

# Crafton Hills College

2003-2004 Catalog

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# Crafton Hills College

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A Public Community College in California



CraftonHills  
COLLEGE

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## CATALOG 2003 - 2004

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The purpose of this catalog is to provide information about Crafton Hills College, its philosophy, objectives, programs and course descriptions. While every reasonable effort has been made to ensure its accuracy, the catalog should not be considered an irrevocable contract between the student and the college.

The catalog is produced by the Office of Instruction in conjunction with Student Services and the Marketing and Public Relations Office.

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# San Bernardino Community College District

## Crafton Hills College Administration

Gloria Macías Harrison, M.A. ....	President
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Patrick Fite, B.A. ....	Director, Marketing and Public Relations
Virginia R. Moran, M.A. ....	Director, Research and Planning
John Muskavitch, B.S. ....	Director, Financial Aid
To be announced. ....	Director, Admissions and Records

## District Administration

Donald Averill, Ed.D. ....	Chancellor
Robert J. Temple, M.A. ....	Vice Chancellor, Fiscal Services
Charles L. Whiteside, M.A. ....	Vice Chancellor, Human Resources & Employee Relations
Vacant. ....	Director, Facilities and Planning
Raymond G. Eberhard, M.A. ....	Business Manager
Frank G. Reyes, M.A. ....	Assistant to the Chancellor/Governmental Affairs
Glen Kuck, M.A. ....	Director of Distributed Education
Vacant ....	Director/Manager, Radio & T.V. Stations
Linda L. Millner, M.A. ....	Interim Director of Human Resources
David P. Harris, Ph.D. ....	Chief Information Services Officer
Ron Keith, M.S. ....	Director, Computing Services
Donna Hoffman, M.A. ....	District Director of Marketing and Public Relations

## Board of Trustees

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Dalton Higinio ....	Student Trustee, SBVC

# Crafton Hills College Foundation

The Crafton Hills College Foundation is a tax-exempt organization established to receive gifts of both real and personal property as a basis for extending educational opportunities to students via scholarships, grants, loans, and other types of assistance.

## Board of Directors

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Past President .....	Richard Booth
Treasurer .....	Frances White
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## Classified Senate Officers

President .....	Frances Southerland
Vice President .....	Sue Breazile
Treasurer .....	Carlos Maldonado
Interim Secretary .....	Frances Southerland
Senators .....	Kelly Bingham, John Napolitano, Kathi Labagnara, Stacey Garcia, Debi Kelley, Gwenn Steward

## Dear Student:

Crafton Hills College is dedicated to providing access to higher education and training for the advancement of our community. Our solid and unwavering commitment is to provide quality service and excellence in educational and training programs. We prepare students to meet their full potential and to become leaders and productive citizens in our community.



The college offers more than 53 majors in 38 degree programs and 15 occupational certification plans. An excellent faculty supports the instructional programs and provides an outstanding learning environment. An expanded Learning Center that includes both a writing and a math center provides academic support and tutorial services. In addition, students receive support services within the areas of Counseling, Financial Aid, Extended Opportunity Programs and Services (EOPS), Career Center, Transfer Center, Disabled Student Programs and Services (DSPS), Health Services, Workforce Readiness Training, and Admissions and Records. Opportunities for co-curricular activities are available through student government, campus clubs, and organizations.

For more than three decades, the transfer program has prepared students well for the four-year colleges and universities. The number of graduates receiving two-year Associate in Arts or Associate in Science degrees has increased by more than 1,000 percent since 1972. Our occupational education programs, such as Radiologic Technology, Respiratory Therapy, Emergency Medical Services, and Computer Information Systems, have become cutting-edge programs in high technology and are preparing students for the challenges of the future. Our Fire Technology and Paramedic programs have earned regional and national recognition and are heavily subscribed. Cultural enrichment programs such as the annual Native American Gathering Pow-Wow and the annual CHC Baroque Festival have become mainstays of the College and of the community at large.

The last few years have been especially exciting and gratifying as the campus accomplishes its planning goals. The college continues to implement its High Technology Plan so the college is at the cutting edge of computer technology. The Child Development Center reopened as a college run operation that is integrated with the college's Early Childhood Development and Teacher Education programs. We have completed the centralization and remodeling of student services so that students may receive services more efficiently. Last fall, a new bookstore and classroom facility was completed on the east end of the campus. The new facility tripled the size of the bookstore and provided four large classrooms to accommodate more students.

In the next few years, Crafton Hills College, in conjunction with its county and city partners, will continue its efforts to start construction of a San Bernardino Regional Emergency Training Center at the International Airport site. Additionally, Crafton Hills College is working with its partners in K-12 and Higher Education to increase communication and facilitate access to educational and training opportunities for the citizens of the Inland Empire.

Crafton Hills College acknowledges the commitment, dedication, and hard work of the faculty, staff, and administrators who have contributed so much to the college's mission.

We are proud that more than 90,000 students in the past and 5,300 current students have chosen the College as the place to pursue their dreams.

Sincerely,

A handwritten signature in cursive script that reads "Gloria M. Harrison".

Gloria Macias Harrison  
President



achievement

# SECTION I

## General Information

### About the College

Crafton Hills College (CHC) is one of 108 campuses in the California Community College system, the largest college system of higher education in the world. Since its opening in 1972, learners of all ages, interests and backgrounds have passed through the doors of CHC, taking advantage of this first step to higher learning. As new businesses and industries settle in this region, CHC continues to increase in importance as a source for a college education and career training. Crafton Hills currently serves approximately 5,300 students and offers both day and evening classes. CHC is accredited by The Western Association of Schools and Colleges, the accrediting body for California and the Western Pacific.

Located on rolling hills above the Yucaipa Valley and surrounded by an undisturbed natural environment, Crafton Hills offers more than 50 majors in the liberal arts and sciences, vocations and technical studies. With its imaginative architecture, manicured grounds and spectacular surroundings, the atmosphere of the college is one of serenity -- right for reflection, growth and learning.

What sets the campus apart from many others is that, in addition to quality instruction, many of the professors are experts in their field outside the classroom. Also, the small size of the college allows for much more one-on-one communication between instructors and students. CHC instructors are noted for being accessible and caring about the students as individuals. Whether you're a new student just getting started at college, or you're returning to college after having been out of school for a while, CHC has an experienced and caring counseling staff to help you. No matter what your age, it is never too late to go to college. The counselors are available for consultation throughout your college experience here. At CHC, there is still that personal touch.

Besides counseling, there are many other student services available to help you achieve your higher education goals. These include Financial Aid, Extended Opportunity Programs and Services, Career Center and Job Placement Office, Disabled Student Services, Workforce Training, and more. You can find information about these and other student services in this catalog. Counselors can answer questions about these services and refer you to the respective offices.

CHC has a Child Development Center for CHC students who need child care services while attending school. The CHC Child Development Center is operated by the college and cares for children from infancy through 5 years of age. It also has a preschool. The Center and the Child Development Program function collaboratively to provide the best education possible for the children and our child development students.

An important priority at the campus is technology. Last year, CHC installed 100 new Intel Pentium 4 computers in two classrooms, paving the way for new computer courses and giving students access to the latest in computer technology and software. During the past seven years, the college has purchased more than 900 new computers and state-of-the-art software for classrooms and college-wide computer labs. These computers bring CHC to the top of technology in the classroom. CHC offers a wide range of computer classes, including beginning classes.

In addition to student-centered classes and an able counseling and career guidance staff, CHC provides a variety of cultural, social and recreational opportunities. Each year, the college presents its Annual Baroque Festival, which features the art, music, dance and history of the world during the era of the Baroque. CHC also has a highly regarded Theatre Arts Department, which is renowned for its excellent productions of award-winning Broadway plays, musicals, and the classics. Students have extra-curricular opportunities to explore their interests in clubs, student government and educational field trips to various locations in the world. For recreational activities, the college's P.E. Department oversees a six-hole golf course, outstanding gym facilities, and tennis courts.

Above all, CHC is a place for learning and personal growth. It has established a reputation for quality and a willingness to respond quickly and reasonably to community needs.

CHC operates on the semester system. Fall semester begins in August, spring term starts in January, and summer session opens in June.

## BACKGROUND

Crafton Hills College is one of two public community colleges serving the San Bernardino Community College District. The other is San Bernardino Valley College. Both are tax-supported, co-educational institutions governed by a locally elected board of trustees acting through a district chancellor and the president of each college.

In the fall of 1972, classes were held for the first time at Crafton Hills College. The campus buildings and grounds provide an environment essential to support a comprehensive community college.

The areas from which the College generally attracts students include Bear Valley, Colton, Redlands, Rialto, Rim of the World, San Bernardino, and Yucaipa. However, students also come from all over California, out-of-state, and foreign countries. The students are as diverse as the areas they represent.

Some students come to the College directly from high school and pursue full-time transfer or occupational programs. Others study part time to prepare for return to work or to improve their chances for advancement. Some arrive with superior academic backgrounds, some in need of considerable remedial aid. The average age is twenty-seven. More than half the students are females. Some students stay to complete a program; others prepare for eventual transfer to four-year colleges and universities or directly enter the workplace.

Students choose Crafton Hills College because of its setting, its dedicated faculty, its interesting courses, and its variety of educational opportunities.

## MISSION STATEMENT

In a serene, welcoming environment, Crafton Hills College promotes learning through self-discovery and the acquisition and application of knowledge and skills.

This mission is carried out in a dynamic educational community that encourages intellectual curiosity and fosters an openness to a wide range of people and ideas.

## OBJECTIVES AND FUNCTIONS

The principal objective of Crafton Hills College is to facilitate students' learning so they can attain realistic goals commensurate with their needs and abilities. The primary means for achieving this goal is the educational program of the College; all other functions of the college are justified insofar as they support learning. While the result of some learning is intangible, most learning is indicated by a change in the attitude and behavior of the learner. Some changes represent new departures for the student; others are simply further refinements and developments of skills, viewpoints, and knowledge.

The College provides a variety of courses and programs designed to reach the institution's basic goal. As students pursue their programs of study, they should strive toward an understanding of their scientific and cultural heritage; the ability to define and solve problems on the basis of relevant facts and reasonable alternatives; the identification of a preferred pattern of living and a means of achieving it; occupational and professional proficiency; mental and physical health; the ability to interact effectively with other

people intellectually, socially, and physically; the acceptance of responsibility; and an awareness of the usefulness and desirability of further learning.

In pursuit of the goals stated above, the College offers course work and assistance to students in the following broad areas:

1. Lower division curricula for transfer to senior colleges and universities, applicable to the baccalaureate degree;
2. Occupational programs for entry into specific vocations and further training for increased occupational effectiveness while pursuing a vocation;
3. General education that provides a fundamental learning foundation and stimulates intellectual curiosity;
4. Continuing education for citizens in the community who may desire further preparation in general education or in a vocational field;
5. Programs in basic skills for increased effectiveness in pursuing the basic objectives of the College;
6. Advising and counseling for educational, occupational, and personal planning.

# Admissions Procedures

## ELIGIBILITY

Admission to Crafton Hills College is open to you if you meet any one of the following requirements:

1. Are eighteen years of age or older and can benefit from instruction offered by the College.
2. Are a high school graduate.
3. Have a G.E.D. (General Education Development) Certificate.
4. Have a California High School Proficiency Certificate.

## PRE-ENROLLMENT ASSESSMENT

Every new student is strongly encouraged to participate in the assessment process. This process is designed to assist students in choosing the correct classes. The assessment process is required to determine placement in English and mathematics classes at Crafton Hills College. The assessment instrument is a multiple-choice instrument covering reading comprehension, sentence skills, arithmetic and elementary algebra. Preparation is not needed for the test since it is designed to measure your current skills in each area.

Assessment is provided on a drop-in basis.

Plan on two hours to complete the assessment process.

For questions you may contact the assessment center at (909) 389-3361 or email at [testcenter@craftonhills.edu](mailto:testcenter@craftonhills.edu)

**NOTE:** As a new student, you may obtain an assessment waiver if you fall into one of the following categories:

1. You have completed an Associate of Arts or Sciences degree or higher. (Provide Transcript)
2. You have completed 30 or more semester units of college work at another college or university. (Provide Transcript)
3. You have completed pre-requisite courses with a grade of "C" or better. If you have not completed pre-requisite courses in both mathematics and English, you must take the assessment in the area not met. (Provide Transcript)
4. You have scored 3 or higher on the Advanced Placement Test (College Board) in English and/or mathematics. (Provide Transcript)
5. You are only enrolling in courses at Crafton Hills College to maintain certificate or license requirements.
6. You are only enrolling in 6 units or less of courses for personal enrichment (e.g., PE, Music, Art) up to a cumulative total of 12 units (once you have reached 12 units of course work you will be required to participate in the assessment process).
7. You have taken a placement exam at one of the other San Bernardino or Riverside County community colleges or you have taken the Accuplacer Assessment Test at another college in the last two years and you provide scores and placement recommendations from the other college.

