provides an opportunity for those employed in welding occupations to learn new skills and upgrade themselves in their positions.

The department is a member of the American Welding Society's Educational Institution Program for entry level welders and is entitled to all the privileges. This entry level welder program is part of the National Skills Standards Program, which is being enacted across a wide range of industries in the United States.

The program prepares students to pass the written test and welding performance test necessary to acquire a welding license from the Los Angeles Department of Building and Safety. The program offers a certificate of achievement in welding, and an associate degree may be obtained upon completion of 18 units of welding course work in addition to general education. For course descriptions, see Section IX of this catalog.



Educational Institution Member

Career Opportunities

Boilermakers
Iron Workers
Maintenance Worker
Millwrights
Sheet Metal Workers
Welder
Welder-Fitter
Welding Estimator
Welding Inspector
Welding Instructor
Welding Operator
Welding Sales Representative
Welding Service Representative
Welding Supervisor
Welding Technician

Faculty

Full Time

Gary Menser

Degrees and Certificates Awarded

Associate in Science, Welding
Welding Certificate

Certificate Program

WELDING CERTIFICATE

The Welding Technology courses included in the certificate program will give the students the skills necessary to become an entry-level combination welder.

19.0 units

All of the following must be completed:

		Units
WELD 51	Oxyacetylene Welding, Cutting, and Brazing	3.0
WELD 52	Shielded Metal Arc Welding-Basic	3.0
WELD 53	Shielded Metal Arc Welding-Advanced	4.0
WELD 57A	Gas Tungsten Arc Welding-Basic	2.0
WELD 57B	Gas Tungsten Arc Welding-Advanced	2.0
WELD 58A	Gas Metal Arc Welding-Basic	2.0
WELD 58B	Gas Metal Arc Welding-Advanced	2.0
WELD 59	Welding Symbols and Blueprint Reading	1.0

Associate Degree

To earn an Associate in Science degree with a major in Welding, complete 18 units from Welding courses and meet all Victor Valley College graduation requirements. WELD 138 (Cooperative Education) may be used as Elective credit, but may not be used to fulfill major requirements.

Transfer

Not a transfer major.