## NEW STUDENTS

1. Fill out an application (inside schedule) or online at [www.craftonhills.edu](http://www.craftonhills.edu) and (a) take it to the Admissions Office in the Student Services Administration Building (SSA), room 213, or (b) mail it to the address on the application. If you complete the application online or if you mail it you will need to visit the Admissions office to complete your residency verification.
2. Have your official high school/college/university transcripts sent to the Admissions Office at Crafton Hills College. You can request the transcripts from the records office at your high school or the college/university that you previously attended. You may want to request an additional copy for your records at the same time.

## HIGH SCHOOL STUDENT SPECIAL ATTENDANCE POLICY AND PROCEDURES

Crafton Hills College may admit high school students who are capable of profiting from college courses.

### To be eligible:

- 1) The student must take advanced scholastic or vocational course(s).
- 2) The student must have a Grade Point Average (G.P.A.) of 3.0 or better.

*\*Exceptions to this criteria may be considered for high school students requesting to enroll in articulated vocational education programs at Crafton Hills College. Petitions requesting this exception must be accompanied by a letter of recommendation from the high school counselor.*

### To Petition for Special Attendance, students must submit:

1. A completed Crafton Hills College Application for each term requested.
2. A completed Special Attendance form (available from high school counselor), signed by a high school counselor and parent/guardian of the student for each term requested.
3. Official High School transcripts (delivered in a sealed envelope).
4. **All documentation must be submitted to the Admissions and Office no later than 3:00 p.m. the Friday before Arena Registration (refer to Class Schedule for Arena Registration dates).**

High school students approved for Special Attendance may register in transfer courses (course numbers 100-299) during open WEB/Telephone registration (Please refer to class schedule for dates). The WEB address is [www.craftonhills.edu](http://www.craftonhills.edu), ETR phone is (909) 884-1441.

**Courses taken must not duplicate courses currently available in the high schools and may be taken for college credit only.**

Requested college course loads will be reviewed and approved on an individual basis by the CHC Petitions Committee. Registration Appointments will be given upon approval of petition.

## TRANSFER STUDENTS

Students who transfer from other accredited colleges and want credit for courses taken there must submit official transcripts to the Admissions and Records Office at Crafton Hills College. Transcripts will be evaluated by the Counseling Department and College Registrar according to the scholastic standards policy of the San Bernardino Community College District.

## CALIFORNIA RESIDENCY

A District residence, non-District residence, or non-residence classification shall be determined for each student at the time an application for admission is accepted and whenever a student has not been in attendance for more than one semester. The residence determination date is that day immediately preceding the first day of instruction for the semester, or other session as set by the Board of Trustees. A student previously classified as a nonresident may be re-classified as of any residence determination date.

## DETERMINATION OF RESIDENCE

- A. Adults — every person who is married or who is 18 years of age or older on the residence determination date may determine his or her own residence.
- B. Minors — those persons under 18 years of age may establish residence in accordance with the following:
  1. Married minors may establish their own residence.
  2. If the parents are separated permanently, the residence of the minor is the residence of the parent with whom he/she lives.
  3. If both parents are deceased, and there is no court-appointed guardian, the minor may establish his/her own residence.

4. A student who remains in the state after his/her parents, who had legal residence in California, have established residence elsewhere, shall be entitled to retain resident classification until he/she has attained the age of majority and has resided in the state the minimum time necessary to become a resident so long as continuous attendance is maintained at the institution.
5. A student may combine his/her time as a resident minor with his/her time as a resident adult to establish the one year necessary for California resident classification.

#### REQUIRED DOCUMENTS FOR RESIDENCE DETERMINATION

Students shall be required to present evidence of physical presence in California and intent to make California their home for other than a temporary purpose. To accomplish this, the following individual information may be used to establish personal identification and intent to be a California resident at the time applications are accepted:

1. California Driver's license, current and valid.
2. Voter registration receipt.
3. Evidence of submitting California income tax forms.
4. California bank statements (checking and/or savings).
5. Rent or lease receipts for the past six months.
6. Immigration and Naturalization Service "green card" or Immigration and Naturalization I-94 in passport.
7. High school or other college transcripts/grade forms.
8. Military service orders for active military personnel.
9. Military dependents — complete the California Residence Classification for Active Military Personnel form (attached to the application).
10. Federal income tax forms with California as the home address.
11. Licensing from California for professional practice.
12. Active membership in service or social clubs.

#### EXCEPTIONS TO RESIDENCE DETERMINATION

- A. A student who is a member of the Armed Forces on active duty in this state shall be entitled to residency status.
- B. A student who is a natural or adopted child, stepchild or spouse and who is a dependent of a member of the armed forces of the United States stationed in this state on active duty shall be entitled to resident status until the student has resided in the state the minimum time necessary to become a resident, as long as continuous attendance is maintained at an institution. Should the member of the armed forces of the United States be thereafter transferred on military orders directly to a place outside the United States, where the member continues to serve in the armed forces of the United States, the student shall not lose the resident status until he/she has resided in the state the minimum time necessary to become a resident, as long as continuous attendance is maintained at an institution.
- C. A student who is an adult alien will be entitled to resident status if lawfully admitted to the United States for permanent residence in accordance with all applicable laws of the United States provided that he/she has had residence in the

state for more than one year after such admission prior to the residence determination date for the term for which he or she proposed to attend an institution.

- D. A student who is a minor alien will be entitled to resident status if both he/she and his/her parents have been lawfully admitted to the United States for permanent residence in accordance with all applicable laws of the United States, provided the parent has had residence in the state for more than one year after such admission, prior to the residence determination date for the term for which he or she proposes to attend an institution.
- E. A student who is an apprentice, as defined in Section 3077 of the Labor Code, will be entitled to resident status for school attendance.
- F. A student holding a valid credential authorizing service in a public school and employed in a certificated full-time position by a community college district will be given resident status.
- G. A student who is a full-time employee of an educational institution of higher learning, or whose parent or spouse is a full-time employee, will be entitled to resident status until he/she has resided in the state the minimum time necessary to become a resident.
- H. A student who (1) has not been an adult resident of California for more than one year and (2) is the dependent child of a California resident who has had residence in California for more than one year prior to the residence determination date shall be entitled to resident status. This exception shall continue until the student has resided in the state the minimum time necessary to become a resident, as long as continuous attendance is maintained at an institution. (ECS 68076)

#### RESIDENT STATUS APPEAL

Any student, following a decision on residence status by the college, may make written appeal to the Admissions Office within fourteen calendar days.

#### COSTS

See class schedule for fees and other costs. People who are not legal residents of California must pay the current non-resident tuition fees.

#### NO ONE FACTOR IS DECISIVE

Intent to become a resident may be determined by complying with at least two of the conditions listed above. Physical presence within the state solely for educational purposes does not constitute establishing California residence, regardless of the length of that presence. The one-year residence period which a person must meet to be classified as a resident does not begin until the person is both present in California and has manifested clear intent to become a California resident.

## INTERNATIONAL STUDENTS

Crafton Hills College is approved by the Immigration and Naturalization Service to admit non-immigrant F-1 Visa international students. The number of such students permitted to enroll may be limited at the discretion of the President of the College.

In order to be considered for admission, all applicable materials must be submitted by the following deadlines:

May 1	for Fall Semester
November 1	for Spring Semester
March 15	for Summer Session

## REQUIRED MATERIALS:

### 1. A completed application form.

Note: An application form may be obtained by writing to  
Admissions and Records Office  
Crafton Hills College  
11711 Sand Canyon Road  
Yucaipa, California 92399 U.S.A.

### 2. Test of English as a Foreign Language (TOEFL) Test Score (not required of students from a country where the native language is English). A minimum score of 500 is required. Note: Copies of the *TOEFL Bulletin of Information for Candidates* are available at most American embassies. The application to take the TOEFL test must be received by the Educational Testing Service at least four weeks before the testing date.

### 3. Official transcripts of all previous secondary school and college work, including an English translation. A letter of reference from a prominent person in your community, verifying character, background, and ability.

### 4. A non-refundable application processing fee of \$25.00 in the form of a money order made payable to Crafton Hills College.

### 5. Official documentation of birthdate. No international students under eighteen years of age will be admitted.

### 6. A recent photograph. Photocopies are not acceptable.

### 7. Verification of a recent chest X-ray or skin test that indicates a negative tuberculosis test. Note: X-ray or skin test must be done in the United States. The results must be on file with the College within the first month of attendance.

### 8. An affidavit of financial support.

### 9. When all requirements have been met, a letter of acceptance will be mailed. An I-20 will be mailed upon receipt of the first semester's fees in American dollars in the form of a money order.

## The following rules apply to international students at Crafton Hills College:

### 1. You must be in the local area no later than August 1 for Fall Semester and January 4 for Spring Semester.

### 2. You are responsible for finding your own housing in nearby communities. The College does not have living facilities on campus.

### 3. First semester fees must be paid before an I-20 is issued.

### 4. You must report to the Student Services office at the College when you arrive in the area and present your Visa, I-94, I-20. These documents will be copied and filed. The counseling and registration procedure will be explained at that time. Subsequently, you must pay all required fees at the time of registration.

### 5. You may attend Crafton Hills College for a maximum of five semesters. You must take twelve or more units each semester.

### 6. You must present proof of enrollment in an international health insurance plan.

# Student Services

A team of committed student services professionals will assist you to achieve your educational and training goals. Listed below are descriptions of services now available.

## Athletics

Crafton Hills College does not offer a program of intercollegiate athletics. However, Crafton Hills College students may participate in the athletic program at San Bernardino Valley College just as if they were enrolled at San Bernardino Valley College.

## CalWORKs Program

This program is a statewide employment initiative designed to assist students who are on public assistance. It is a program that provides EDUCATION, TRAINING AND SUPPORTIVE SERVICES to eligible students.

### FOCUS:

- Assist students to successfully complete an approved certificate/occupational program.
- Provide short-term educational training programs designed to assist students in obtaining employment.
- Assist in employment experiences on and off campus.
- Assist with childcare needs.
- Provide critical support services such as assessment, counseling, and tutoring.
- For more information and questions call (909) 389-3239.

## Career Center

Specialized services to assist students with transfer and career planning are available in Transfer/Career Center in the Counseling Office SSB 201. Students planning on transferring to a university or other institution may explore options or identify the requirements necessary for a successful transfer. Representatives from local universities are available by appointment throughout the year to specifically advise students on transfer to their institution. Workshops on preparing applications as well as other topics related to transfer are provided in the Transfer/Career Center. Students who would like to participate in career exploration activities or need assistance in preparing a job search, writing a resume and interviewing techniques can receive assistance through the Center. The Center also provides a referral service for jobs available to students on campus and in the community. For information and questions call (909) 389-3366.

## Counseling

The college provides counseling services to current and prospective students. Students who wish to receive assistance with making career choices or with planning a program of study to complete a certificate, degree or transfer requirements are encouraged to see a counselor. Counselors will assist students with planning a program of study that will allow students to transfer to the university or other post-secondary institution of their choice using current articulation agreements and other pertinent information. For students who would like assistance with the selection of a career pathway, counselors have access to a wide assortment of resources, including instruments which evaluate career interests and values, as well as professionally prepared career guidance materials. Students who may encounter personal issues that affect their ability to succeed in school are also encouraged to see a counselor who can assist the student with accessing appropriate support from college and community resources. The Counseling Center is located in SSB 201. For questions and information call (909) 389-3366.

## Disabled Student Services (DSS)

Crafton Hills College offers a comprehensive program of support services to students with disabilities. Students who have a physical disability or a learning disability are eligible for services, which are provided according to individual need.

Support services are provided as appropriate. These include priority registration, special parking, tram services, and tutors. In addition, specialized counseling, career and program guidance, and community liaison activities are available.

Office: SSB-108

Office Hours: Monday-Thursday 8:00 am to 7:00 pm  
Friday 8:00 am to 4:00 pm

For additional information, call the Disabled Student Services at (909) 389-3325 or TDD (909) 794-4105.

## Extended Opportunity Programs and Services / Cooperative Assistance Resources for Education (EOPS / CARE)

The Extended Opportunity Program and Services is a State funded program designed to assist in the admissions process of historically disadvantaged, low-income students. The aim of the program is to provide the necessary encouragement, support, and assistance to develop or redirect the abilities of these students to the fullest so they may be able to undertake and complete the challenges of a higher education.

Supportive services include tutoring, academic counseling, and financial aid assistance. Crafton Hills College admits the graduate of any high school and also any student who has not graduated from high school but who is at least eighteen years of age and can benefit from instruction. Eligibility guidelines addressing annual family income levels are established by State regulations. Please check with the EOPS/CARE office or the current class schedule for the most recent income guidelines.

To apply for the program, just write the

### **EOPS/CARE Office**

Crafton Hills College  
11711 Sand Canyon Road  
Yucaipa, California 92399

Telephone: (909) 389-3239  
Office: SSA-307

# **CARE**

## **Cooperative Agencies Resources for Education**

The EOPS Program also offers the CARE (Cooperative Agencies Resources for Education) to EOPS students who are single parents on TANF/CalWORKs with children under the age of fourteen. CARE services are in addition to what a student would receive as an EOPS student.

- EOPS/CARE Summer Readiness Program

The Summer Readiness Program is designed to assist first-time students (with no previous college experience) with acquiring specific skills important in making a successful transition into college. The program provides a great opportunity for students to experience and become acquainted with the necessary college survival skills and avoid the typical adjustment problems encountered upon entering college for the first time.

There is no cost to qualified eligible students who enroll in the program. All educational costs (books, supplies, etc.) are paid by EOPS/CARE. Students who successfully complete the six week program will be awarded an EOPS/CARE grant.

As a supplemental component of the EOPS program, CARE provides educational support services designed for the academically under-prepared, low income, single parent population. Grants and allowances for educationally related expenses are available.

## Financial Aid/Loans, Grants, and Employment

The Financial Aid office helps students seeking financial help to pay for the costs of attending Crafton Hills College. Money is provided to cover the cost of enrollment fees and/or tuition, books, transportation, and partial living expenses. Students may be working and still qualify for financial assistance.

There are basically two types of financial aid: grants and self help (such as work study and loans). Grants are awarded on the basis of financial need and do not require repayment. Loans provide an opportunity to defer educational costs by borrowing now and paying later. (Please ask for a copy of the Crafton Hills College loan policy in the Financial Aid Office.) Work study offers students the opportunity to earn a portion of their college expenses through part-time employment during the school year.

The Free Application for Federal Student Aid (FAFSA) must be used when applying for financial aid. Applying on time is critical. Be sure to contact the Financial Aid Office regarding deadlines. The completed FAFSA should be mailed to the federal processor after January 1, but no later than the last day of the previous spring semester, in order to ensure funds will be available for the beginning of fall semester in August.

After receiving the FAFSA, the federal processors will forward a Student Aid Report (SAR) to the student. Students should review this form. If changes are necessary, make the corrections on Part II of the SAR and return it to the Federal Student Aid Programs at P.O. Box 7004, Mt. Vernon, IL 62864. If no changes are necessary, the student should keep the SAR for his/her records. Students are not required to submit the SAR to the Financial Aid Office. It is important, however, that all requested documentation be returned as soon as possible. Financial Aid awards are made only *after* a student's file is complete.

On-time applicants (those who have complete applications by the last day of the previous spring semester and who have returned all requested materials) can expect to receive a financial aid award letter by July. Students receiving financial aid are expected to make satisfactory academic progress toward their educational goal. This includes completing all classes for which aid is received.

The Financial Aid staff is here to assist you. Students often find applying for financial aid a difficult and confusing process. Those needing help or advice are encouraged to go to the Financial Aid Office. For information and questions call (909) 389-3223.

- TYPES OF FINANCIAL AID

#### **1. BOARD OF GOVERNORS ENROLLMENT FEE WAIVER**

This waiver is available to California residents to cover resident enrollment and health fees. Students must demonstrate financial need by completing the Free Application for Federal Student Aid (FAFSA) or the Board of Governors Enrollment Fee Waiver Application. The maximum waiver is equal to the community college enrollment and the health services fees.

#### **2. CAL GRANTS**

The California Student Aid Commission offers three grants for which Crafton Hills College students are eligible to apply. The deadline to apply for these programs for the following year is March 2 and September 2. Students interested in this program must meet the published deadline; no exceptions are made. To apply students must complete the Free Application for Federal Student Aid (FAFSA) and a GPA Verification form (both forms are available in the Financial Aid Office).

#### **3. FEDERAL PELL GRANT PROGRAM**

Crafton Hills College participates in the Federal Pell Grant Program, which provides federal grants of approximately \$3,713 per year for students, depending upon the financial ability of the family and/or individual to contribute to the cost of higher education (as determined by a federal methodology). Applicants must be US citizens or eligible non-citizens and complete the Free Application for Federal Student Aid (FAFSA) and other required supplemental materials. All application materials are available in the Financial Aid Office. Students may apply for a Federal Pell Grant any time after January 1, 2003 until June 1, 2004.

#### **4. FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (SEOG)**

Crafton Hills College participates in the Federal Supplemental Educational Opportunity Grant program, which provides federal grants to a maximum of \$1,500 per year for students who qualify. The average grant at Crafton Hills College is \$500. Applicants must be US citizens or eligible non-citizens and complete the Free Application for Federal Student Aid (FAFSA) and other required supplemental materials. All application materials are available in the Financial Aid Office.

#### **5. FEDERAL WORK STUDY**

Students who are interested in the federal work study (FWS) program are required to complete a Free Application for Federal Student Aid (FAFSA) and other supplemental materials. All application materials are available in the Financial Aid Office.

#### **6. FEDERAL FAMILY EDUCATION LOAN PROGRAM**

The Federal Subsidized Stafford Student Loan program is a federally supported loan available to needy students. Eligible Crafton Hills College students may borrow between \$500 and \$3,500 based on their need, year in school, and satisfactory academic progress. Students must be eligible for need-based aid to receive a Subsidized Stafford Loan. There is no repayment or interest accrual while a student is enrolled at least half-time. Six months after ceasing at least half-time enrollment, a variable interest rate (In 2002/2003 this interest rate was 4.06%.) begins to accrue and payments begin at a minimum of \$50 per month. There is a maximum of 10 years to repay the loan.

To apply for a loan under the Federal Family Education Loan Program, a student must complete a Free Application for Federal Student Aid (FAFSA) and attend an "entrance interview" with a member of the Financial Aid staff. Students may come to the Financial Aid office to receive a copy of the student loan policy.

### Health and Wellness Center

Student Health Services contributes to the well being and educational aims of the students through health-oriented activities and services. A primary function of the center is to assist the student in maintaining health. The student learner who is at a high level of health or wellness is better able to pursue his/her goals. Health is not limited to the absence of disease but is a dynamic balance with physical, emotional, and social health elements. Illnesses, injury, and stress hinder the energy and attention a student has to focus on learning, study, and class attendance. Through supportive health services it is possible to assist and further the educational experience.

Services include the following: (a) health education and counseling programs; (b) assessment, intervention, and referral services, which include health appraisal, screening, first aid and urgent care, nursing services, mental health counseling and crisis intervention; (c) health promotion activities; (d) communicable disease surveillance and control programs; (e) illness and injury prevention programs and services; (f) advisory and consultative activities for promotion of a safe and healthful campus environment. The Student Health Services Office is located in SSB 101, for information and questions call (909) 389-3271.

## Housing

Crafton Hills College has no dormitories and therefore cannot assume responsibility for student residence. However, you can get information regarding housing accommodations from the Counseling and Career Center.

## Student Activities

### • Associated Students of Crafton Hills College

The Associated Students of Crafton Hills College (ASCHC) is recognized by the San Bernardino Community College District Board of Trustees and the administration of Crafton Hills College as the representative body for students in the governance of the College and the District. Membership is open to all students. Many student activities and other membership benefits, including discounts at local businesses and the college bookstore, are provided through the sale of ASB cards.

The governing body of ASCHC is the Student Senate. The Senate oversees all student activities and is responsible for budgeting and allocating Student Body funds, Student Center Fee funds, and Student Representation Fee funds. Officers are elected in the spring for one-year terms. Senate meeting times and agendas are posted in the Senate office, next to the Cafeteria/Student Center.

In addition to supporting various student activities and events on campus, the Student Senate sponsors and supports special-interest clubs and organizations. Some of the active organizations are:

- Accounting and Business Association
- Alpha Gamma Sigma (AGS)
- Black Student Union (BSU)
- Campus Christian Club (CCC)
- Movimiento Estudiantil Chicano de Aztlan (MEChA)
- BETA II (Respiratory Therapy Club)
- Student California Teachers Association (SCTA)
- American Indian Association (AIA)
- Terrestrial Investigation Club (TIC)

For information and club meeting times, call or visit the Student Senate Office, located next to the Cafeteria, on the west end of the campus.

The Student Senate Office sells discounted tickets to amusement parks and Omnitrans Bus passes and Associated Student Body (ASB) cards. Fax service for students is also available in the office (Contact the Senate office for rates and more details). In addition, students may obtain their student I.D. cards in the Student Senate Office. The Student Senate Office is located in the Campus Center Building next to the Cafeteria. For questions or information, you may call (909) 389-3410.

## Student Matriculation

New, non-exempt students enrolling in California community colleges must participate in a matriculation process. Matriculation is a process which brings together a college and a student who enrolls for credit into an agreement for the purpose of realizing the student's educational objective. The agreement includes the provision of an admission process, college orientation, pre-enrollment assessment, advisement and counseling for course selection, a suitable program of studies, and follow-up on student progress. The student agrees to express at least a broad educational objective at entrance. He or she also agrees to declare a specific educational objective within a reasonable period of enrollment, attend class and complete coursework diligently, and maintain progress toward an educational goal.

The purpose of Matriculation is to ensure access to appropriate programs and courses offered by community colleges to all students who can benefit, and to facilitate successful completion of student educational objectives in accordance with applicable standards of educational quality as determined by the Board of Governors and local trustees.

### • Appeals

The college provides an appeals process. Consult a counselor for review of the following matriculation concerns:

1. Review of placement decisions.
2. Waiver & challenge of prerequisites.
3. Complaint of unlawful discrimination. If a student feels that assessment, orientation, counseling, prerequisites, or any other matriculation procedure is being applied in an unfair manner, he or she should consult with the Vice-President of Student Services or designee.

### • Orientation

PCD 055 (Personal Career Development) is a course which meets the requirements of California's Matriculation Plan. The course is required for all new students. The course includes:

1. An introduction to college life and requirements.
2. Orientation to the services, policies, and philosophy of Crafton Hills College.
3. Explanation of the function and scope of a community college.
4. Information on certificate programs, Associate Degree requirements, and transfer requirements to four-year colleges and universities.
5. Career/Life Planning, interest inventory test, and occupational research.
6. Development of Student Educational Plan.
7. Debt management.

For information or questions call (909) 389-3366.

## Student Success Program

The Student Success Program is designed to assist new and continuing students with negotiating the sometimes confusing and frustrating processes of the college learning environment. Student Success Advisors are available to answer student questions, and to connect students to the myriad of resources available to the college. New and continuing students who do not know where to begin to get their questions answered or problems solved are welcome to call the Student Success Advisors, who will lend a friendly ear and assist the student with successfully resolving their problems. Students are encouraged to give the Student Success Program a call or stop by the office if they have any questions or if they encounter any problems with attending class or successfully completing coursework. The Student Success Program is located in SSB 203. Counselors are available Monday through Friday during counseling hours. Students may also call the office at (909) 389-3450 or email the program at [embell@craftonhills.edu](mailto:embell@craftonhills.edu).

## Support Services

In order to help you achieve a satisfying educational experience, Crafton Hills College provides a number of support services.

- Library

Located at the center of the campus, the Library supports the teaching program of the college with more than 63,000 book titles, 1100 full-text periodicals on ProQuest, and 20 Internet computers. Our online catalog of books, videos, music CD's, and some online reference materials can be accessed on the CHC website over the Internet. ProQuest can also be searched from our website over the Internet from your home.

Library cards are free to Crafton Hills College students and to residents of the community. Inland Empire Academic Libraries Cooperative Library cards are also available free to Crafton Hills College students, making it possible to check out the books of 20 other college libraries throughout the Southland. For information and questions call (909) 389-3321.

- Learning Center (TLC)

Various academic support services are provided for students and faculty through The Learning Center (TLC), located on the third floor of the Library building. Both a Math Center and a Writing Center are housed here, providing heightened service in those areas. In the TLC, students can enroll in self-paced classes in reading or study skills; have access to computers; engage in tutoring for various subjects, have exams proctored and practice language drills. In addition, TLC provides access to instructional audio or video tapes. Students facing challenges in their course work are encouraged to visit TLC early and often. For questions or information call (909) 389-3312.

- Bookstore

Textbooks and supplies are sold at the College Bookstore. For most of the academic year the Bookstore is open 7:45 a.m.-7:00 p.m. Monday-Thursday and 7:45 a.m.-3:00 p.m. Friday. However, at the beginning of each academic term the Bookstore also maintains additional hours for a short period of time.

For our students convenience, the Bookstore has a website where they can retrieve textbook information, reserve books at the beginning of the semester or purchase textbooks on line.

**Web Address:** <http://bookstore.craftonhills.edu>

## Veterans' Services

The College is fully approved to educate and train veterans under Federal and State laws and enactments. To receive veterans' benefits, however, you must be certified by the College to the Veterans Administration. Regulations demand certain materials be submitted to the Office of Admissions before you can be certified. They are:

1. A completed application for admission;
2. One copy of your DD-214, for your initial enrollment;
3. Official transcripts from all colleges/military schools you have attended;
4. Meet with Veterans Counselor to receive help in developing your career plan and program of study.
5. Enroll in your classes.
6. Turn in Veterans Enrollment Approval Form.

Please attend to these matters as soon as possible. It takes six to eight weeks for the Veterans Administration to process your request. For information and questions call (909) 389-3370.

# Instructional Programs and Services

Crafton Hills College offers a wide variety of instructional programs and services to the community.

- Cooperative Work Experience Education

Crafton Hills College offers working students the opportunity to receive two, three, or four units per semester based upon their employment. Students working 10 hours a week in paid positions or eight hours a week in volunteer positions are eligible for two units, three units are available for 15 hours a week in paid positions or 12 in volunteer positions, and four units may be taken if working 20 hours in paid positions or 16 in volunteer positions.

With the support and cooperation from the student's supervisor and the Work Experience Coordinator, each student will learn to establish and accomplish well-defined objectives in the work place, develop work ethics and gain an insight into interpersonal skills necessary to succeed.

Occupational Work Experience is offered to students who are currently working in one of the following majors: Accounting, Administration of Justice, Allied Health, Business Administration, Child Development, Computer & Information Systems, Emergency Medical Services, Fire Technology and Marketing. Two to four units may be taken each semester for a maximum of 16 units.

Students may earn two to three units per semester for a total of six units and need not be enrolled in a related course for General Work Experience. Both Occupational and General Work Experience require students to maintain a minimum of 7 units, including Work Experience, throughout the semester. In addition, students must attend one class meeting during the first two weeks of school and meet once individually with the Coordinator. Classes are offered on Monday and Thursday afternoons from 1:00 – 3:00 p.m. and again in the evening from 5:00– 7:00 p.m.

## Distributed Education

The mission of the Distributed Education Program of the San Bernardino Community College District is to expand access and provide greater flexibility to distant learners utilizing current and new technologies to deliver quality educational opportunities and to facilitate the attainment of students' personal and academic goals. Students enroll in Distributed Education courses at normal registration times, by mail, or through telephone registration. For additional information, call the Distributed Education office at (909) 384-4325.

- Telecourses

Telecourses air over KVCR-TV, which is carried widely on area cable systems. Students who enroll in these courses attend on-campus orientation meetings, discussion sessions, and special lectures. There are generally five on-campus meetings. They also take on-campus examinations, but the majority of the course activity is engaged in wherever students find it convenient to view the television lectures, which are the key component of each of these courses. Students base their study in these courses on textbooks and specially prepared study guides that complement the TV lectures.

- Online Computer Courses

Online courses require students to have access to a computer connected to the Internet. Certain online courses also require a CD-ROM drive and sound output (such as headphones or speakers). Online classes usually have several on-campus meetings, but the rest of the learning activities are mediated through the computer and the Internet. Please check the current class schedule for information on the online courses being offered, or <http://learnonline.sbccd.cc.ca.us> for links to Distributed Education and the college.

## Evening College

The college offers a wide range of courses during the evening hours. These offerings make it possible for students who cannot attend classes during the day to pursue their educational goals, whether to prepare for transfer to a four-year institution, prepare for a specific occupation, upgrade work skills, work toward an associate degree, or engage in studies which offer personal development and enrichment.

## General Education

General Education courses provide a fundamental learning foundation for all instructional programs offered by the college. These courses are designed to stimulate the student's intellectual curiosity, to introduce the student to the major broad domains of higher education, and to develop the student's awareness of societal concerns and the responsibilities of citizenship. All programs leading to the Associate Degree include a general education component.

## Occupational Programs

Crafton Hills College offers a variety of occupational programs. Some of these programs lead to associate degrees; others lead to certificates of achievement; and some offer a choice of degree or certificate, depending on the level of education attained. For listings and descriptions of specific programs, see Section II; Section III, *Associate Degree Programs*; Section IV, *Transfer Programs*.

## Transfer Programs

You can take a program of lower division studies at Crafton Hills College that will qualify you for junior standing at most four-year colleges and universities in the United States. However, since the specific requirements of different institutions vary so widely you should become familiar with the requirements of the particular program at the four-year college of your choice and plan your Crafton Hills program to meet those requirements. See Section III, *Transfer and Associate Degree Programs*, and Section IV, *Transfer Institution—General Requirements*, for more specific information.

## Workforce and Economic Development

This department focuses on the College mission of economic development. Striving to enhance economic opportunities, this department responds to the needs of businesses and the community by providing a full range of services designed to improve employee performance and to foster growth. Programs include:

- Workforce Development

As an alternative to the College's regular occupational programs, the Workforce Development program provides a variety of fee-based classes aimed at helping people find employment. Courses are provided on a contract basis and are not academic equivalents to regular credit classes.

Workforce Development programs at Crafton Hills College provide an opportunity for individuals to develop occupational skills in preparation for employment or to improve or upgrade job skills to enhance performance in current employment. Specific class offerings are not included in the college catalog, but a list of offerings is available each semester under the Workforce Development section of the schedule of classes. Information on how to register and the fee for each class is also included in the College schedule of classes.

- Customized Education and Training

Local business, industry, and government agencies can receive a cost effective, flexible, and high quality educational service. Customized training provides employers flexibility in developing employee skills. The process includes assessment, developing solutions, implementing programs/training, and follow-up and evaluation.

- Economic Development

The three main goals include:

1. To coordinate a community college response to meet workforce needs that attracts, retains, and expands businesses.
2. To develop strategic public and private sector partnerships.
3. To identify, acquire, and leverage resources to support local economic development.

Information on any of the above programs can be obtained in the Workforce and Economic Development Office, or by calling (909) 389-3208.

# Parking Controls and Traffic Regulations

(All regulations apply to San Bernardino Valley College and Crafton Hills College)

The Board of Trustees of San Bernardino Community College District, in accordance with the laws of the State of California, has established the following regulations regarding traffic and parking controls for the San Bernardino Community College District Campuses.

### 1. General

- A. College motor vehicle regulations apply to all faculty, staff, students, and visitors operating or parking a vehicle on either campus.
- B. Persons violating these regulations or the California Vehicle Code may receive a San Bernardino Community College District citation and/or be subject to College district disciplinary action.
- C. Parking of motor vehicles and bicycles on San Bernardino Valley College or Crafton Hills College property is done at the owner's risk. The San Bernardino Community College District assumes no liability for damage or theft of a vehicle or its contents.
- D. Crafton Hills College is situated on a hillside. Please take appropriate precautions when parking your vehicle on an incline. When headed downhill, turn your front wheels into the curb. When headed uphill turn your front wheels away from the curb. *Always set your parking brake.*

### 2. Traffic Regulations

- A. Persons operating vehicles and parking on San Bernardino Community College District property are required to comply with these regulations and the California Vehicle Code.
- B. The speed limit on all campus roads is 15 miles per hour at San Bernardino Valley College and 25 miles per hour at Crafton Hills College or less when road or safety conditions require lower speeds.
- C. The speed limit on all campus parking lots is 5 miles per hour.
- D. No vehicles are permitted on inner campus walks except for vehicles delivering supplies and vehicles belonging to campus while in performance of maintenance, deliveries, etc.
- E. Roadblocks, barriers, or stanchions may be placed at any point deemed necessary for safety or convenience. Removal of these roadblocks, barriers, or stanchions is prohibited.
- F. Pedestrians have the right of way at all times.
- G. The use of skateboards or roller skates is prohibited on the campus.
- H. Mopeds, when on campus walkways, shall be pedaled only. Use of power is strictly forbidden beyond parking lots and campus roadways.

**3. Parking Regulations:**

- A. Staff and faculty lots are reserved for the sole use of personnel employed by the San Bernardino Community College District. DEPENDENTS OF EMPLOYEES ARE PROHIBITED from using staff and faculty parking lots.
- B. Parking stalls marked "VISITORS" ARE SOLELY FOR VISITORS. Students, staff, and faculty are prohibited from parking in these areas.
- C. Parking is prohibited in loading zones, posted areas along curbing, and/or red lined areas.
- D. Vehicles are to be parked in properly marked stalls only. Backing into or taking up more than one parking stall is prohibited.
- E. Physically handicapped students may be given special parking privileges, which will be evidenced by a San Bernardino Community College District handicapped permit affixed to a valid parking decal.
- F. Motorbikes, motorcycles, and other two-wheeled motorized vehicles must be parked in areas designed for this type of vehicle.
- G. Vehicles parking in prohibited areas that block the flow of traffic, fire-fighting/emergency equipment, driveways, roadways or in posted "No Parking" zones will be towed away at the owner's expense and at no responsibility to the college district. (CVC 22702)
- H. Vehicles abandoned on college property for over 72 hours without prior college authorization may be removed at owner's expense. (CVC 22702)

**4. Parking Permits**

- A. Faculty and staff are required to have a current permanent parking permit (decal) or current parking ticket to park in staff lots. All persons using non-staff parking lots are required to have a current permit or a current parking ticket. Staff may purchase additional decals for their use.
- B. Permits must be properly displayed while on campus.
- C. The following charges will be made for all permits:

Annual permits	\$35.00
Semester	\$20.00
Summer	\$15.00
Add'l staff decals	\$ 3.00
Daily parking	\$ 1.00

Daily parking will be verified by a current San Bernardino Community College District parking ticket placed on the dashboard of the car.

Additional non-staff and non-faculty permits will be charged at the same rate as the first permit.

- D. Permits for staff and faculty will be purchased in the Police Communications Office.
- E. Permits for students will be purchased in the College Police Office at SBVC and in the Police Communications Office at CHC.
- F. If a vehicle to which a current permit is affixed is sold or disposed of, the permit number must be reported to the College Police Office and the permit removed from the vehicle.
- G. Refunds will be made only to students and only when the following conditions are met:
  1. That all classes in which the student is enrolled are cancelled by the college and the student is thus disenrolled from the college.
  2. That a portion of the decal bearing the number is returned to the College Police Office and
  3. That the refund is requested within two calendar weeks from the date of the cancellation of the class(es).

# Policies and Regulations

Any community that runs smoothly establishes and enforces policies and regulations to guide the behavior of its members. The College has decided the rules detailed below will enhance the opportunity of pursuing an educational program satisfactory to all or most faculty and students.

**OPEN CLASSES**

If you have been officially admitted to Crafton Hills College, you are eligible to enroll in any class for which you meet either the prerequisites or corequisites or both. Of course, only so many persons can fit into classrooms and laboratories, so class sizes are limited and enrollment is generally on a first come, first served basis.

**CANCELLING CLASSES**

The college reserves the right to cancel any class that does not meet the minimum size requirements established by the district. Students will automatically be mailed a refund of the enrollment fees for any class cancelled by the college.

**NONDISCRIMINATION**

Crafton Hills College is committed to the achievement of equal educational opportunity. Decisions relating to your admission to the College, to student financing and student employment, or to participation in any College function will not be influenced by your race, religion, sex, age, disability, sexual orientation or national origin. If you believe that you have been the object of illegal discrimination, you may file a complaint for the purpose of correcting the improper treatment that you allege. The designated coordinator at Crafton Hills College for compliance with Section 504 of the Rehabilitation Act of 1973 for the Handicapped, as amended, and for compliance with Title IX, prohibiting sex discrimination in schools and colleges, is the Vice President of Student Services, in Room SSA-306, ext. 3354. Refer to Student Grievance Procedures.

**CREDIT FOR MILITARY EXPERIENCE**

If you have served on active duty with the Armed Forces for at least one year, you are eligible to receive up to seven units of Credit (CR) grades. Additional credit for military schools and college-level examinations may be earned in accordance with the recommendations of the American Council on Education. Inquire at the Counseling Center for full details.

**UNITS OF CREDIT**

Academic work at Crafton Hills College is measured in units of credit. In general, to earn one unit of credit, you attend a lecture class that meets one hour a week; a laboratory class that meets two or three hours a week; or clinic, field, or work experience for five hours a week.

An exception to this rule is credit by examination. You earn credit by examination by demonstrating in a test situation a mastery of a particular subject area.

## UNIT LIMITATIONS

To be considered a full-time student, you must carry a minimum of twelve (12) units.

If you are a regular full-time student, you are restricted to a maximum of eighteen (18) units each semester.

If you attend evenings only, you are restricted to nine (9) units each semester.

During the summer session, you are restricted to one (1) unit for each week of instruction. For example, in the six-week session, you may carry up to six units.

If you wish an overload, that is, units in excess of the maximum, you must receive approval from a College counselor prior to registering for classes. Contact the Counseling Center for exceptions to this policy.

## STUDENT CLASSIFICATION

You are classified according to the number of units successfully completed. If you have completed fewer than thirty units, you are considered a freshman; thirty or more, a sophomore. If you have completed more than sixty units, you are classified as a special student.

## CREDIT/NO CREDIT

If you wish to be graded in any class on a Credit/No Credit basis, you must so indicate by the end of the 5th week, or in the case of summer session or short-term course(s), no later than the end of the first 30% of the term. If you have received a "CR" grade for a course, you may, upon showing adequate justification and need for a change, have the "CR" grade changed to a letter grade by the instructor of record. If the instructor of record is no longer available, the change of grade may be made by the appropriate administrator.

You may take up to fifteen (15) units of Credit ("CR") courses to apply toward graduation requirements.

No course in your major or required by your major may be taken for Credit ("CR"); that is, subjects in your major must be taken for a letter grade. However, if you have completed courses for Credit ("CR") and subsequently declared a major in that course of study, the rule may be waived.

A student must earn a grade of "C" or higher to be granted credit (CR) for a course.

Units from Credit/No Credit courses will apply toward graduation, but are not included in the grade point average.

## INCOMPLETES

An incomplete or "I" symbol will be awarded to the student who, in the judgment of the instructor, is unable to complete a course due to a verified emergency. The instructor must complete an Incomplete form available from the Admissions and Records Office. The form should include the instructor's statement of what the student must do to complete the course and what grade the student will receive if the required work is

not completed within one year from the end of the semester in which the "I" is assigned. The Admissions and Records Office will notify the student of the "I" and keep a copy of the form on file. The student cannot register into the same course until the "I" has been removed by the instructor.

## WITHDRAWAL FROM CLASSES OR FROM THE COLLEGE

If you withdraw prior to the end of the 4th week (or 30% of a term, whichever is sooner), no entry will be made on your record.

If you withdraw or are dropped from a course before the end of the 14th week of a semester or before 75% of a summer session or short-term class has been completed, you will receive no evaluative grade. The letter "W" will be recorded on your transcript, indicating "Withdrawal."

This symbol carries no evaluation of your work, but is a clerical notation that you were enrolled in the course and withdrew or dropped without grade or unit credit. However, "Ws" are used in the probation and dismissal procedures.

**After the 14th week:** If you continue any course for which you are enrolled after the 14th week of the semester or after 75% of a summer session or short-term class has been completed, you will receive a grade in the class from your instructor, other than a "W," according to the grading system of the college.

## CREDIT BY EXAMINATION

Currently enrolled students who feel that their knowledge is equivalent to the course content of a currently approved course may apply for credit by examination. To do so, the following conditions must exist:

- The student must submit evidence of extensive background and/or experience in the subject area to the instructor of the course.
- The student must have completed twelve (12) or more units at Crafton Hills College or be a permanent employee of the San Bernardino Community College District.
- The student must be enrolled in the college during the semester in which the examination is taken.
- The student must have the approval of a full-time instructor in the discipline.
- Credit by examination for foreign language courses will be granted only to students who take the next higher language course at CHC, and only with the approval of the appropriate foreign language instructor.

To apply, the student must submit a fully completed and signed application for Credit by Examination for each course requested to the CHC Office of Instruction. Applications may be obtained in the Admissions and Records Office (Room SSA-213).

In addition to paying the enrollment fee based on the number of units in the course that is being challenged, there is an additional processing fee of \$20 that is applied to all credit-by-examination applications (SBCCD Board Policy 7180).

**CONCURRENT ENROLLMENT**

If you are a Crafton Hills College student, you may take courses at San Bernardino Valley College during the same semester.

**EXAMINATIONS**

Students must take all examinations given in the courses in which they are enrolled, and may not be excused from the required examinations of any course, including final examinations. Students who are absent during an examination forfeit the right to make up the examination unless they have prior permission from the instructor.

**CLASS ATTENDANCE**

It is the student's responsibility to attend classes regularly and on time. **Students who do not attend the first class session may be dropped from the class at the discretion of the instructor.** If you must miss a particular class, you should notify the instructor as soon as possible, but in no case later than the first day you return to school. An instructor may drop you from a course for excessive absences. Reinstatement is the prerogative of the instructor.

**OPEN ENTRY/OPEN EXIT COURSES**

Students completing less than 75% of the work or time required in an open entry/open exit course will be given a grade of "W," which will be included in completion-ratio calculations. Students completing 75% or more of the work or time required will be assigned the grade earned, i.e., "A", "B", "C", "D", "F", "CR" or "NC."

**GRADE CHANGES**

Individual course instructors are responsible for assigning grades. All grades are final. As per SBCCD Board Policy 5040, grades will not be changed for any reason or under any circumstance after 36 months from the end of the term in which the grade was assigned.

**GRADING SYSTEM**

The evaluative and non-evaluative grading symbols and their meanings are as follows:

Evaluative Symbols	Definition	Grade Points
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least a "C")	0
NC	No Credit (less than satisfactory)	0

Non-Evaluative Symbols	Definition	Comments
I	Incomplete	Instructor initiated.
W	Withdrawal	Student or instructor initiated.
IP	In Progress	Assigned for classes which continue across semester and/or intersessions dates.
RD	Report Delayed	Assigned by the Registrar's Office when grades are not recorded but term is completed.

**STANDARDS FOR PROBATION**

A student shall be placed on either Academic Probation or Progress Probation according to the following rules:

1. Academic Probation: The student's cumulative grade point average in twelve or more units falls below 2.0 in all units attempted which were graded on the basis of the college grading scale.
2. Progress Probation : The student has enrolled in at least twelve units and has received non-evaluative symbols of **W**, **I** and **NC** in 50% or more of the units for which he/she was enrolled.
3. The student has been disqualified from another collegiate institution.

**REMOVAL FROM PROBATIONARY STATUS**

1. A student on probation may appeal this status by filing a request for special consideration with the Student Services Petitions Committee. (Petitions are available in the Admissions and Records office.)
2. A student shall remain on academic probation until he/she earns a cumulative grade point average of 2.0 or higher.
3. A student shall remain on progress probation until he/she receives less than 50% of **NC**'s, **I**'s and **W**'s in all units in which he/she has been enrolled.

**COUNSELING REQUIREMENTS**

When a student earns a grade point average of less than 2.00 while on either academic or progress probation, he/she will not be allowed to register until after having met with a counselor for class scheduling approval.

**STANDARDS FOR DISMISSAL**

For the purposes of this section, semesters shall be considered consecutive on the basis of the student's enrollment (e.g., the fall semester of 2001-2002 followed by the fall semester 2002-2003 shall be considered consecutive if the student was not enrolled in the spring semester of 2001-2002.)

A student on academic and/or progress probation shall be dismissed for one semester when one or more of the following conditions exists:

1. The student has earned a cumulative grade point average of less than 2.0 in all units attempted, based on the grading scale, in each of three consecutive semesters;
2. The student has received non-evaluative symbols of **W, I,** or **NC** in 50% or more of the units for which he/she was enrolled in each of three consecutive semesters; or
3. The student receives a combination of the evaluative and/or non-evaluative patterns listed in 1 and 2 in each of three consecutive semesters.

#### RE-ADMISSION

1. A disqualified student may appeal his/her dismissal by filing a Petition for Special Privilege with the Student Services Petitions Committee.
2. A student may be reinstated after one semester from the date of disqualification.
3. A student enrolled following dismissal shall be on probationary status and subject to dismissal.
4. If the scholastic achievement of a student readmitted after disqualification continues at a probationary level, the student may be disqualified for one year.

#### REPEATING COURSES

Courses in which a substandard grade of D, F, NC was issued may be repeated one time. Only the units and the grade for the course taken the second time will be used to compute the student's GPA and to count for degree or certificate requirements.

Courses in which an "Incomplete" (I) has been recorded may not be considered for repetition until such time as an evaluative symbol (letter grade) has been issued.

Courses in which a standard grade of C, B, A, CR was issued may be repeated one time only upon petition establishing circumstances that will justify such repetition. Grades issued for repeating a course under this petition process **will not be counted** in the computation of the GPA.

Grades, once entered on a student's academic record, remain permanent unless changed by the instructor of record or pursuant to Education Code Section 76224. No grade will be changed after 36 months.

Student permanent records shall reflect all work attempted so that the student's transcript is a true and complete academic record pursuant to Administrative Code, Title 5, Section 55761. Prior course repetition actions by other accredited colleges may be honored when a student's permanent record is reviewed for degree or certificate requirements.

#### ACADEMIC RENEWAL WITHOUT COURSE REPETITION

Students of Crafton Hills College may alleviate certain previous substandard academic and skills training performance which is not reflective of present demonstrated abilities in accordance with the following educational principles and procedures.

Academic renewal without course repetition may be accomplished by submission of a petition to the appropriate campus committee. A student may petition to have any substandard grades for courses taken during two consecutive semesters of attendance at any accredited college eliminated from the computation of the total grade point average, not to exceed a total of thirty (30) units.

Students submitting such petitions must have been enrolled and must have completed 24 units of college work at any accredited college with a grade point average of 2.5 or better subsequent to the semester being petitioned. The semester(s) under consideration must have been completed at least two semesters prior to the time of submitting the petition. Neither grades nor courses will be "taken off" the student's record. Instead, courses under consideration will be indicated and annotated accordingly on the student's permanent record. The student's permanent records from other institutions will not be altered. The student may not request for Academic Renewal more than once.

#### • Petition for Special Privileges Procedure

Students may obtain further information and/or forms regarding the appeals process from the Counseling Center, SSB 201 or the Student Services Office, SSA 306.

The completed petition must include:

1. The reason for the petition
2. A concise statement that may justify the granting of the petition
3. Any documentation that may support the granting of the petition

#### STANDARDS OF STUDENT CONDUCT

##### • In the Classroom

A proper teaching and learning environment is imperative for getting a good education. Everyone at Crafton Hills College is responsible for helping to create this environment, including students. Simple rules of courtesy apply.

1. **Respect for the Instructor.** This includes arriving on time, not leaving early, bringing appropriate materials, not speaking with other students while the instructor or another student is talking, not bringing food or drink into the classroom, and not being loud, boisterous, or argumentative.
2. **Respect for Other Students.** This includes not interfering with the rights of others to listen and participate, being respectful, and not using inappropriate language or harassing others in any way.
3. **Academic Honesty.** Lack of honesty in the classroom is considered a very serious offense. Any form of cheating on tests or assignments, turning in work which is not one's own (i.e., plagiarism), talking during tests, furnishing false information to college personnel, or knowingly misrepresenting oneself to the college are grounds for disciplinary action. The consequences of cheating are severe and may include receiving a grade of "F" for the class and/or possible expulsion from the college.

4. **Instructor's Rights.** An instructor has the right to remove a student from class at any time he or she considers a student's actions to be interfering with a proper collegiate environment. The instructor may also refer the incident to the Vice President of Student Services for disciplinary action as warranted.
5. **Student's Rights.** All students have a right to due process. If a classroom conflict occurs, the student must first discuss the problem with the instructor. If this does not resolve the problem, the student should follow the procedures detailed in SBCCD Board Policy 6090, *Student Grievances*.

- On the Campus

Creating a proper campus environment is also very important for academic and individual success. The SBCCD Board of Trustees has established district-wide standards of student conduct which will be enforced at all times. These rules of conduct are particularly important in large common areas such as the cafeteria, bookstore, vending areas, campus quads, and other regularly frequented areas.

#### STUDENT GRIEVANCE PROCEDURE

If you feel you have been treated unfairly, you have a right to complain. To ensure that your grievance receives a reasonable hearing, the College has established certain procedures. Consult with the Student Services Office, Room SSA 306, for details.

- Family Educational Rights & Privacy Act

Federal and state law does not permit access to or release of any information contained in student educational records to any unauthorized party or agency without proper court orders or written consent of the student. Crafton Hills College maintains a student record for everyone admitted; it contains the request for admission, transcripts of college work attempted, semester class enrollment data, placement test data, requests for financial aid while attending college, student health information, and VA authorization benefit forms. The College does not maintain a public directory.

Crafton Hills College students have the right to review their educational records.

Students may challenge the content of records by filing the proper petition.

#### LAWS TO HELP STUDENTS:

- Title IX

Congress passed Title IX of the Educational Amendment in 1972. Sex discrimination is prohibited in federally assisted, education programs. Title IX states:

*No person in the United States shall, on the basis of sex, be excluded from participations in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance.*

- Title II

Title II of the Education Amendments of 1976 is Federal Legislation regarding Vocational Education. One of the purposes is to help all students receive the job training needed to become financially secure. Part of the law is: *To develop and carry out programs of Vocational Education within each state so as to overcome sex discrimination and sex stereotyping in Vocational Education programs and thereby furnish equal educational opportunities in Vocational Education to persons of both sexes.*

#### CONTINUOUS ATTENDANCE AND GRADUATION

Students in continuous attendance at Crafton Hills College or students who have a break in attendance of less than five years may choose to meet either the graduation requirements in effect at the time they first attended the College or those in effect at the time they graduate.

#### READMISSION AND GRADUATION

Students who have had a break in attendance at Crafton Hills College of more than five years may choose to meet either the graduation requirements in effect at the time of their readmission or those in effect at the time they graduate.

#### TRANSFER STUDENTS AND GRADUATION

Students who transfer to Crafton Hills College from other colleges and universities may choose to meet either the graduation requirements in effect at the time of their transfer or those in effect at the time they graduate.

#### ALUMNI ASSOCIATION

We warmly invite you to join other alumni and friends of the college in carrying on the tradition and school spirit of Crafton Hills College by becoming a member of the Crafton Hills College Alumni Association. Half of the money raised from annual dues, which are tax deductible, will be placed into a scholarship fund for Crafton Hills College students, with the remaining half being used for operational costs. For more information, contact Student Services at 389-3355.

#### Prerequisites, Corequisites, and Departmental Recommendations

When registering for classes, students are required to adhere to enrollment policies that relate to prerequisites, corequisites, and departmental recommendations.

1. A **prerequisite** means a condition of enrollment student is required to meet in order to demonstrate readiness for enrollment in a course or educational program. Students registered in a class without having completed the prerequisite(s) may be dropped from the class. Prerequisite courses completed with a grade of D or F indicate unsatisfactory performance in the course and do not satisfy the prerequisite.

2. A **corequisite** means a condition of enrollment consisting of a course a student is required to take simultaneously in order to enroll in another course.
3. A **prerequisite/corequisite** means a condition of enrollment consisting of a course a student must either have taken previously or be taking simultaneously in order to enroll in another course.
4. A **departmental recommendation** means a condition of enrollment a student is advised, but not required, to meet before or in conjunction with enrollment in a course or education program.

#### PREREQUISITE/COREQUISITE CHALLENGE PROCESS

Any prerequisite or corequisite may be challenged by a student on one or more of the grounds listed below. The student shall bear the initial burden of showing grounds exist for the challenge. Challenges shall be resolved in a timely manner and, if the challenge is upheld, the student shall be permitted to enroll in the course in question. Grounds for challenge are:

1. The prerequisite or corequisite has not been established in accordance with the District's process for establishing prerequisites and corequisites;
2. The prerequisite or corequisite is in violation of Title 5 of the Education Code;
3. The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner;
4. The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;
5. The student will be subject to undue delay in attaining the goal of his or her Student Educational Plan because the prerequisite or corequisite course has not been made reasonably available;
6. The student seeks to enroll and has not been allowed to enroll due to a limitation on enrollment established for a course that involves intercollegiate competition or public performance, or enrollment in one or more of the courses has been limited to a cohort of students. The student shall be allowed to enroll in such a course if otherwise he or she would be delayed by a semester or more in attaining the degree or certificate specified in his or her Student Educational Plan; and
7. The student seeks to enroll in a course which has a prerequisite established to protect students' health and safety, and the student demonstrates that he or she does not pose a threat to himself or herself or others.

#### ADVANCED PLACEMENT POLICY

Crafton Hills College is a participant in the Advanced Placement Program of the College Entrance Examination Board. Advanced Placement credit will be granted by Crafton Hills College according to the following policy:

1. Students must be enrolled at Crafton Hills College in order to apply for AP credit.
2. Students are required to have completed twelve (12) units at Crafton Hills College prior to applying for AP credit. An exception will be made to this requirement if an AP course serves as a pre-requisite for a more advanced course. See a counselor for details.
3. Students will be granted credit for AP scores of three (3), four (4), or five (5) in specific subject areas. Bring a copy of the AP score report to the Counseling office for evaluation. Students will receive units of credit and grades of Credit (CR) on their Crafton Hills College transcripts.
4. Units earned by AP examinations may be used to meet Certificate and Associate Degree requirements.
5. Units earned by AP examinations may be used towards CSU General Education Breadth certification according to the CSU approved list.
6. Units earned by AP examinations may be used to meet Intersegmental General Education Transfer Curriculum (IGETC), with the exception of critical thinking-English composition and oral communication requirements (Areas 1B and 1C). Credits earned with a score of 3 or higher on a designated AP examination may be applied when recognized by the college as equivalent to approved IGETC courses. Each individual AP examination can clear one course only.
7. Units of AP credit may not be used to satisfy financial aid, veterans or EOPS eligibility criteria regarding enrollment status.
8. Units of AP credit may not be used to satisfy the College's twelve (12) unit residency requirement, or be added to a student's earned unit total for priority registration purposes.

#### NOTE:

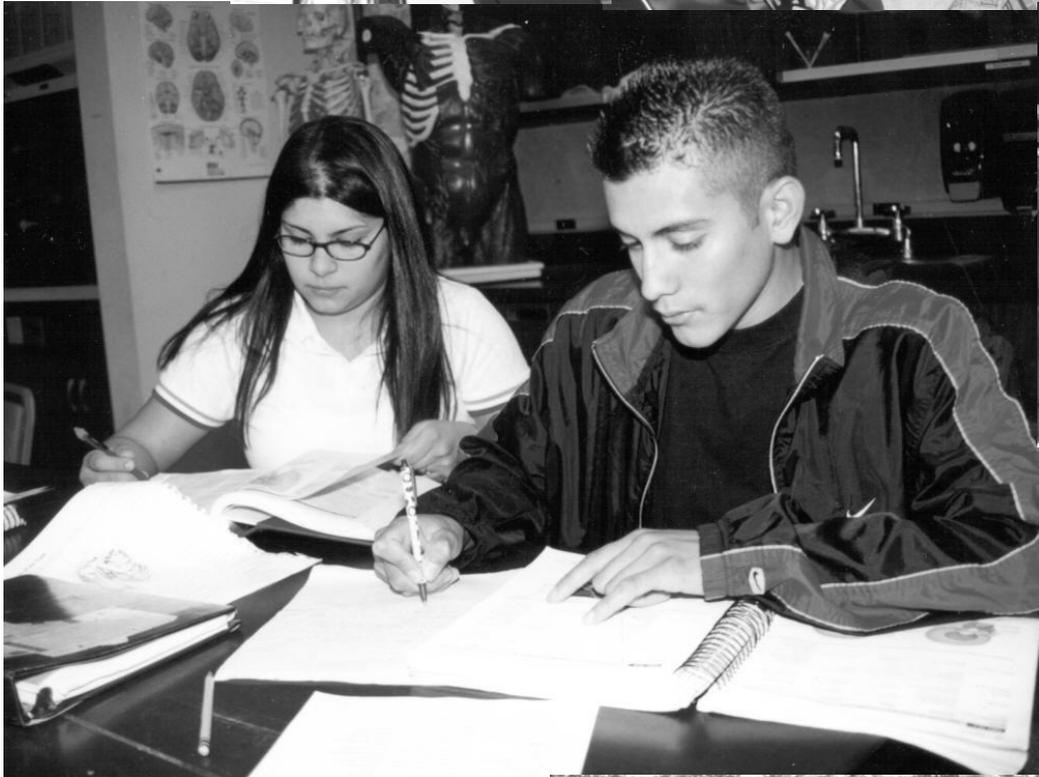
1. Some four-year institutions (e.g., out of state) may not accept AP credit.

The applicability and quantity of AP credits granted toward major/or baccalaureate degree requirements continues to be determined by the individual CSU or UC campus. Students planning to transfer should check the catalog of the transfer institution to determine how AP credit is awarded at that school.

## ADVANCED PLACEMENT (AP) EXAMINATION CREDITS

<b>Advanced Placement Exam with Score of 3, 4, or 5</b>	<b>CHC Units Awarded</b>	<b>CHC Course Equivalent</b>	<b>CHC General Education Graduation Credit</b>	<b>CSU General Education Credit</b>	<b>IGETC Credit</b>
Art History	3	ART 100 or ART 102	Area D1	Area C1	Area 3/Arts
Biology	4	BIOL 100	Area C	Area B2	Area 5 (no lab credit)
Chemistry	4	CHEM 101	Area C	Area B1	Area 5 (no lab credit)
Economics: Macro	3	ECON 200	Area D	Area D2	Area 4
Economics: Micro	3	ECON 201	Area D	Area D2	Area 4
English: Language and Composition	4	ENGL 101	Area A or Area F	Area A2	Area 1, Group A
English: Literature and Composition	4	ENGL 101	Area A or F	Area A2	Area 1, Group A
French Language	5	FRENCH 102	Area D1	Area C2	UC Language requirement
Government and Politics: US	3	POLIT 100	Area E	Area D8	Area 4
History: European	3	HIST 160 or HIST 161	Area D1 or Area E	Area C2 or Area D6	Area 3/ Humanities or Area 4
History: United States	3	HIST 100 or HIST 101	Area D1 or Area E	Area D6	Area 3/ Humanities or Area 4
Mathematics: Calculus AB	4	MATH 250	Area F	Area B4	Area 2
Mathematics: Calculus BC	4	MATH 251	Area F	Area B4	Area 2
Physics B	4	PHYSIC 110	Area C	Area B1	Area 5 (no lab credit)
Physics C (Mechanics)	6	PHYSIC 200	Area C	Area B1	Area 5 (no lab credit)
Physics C (Electricity and Magnetism)	(no credit allowed)				
Psychology	3	PSYCH 100	Area E	Area D9	Area 4
Spanish Language	5	SPAN 102	Area D1	Area C2	UC Language requirement
Statistics	4	MATH 108	Area F	Area B4	Area 2

<b>ACADEMIC PROGRAM</b>	<b>DEGREE</b>	<b>CERTIFICATE</b>	<b>PAGE</b>
ACCOUNTING	AA	X	28
ADMINISTRATION OF JUSTICE Administration of Justice Certificate	AA	X	30
ANTHROPOLOGY	AA		33
ART	AA		34
ASTRONOMY	AS		35
BIOLOGY	AS		36
BUSINESS ADMINISTRATION Business Management Certificate Retail Management Certificate	AA	X X	37 37 37
CHEMISTRY	AS		39
CHILD DEVELOPMENT Child Home Day Care Provider Certificate Associate Teacher Certificate Teacher Certificate Master Teacher Certificate Site Supervisor Certificate	AA	X X X X X	40 40 41 41 41 42
COMPUTER INFORMATION SYSTEMS Cisco Certified Network Associate Certificate Cisco Certified Network Professional Certificate Computer Hardware Technician Certificate Computer Information Systems Certificate Network Technician Certificate Programming Certificate Webmaster Certificate	AS	X X X X X X X	45 46 46 46 46 46 47 47
ECONOMICS	AA		52
EMERGENCY MEDICAL SERVICES Emergency Medical Technician-1 Certificate Emergency Medical Technician-Paramedic Certificate Mobile Intensive Care Nurse Certificate	AS	X X X	53 53 53 54
ENGLISH	AA		58
FIRE TECHNOLOGY California Fire Officer Training Certificate Fire Inspection Academy Certificate Firefighter Basic Training Academy Certificate	AS	X X X	61 62 62 62
GEOGRAPHY	AS		67
GEOLOGY	AS		68
HISTORY	AA		70
LIBERAL STUDIES	AA		112
MARKETING Marketing Management Certificate	AA	X	74 74
MATHEMATICS	AS		75
MICROBIOLOGY	AS		78
MUSIC	AA		81
PHILOSOPHY	AA		81
PHYSICS	AS		84
POLITICAL SCIENCE	AA		84
PSYCHOLOGY	AA		85
RADIOLOGIC STUDIES Radiologic Technology Certificate	AS	X	87 87
RELIGIOUS STUDIES	AA		92
RESPIRATORY THERAPIST Certified Respiratory Therapist (CRT) Certificate Registered Respiratory Therapist (RRT) Certificate	AS	X X	93 94 94
SOCIOLOGY	AA		99
SPANISH	AA		100
SPEECH	AA		101
SPEECH-LANGUAGE PATHOLOGY ASSISTANT	AS		102
THEATRE ARTS	AA		104



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## SECTION II

# Course Descriptions

Accounting ----- ACCT Administration of Justice ----- ADJUS Allied Health Services ----- AH American Sign Language ----- ASL Anatomy ----- ANAT Anthropology ----- ANTHRO Art ----- ART Astronomy ----- ASTRON Biology ----- BIOL Business Administration ----- BUSAD Chemistry ----- CHEM Child Development ----- CD Computer Information Systems ----- CIS Economics ----- ECON Education ----- EDU Emergency Medical Services ----- EMS English ----- ENGL Fire Technology ----- FIRET French ----- FRENCH Geography ----- GEOG Geology ----- GEOL Health Education ----- HEALTH History ----- HIST Human Services ----- HUMSV Interdisciplinary Studies ----- INTDIS Learning Resources ----- LRC	Marketing ----- MARKET Mathematics ----- MATH Microbiology ----- MICRO Music ----- MUSIC Oceanography ----- OCEAN Personal Career Development ----- PCD Philosophy ----- PHIL Physical Education - Personal Activities ----- PE Physical Education/Individual and Group Activities ----- PE/I Physical Education/Team ----- PE/T Physics ----- PHYSIC Physiology ----- PHYSIO Political Science ----- POLIT Psychology ----- PSYCH Radiologic Technology ----- RADIOL Reading and Study Skills ----- READ Real Estate ----- REALST Religious Studies ----- RELIG Respiratory Care ----- RESP Rotocraft-Helicopter Pilot Training ----- ROTO Sociology ----- SOC Spanish ----- SPAN Speech ----- SPEECH Speech-Language Pathology Assistant ----- SLPA Theatre Arts ----- THART Work Experience ----- WKEXP
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## Numbering of Courses

<b>010-099</b>	Multipurpose courses, but not generally applicable to the Baccalaureate degree.
<b>100-299</b>	Basic lower division courses applicable to the Associate degree; may also apply to the Baccalaureate degree.
<b>900-999</b>	Courses not applicable to the Associate degree.

### COURSE TRANSFERABILITY

Many courses numbered 100 through 299 are acceptable for transfer to the California State University and the University of California. Courses that are transferable to these universities will have CSU and/or UC printed directly beneath the title of the course. If CSU or UC is followed by an asterisk(\*), there may be a limitation on the credit allowed. Please check with a counselor for specific details. Courses that apply to the Associate degree are indicated under the course title.

### CALIFORNIA ARTICULATION NUMBER (CAN)

The California Articulation Number (CAN) System identifies many transferable, lower division, preparation courses commonly taught on California college and university campuses.

The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN courses on another participating campus. For example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on every other participating campus. Each campus retains its own numbering system but adds the CAN designation parenthetically in its publications.

Check with counseling offices, departmental offices, or articulation officers for current listings of CAN courses and campuses participating in the CAN System. A CAN CATALOG listing campuses and courses is published biannually.

# ACCOUNTING (ACCT)

Department: Business  
 Dean: Donna Ferracone, M.A.  
 Liaison Counselor: John Gist, M.S.

## ASSOCIATE OF ARTS DEGREE ACCOUNTING

REQUIRED COURSES:	UNITS
ACCT 210 Principles of Accounting	3
ACCT 211 Principles of Accounting Computer Laboratory	1
ACCT 220 Principles of Accounting	3
ACCT 221 Principles of Accounting Computer Laboratory	1
ACCT 225 Intermediate Accounting	3
ACCT 226 Cost Accounting	4
BUSAD 100 Introduction to Business	3
<b>TOTAL UNITS</b>	<b>18</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

## ACCOUNTING CERTIFICATE

The objective of this certificate is to provide entry-level, marketable employment skills to equip the student with a basic understanding of the terminology and basic concepts/procedures used in the accounting field, and to acquaint the student with the various sub-functions within the overall career field of accounting. Completion of the certificate program will prepare the student for entry-level employment in a variety of related occupations including payroll clerk, accounts receivable or payable clerk, and beginning general bookkeeper clerk.

**Admission:** Open to all students. Registration is limited to class size restrictions.

Certificate requirements include the completion of 5 core courses (no more than 1 course from each group) and the completion of 6 specialty courses.

### CORE COURSES

1. ACCT 205 Bookkeeping 3.0
2. MARKET 100 Marketing Principles 3.0
3. BUSAD 100 Introduction to Business 3.0
4. ECON 200 Principles of Macroeconomics (3.0)  
**OR**  
 ECON 201 Principles of Microeconomics (3.0)
5. BUSAD 210 Business Law 3.0
6. BUSAD 053 Business Computations (3.0)  
**OR**  
 MATH 108 Statistics (4.0)
7. Computer Language Course 3.0
8. BUSAD 230 Using Computers for Business 3.0

### REQUIRED SPECIALTY COURSES

ACCT 210	Principles of Accounting	3.0
ACCT 211	Principles of Accounting Computer Laboratory	1.0
ACCT 220	Principles of Accounting	3.0
ACCT 221	Principles of Accounting Computer Laboratory	1.0
ACCT 225	Intermediate Accounting	3.0
ACCT 226	Cost Accounting	(4.0)
	<b>OR</b>	
ACCT 230A	State and Federal Income Tax Accounting	(4.0)
	<b>TOTAL</b>	<b>30.0</b>

Contact the Admission's Office to apply for a certificate. If you wish to participate in the Graduation Ceremony, contact the Program Development Office at 389-3344 by March 1, 2004.

## 198 ACCOUNTING WORK EXPERIENCE 2 - 4 UNITS

CSU\*, Associate Degree Applicable

*Prerequisite: Enrolled in Accounting occupational program and working at a job directly related to student's major*

*Corequisite: Enrolled in at least 7 units, including this Work Experience course*

*Work Experience: 150-300 hours Paid Employment*

*120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**205 BOOKKEEPING****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Lecture: Minimum 48 hours per semester*

Fundamentals of bookkeeping, such as recording of transactions in journals, posting to ledgers, preparation of the trial balance, and use of the controlling accounts and related schedules with practice in opening, adjusting, and closing various professional sets of books. (Recommended for occupational students, and for those who wish preparatory training before entering ACCT 210.)

**210 PRINCIPLES OF ACCOUNTING****3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Corequisite: ACCT 211**Lecture: Minimum 48 hours per semester*

Development of the basic principles and practices applicable to the general accounting process; application of these principles to the accounting cycle, statement preparation, and the problems of merchandise, depreciation, accounts receivable and payable as well as accruals and deferrals. Also includes coverage of the relationship of accounting to the economic environment and accounting information systems. Emphasis will be on case learning reflecting a user's perspective and on developing team learning and decision-making skills. (CAN BUS 2)

**211 PRINCIPLES OF ACCOUNTING COMPUTER LABORATORY****1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Corequisite: ACCT 210**Laboratory: Minimum 48 hours per semester*

Instructing students in the interpretation and use of computerized accounting practice case.

**220 PRINCIPLES OF ACCOUNTING****3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ACCT 210, ACCT 211**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Corequisite: ACCT 221**Lecture: Minimum 48 hours per semester*

Development of the basic principles and practices applicable to the general accounting processes; application of these concepts in the fields of cost, income tax, stockholder's equity, funds statements and financial statement analysis including the statement of cash flows. In addition, coverage of the conversion cycle, budgeting and the administrative cycle in accounting. Emphasis will be on case learning reflecting a user's perspective and on developing team learning and decision-making skills. (CAN BUS 4)

**221 PRINCIPLES OF ACCOUNTING COMPUTER LABORATORY****1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite: ACCT 210, ACCT 211**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Corequisite: ACCT 220**Laboratory: Minimum 48 hours per semester*

Instructing students in the interpretation and use of computerized accounting practice case.

**225 INTERMEDIATE ACCOUNTING****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Lecture: Minimum 48 hours per semester*

Instruction in the study of adjustments, working papers, financial statements, cash and receivables, inventories, investments, plant assets, intangibles, liabilities, capital stock and retained earnings, statement analysis, and application of funds. Emphasis will be on case learning reflecting a user perspective and developing team learning and decision-making skills.

**226 COST ACCOUNTING****4 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942**Lecture: Minimum 64 hours per semester*

Instruction in the objectives and procedures of accounting for manufacturing enterprises; job and process costing, accounting for manufacturing overhead, joint-product and by-product costing, cost budgeting, standard costs, and cost reports. Emphasis will be on case learning reflecting a user perspective and on developing team learning and decision-making skills.

**227 ADVANCED INTERMEDIATE ACCOUNTING****3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942, ACCT 225**Lecture: Minimum 48 hours per semester*

Instruction in the study of liabilities, contingencies, stockholders' equity, retained earnings, earnings per share, investments, revenue recognition, pensions, leases, accounting changes, error analysis, Statement of Cash Flows, and full disclosure. Emphasis will be on case learning reflecting a user perspective and developing team learning and decision-making skills.

**228 AUDITING 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942, ACCT 225*

*Lecture: Minimum 48 hours per semester*

Instruction in the study and application of generally accepted auditing principles. Emphasis will be on case learning reflecting a user perspective and developing team learning and decision-making skills.

**229 ADVANCED AUDITING 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: ACCT 228*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942, ACCT 225*

*Lecture: Minimum 48 hours per semester*

Instruction in the application of generally accepted auditing standards towards auditing computerized accounting information systems. Emphasis will be on case learning reflecting a user perspective and developing team learning and decision-making skills.

**230ABCD STATE AND FEDERAL INCOME TAX ACCOUNTING 4 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None (Courses must be taken in sequence)*

*Departmental Recommendations: ACCT 205 and/or ACCT 210*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to state and federal income tax returns, tax principles and procedures, application, special tax problems, tax planning including implications of investments, tax shelters, tax preferences, small business endeavors, and retirement programs. The course objective is to provide a breadth and depth of tax knowledge suitable for entry level accounting jobs and transfer accounting majors.

**231 GOVERNMENTAL AND NON-PROFIT ACCOUNTING 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: ACCT 225 or the equivalent*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015, MATH 942*

*Lecture: Minimum 48 hours per semester*

Instruction in the application of accounting principles, standards, and methods to governmental and non-profit organizations.

# ADMINISTRATION OF JUSTICE (ADJUS)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.

**ASSOCIATE OF ARTS DEGREE ADMINISTRATION OF JUSTICE**

REQUIRED COURSES:	UNITS
ADJUS 101 Introduction to Administration of Justice	3
ADJUS 102 Principles and Procedures of the Justice System	3
ADJUS 103 Concepts of Criminal Law	3
ADJUS 104 Legal Aspects of Evidence	3
ADJUS 105 Community Relations	3

*Select six units from the following:*

ADJUS 106 Principles of Investigation	(3)
ADJUS 107 Concepts of Enforcement Services	(3)
ADJUS 108 Juvenile Procedures	(3)
PHIL 103 Introduction to Logic: Argument and Evidence	(3)
SOC 141 Minority Relations	(3)
<b>TOTAL UNITS</b>	<b>21</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**ADMINISTRATION OF JUSTICE CERTIFICATE**

**Admission:** Open to all students. Registration is limited to class size restrictions.

**Completion of the following 37 units qualifies the student for the Administration of Justice Certificate.**

REQUIRED COURSES		
ADJUS 101	Introduction to Administration of Justice	3.0
ADJUS 102	Principles and Procedures of the Justice System	3.0
ADJUS 103	Concepts of Criminal Law	3.0
ADJUS 104	Legal Aspects of Evidence	3.0
ADJUS 105	Community Relations	3.0
SPAN 015	Conversational Spanish I	3.0
SPEECH 100	Elements of Public Speaking	(3.0)
<b>OR</b>		
SPEECH 111	Interpersonal Communication	(3.0)

ENGL 101	Freshman Composition	4.0
SOC 100	Introduction to Sociology	3.0
SOC 141	Minority Relations	3.0

**6 Units from the Following List:**

Any Political Science Course	(3.0)
ADJUS 106 Principles of Investigation	(3.0)
ADJUS 107 Concepts of Enforcement Services	(3.0)
ADJUS 108 Juvenile Procedures	(3.0)
PHIL 105 Moral Values in Today's Society	(3.0)
<b>TOTAL</b>	<b>37.0</b>

**101 INTRODUCTION TO ADMINISTRATION OF JUSTICE**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

The history and philosophy of the administration of justice in America, recapitulation of the criminal justice system, and identifying the various sub-systems, role expectations, and their interrelationships, theories of crime, punishment and rehabilitation, ethics, education and training for professionalism within the system.

**102 PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

A study of the role and responsibilities of each segment within the Administration of Justice System: law enforcement, judicial, corrections. A past, present and future exposure to each sub-system, procedures from initial entry to final disposition and the relationship each segment maintains with its system members.

**103 CONCEPTS OF CRIMINAL LAW**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

This course covers the historical development and philosophy of law, constitutional provisions, definitions, classification of crime and their application to the system of Administration of Justice. It includes legal research, study of case law, constitutional law, legal methodology and the discussion of law as a social force.

**104 LEGAL ASPECTS OF EVIDENCE**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Examination of the origin, development, philosophy and constitutional bases of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.

**105 COMMUNITY RELATIONS**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Exploration of the roles of the administration of justice practitioners and their agencies; examines the interrelations and role expectations among the various agencies and the emphasis placed on the development of positive relations between members of the system and the public.

**106 PRINCIPLES OF INVESTIGATION**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Study of basic principles of investigation; problems in dealing with the public; specific knowledge necessary for handling crime scenes, interviews, evidence, surveillance, technical resources, and case preparation.

**107 CONCEPTS OF ENFORCEMENT SERVICES**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Historical exploration of the development of law enforcement dealing with the theories, philosophies, and concepts related to the role expectations of the law enforcement officer; emphasis on patrol, traffic and public service responsibilities and their relationship to the administration of justice system.

**108 JUVENILE PROCEDURES**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: ADJUS 101 and eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Historical exploration of the development of the juvenile justice system dealing with the theories, philosophies, and concepts related to the organization, functions and jurisdiction of juvenile agencies, processing and detention of juveniles, juvenile case disposition, juvenile status and court procedures.

**198 ADMINISTRATION OF JUSTICE WORK EXPERIENCE**  
**2 - 4 UNITS***CSU\*, Associate Degree Applicable**Prerequisite: Enrolled in Administration of Justice occupational program and working at a job directly related to student's major**Corequisite: Enrolled in at least 7 units, including this Work Experience course**Work Experience: 150-300 hours Paid Employment**120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

## ALLIED HEALTH (AH)

Department: Allied Health Services  
 Department Head: Kenneth Bryson, M.A.

### 050 INTRODUCTION TO HEALTH OCCUPATIONS **2 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

This course offers an introduction to a variety of health care fields and programs offered at local colleges. Professional organizations, regulatory bodies, and the policies that govern health care programs will be discussed. This is an excellent course for students interested in pursuing a health career and those who are preparing to set goals for their future.

### 090 SURVEY OF RADIOLOGIC TECHNOLOGY **1.5 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 24 hours per semester*

Introduction to basic principles and applications of Radiologic Technology and historical development of radiology; orientation to careers in the field.

### 101 MEDICAL TERMINOLOGY **3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Students are instructed in the usage, spelling, pronunciation, and meaning of terminology used to describe the human body. Accordingly, the class will explore terms pertaining to the structure and function of the body, the pathologic processes that affect it, and the diagnostic and therapeutic procedures that are used in health maintenance and disease management.

### 119A-Z SELECTED TOPICS IN ALLIED HEALTH **.5 - 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 8 to 48 hours per semester and/or*

*Laboratory: Minimum 24 to 144 hours per semester*

Examination of current topics related to the allied health field. Specific topics will be announced in the schedule of classes for the semester in which this course is offered.

### 198 ALLIED HEALTH WORK EXPERIENCE 2 - 4 UNITS

*CSU\*, Associate Degree Applicable*

*Prerequisite: Enrolled in Allied Health occupational program and working at a job directly related to student's major*

*Corequisite: Enrolled in at least 7 units, including this Work Experience course*

*Work Experience: 150-300 hours Paid Employment  
 120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

## AMERICAN SIGN LANGUAGE (ASL)

Department: Language Arts  
 Department Head: Mark Snowwhite, M.A.

### 101 AMERICAN SIGN LANGUAGE I **4 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 64 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Introduction to American Sign Language as used by the deaf community in the United States and other parts of the world. A basic vocabulary of about 600 signs is presented. Typical ASL sentence structures are demonstrated. Social conventions involved in ASL use are discussed. The lectures discuss the history of deaf education and the deaf community up to the end of the nineteenth century.

**Note:** This course corresponds to the first year of high school American Sign Language.

### 102 AMERICAN SIGN LANGUAGE II **4 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: ASL 101*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 64 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Continuing introduction to American Sign Language as used by the deaf community in the United States and other parts of the world. A basic vocabulary of about 600 additional signs is presented. Additional typical ASL sentence structures are demonstrated. More of the social conventions involved in ASL use are discussed. The lectures discuss the history of deaf education and the deaf community through the twentieth century. Particular attention is given to technological developments that have effects upon the deaf community and on individuals.

**Note:** This course corresponds to the second year of high school American Sign Language.

## ANATOMY (ANAT)

Department: Biological Sciences and Chemistry  
 Department Head: Lisa Shimeld, M.S.  
 Faculty: Mark Jonasson, Ph.D.

### ASSOCIATE OF SCIENCE DEGREE ANATOMY see BIOLOGY

**101 ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY 4 UNITS**

*CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Lecture: Minimum 48 hours per semester*  
*Laboratory: Minimum 48 hours per semester*

This is a combined lecture and laboratory course emphasizing the basic structural, functional and developmental stages and clinical aspects of the human body. The course is an introductory survey of the human body in one semester. The essentials of structure and function will be included in each of the eleven body systems covered, as well as the concepts of homeostasis.

**150 HUMAN ANATOMY AND PHYSIOLOGY I 4 UNITS**

*UC, CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Lecture: Minimum 48 hours per semester*  
*Laboratory: Minimum 48 hours per semester*

This is a lecture and laboratory course emphasizing an advanced understanding of the structural and functional aspects of the human body. This course is the first in a two semester series. The course covers biochemistry, cytology, cellular metabolism, histology, osteology, articulations, myology, and the integumentary and nervous systems.

**151 HUMAN ANATOMY AND PHYSIOLOGY II 4 UNITS**

*UC, CSU, Associate Degree Applicable*  
*Prerequisite: ANAT 150*  
*Lecture: Minimum 48 hours per semester*  
*Laboratory: Minimum 48 hours per semester*

This is a lecture and laboratory course emphasizing an advanced understanding of the structural and functional aspects of the human body. This course is the second in a two semester series. The course covers hematology, somatic and special senses, the body's nutritional needs, pregnancy and maturation, electrolyte and acid/base balance, and the endocrine, lymphatic, immune, respiratory, cardiovascular, digestive, urinary, and reproductive systems.

**159X4 HUMAN CADAVER DISSECTION 1 UNIT**

*CSU, Associate Degree Applicable*  
*Prerequisite: ANAT 101 or ANAT 150 and 151*  
*Laboratory: Minimum 48 hours per semester*

Human cadaver dissection for students with a special interest in further anatomical studies. This course may be taken four times.

**SELECTED TOPICS IN ANATOMY AND PHYSIOLOGY 1 - 4 UNITS**

**236ABCD**  
**237ABCD**  
**238ABCD**  
**239ABCD**

*CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Lecture: Minimum 16-64 hours per semester and/or*  
*Laboratory: Minimum 16-64 hours per semester*  
 Study of topics of current interest in Anatomy and Physiology.

**246 SPECIAL PROBLEMS IN ANATOMY AND PHYSIOLOGY 1 UNIT**

*CSU, Associate Degree Applicable*  
*Prerequisite: ANAT 101 or ANAT 150*  
*Independent Study: Minimum 48 hours per semester*  
 Independent projects involving library research or laboratory projects for students with a special interest in anatomy and physiology.

**247 SPECIAL PROBLEMS IN ANATOMY AND PHYSIOLOGY 2 UNITS**

*CSU, Associate Degree Applicable*  
*Prerequisite: ANAT 101 or ANAT 150*  
*Independent Study: Minimum 96 hours per semester*  
 Independent projects involving library research or laboratory projects for students with a special interest in anatomy and physiology.

**248 SPECIAL PROBLEMS IN ANATOMY AND PHYSIOLOGY 3 UNITS**

*CSU, Associate Degree Applicable*  
*Prerequisite: ANAT 101 or ANAT 150*  
*Independent Study: Minimum 144 hours per semester*  
 Independent projects involving library research or laboratory projects for students with a special interest in anatomy and physiology.

# ANTHROPOLOGY (ANTHRO)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.

**ASSOCIATE OF ARTS DEGREE ANTHROPOLOGY**

REQUIRED COURSES	UNITS
ANTHRO 100 Introduction to Archeology	3
ANTHRO 102 Cultural Anthropology	3
ANTHRO 106 Physical Anthropology	3
ANTHRO 107 The United States and the North American Indians	3
ANTHRO 110 Primitive Religions	3
GEOG 110 Physical Geography	3
SOC 100 Introduction to Sociology	3
<b>TOTAL UNITS</b>	<b>21</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 INTRODUCTION TO ARCHEOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

A general introduction to the history, objectives, and methods of modern archeology, prehistory and culture development of human groups, important archeological discoveries throughout the world, and the contributions of archeology to the understanding of the development of human culture from man's emergence as a culture-bearing animal millions of years ago to the beginning of written history.

**102 CULTURAL ANTHROPOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Introduction to the nature of human culture through a survey of the range of cultural phenomena of tribal and peasant peoples, linguistics, and other related topics. The explanation of similarities and differences among human societies is explored through processes of cultural change, social organization, religion, art, economics, and political organization, together with the impact of Western culture on non-Western societies. (CAN ANTH 4)

**106 PHYSICAL ANTHROPOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Introduction to human biology and evolution, the relationship of humans to other primates, the origin and antiquity of humans, fossil humans, geochronological dating, anthropometry, race classification and racial problems. (CAN ANTH 2)

**107 THE UNITED STATES AND THE NORTH AMERICAN INDIANS 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

History of the North American Indian from first contact through conquest and reservation life to the present; examination of modern Indian communities, including red power, urban life and current problems, including material on traditional Indian culture. This course is also offered as HIST 107.

**110 PRIMITIVE RELIGIONS 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Comparative study of supernaturalism in traditional societies, both past and present, including witchcraft, magic, totemism, mythology and ritual nativistic movements, and the religious context of drug usage. Prehistoric religion will be examined, as well as the belief systems of selected tribal people. This course is also offered as RELIG 110.

**ART (ART)**

Department: Fine Arts  
 Department Head: Marc Wurmbrand, M.F.A.  
 Faculty: Marc Wurmbrand, M.F.A.  
 Snezana Petrovic, M.F.A.

**ASSOCIATE OF ARTS DEGREE  
ART**

REQUIRED COURSES:	UNITS
ART 100 Art History I: Prehistoric Art to Medieval Art	3
ART 102 Art History II: Renaissance to Modern	3
ART 105 History of Modern Art	3
ART 120X4 Basic Design (must be taken twice)	6
ART 124X4 Drawing	3
ART 132X4 Life Drawing	3
<b>TOTAL UNITS</b>	<b>21</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 ART HISTORY I: PREHISTORIC ART TO MEDIEVAL ART 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Survey of outstanding periods in history of Western Art, tracing the relationship between the arts and society, which produced them. Required of all art majors and open to non-art majors.

**102 ART HISTORY II: RENAISSANCE ART TO MODERN ART 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Survey of outstanding periods in history of Western Art, tracing the relationship between the arts and society which produced them, with a focus on the period comprised of the Renaissance to the Twentieth Century. Required of all art majors and open to non-art majors.

**105 HISTORY OF MODERN ART 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: ART 100 and ART 102**Lecture: Minimum 48 hours per semester*

Survey of twentieth century art, touching on its historical roots and examining contemporary art as a manifestation of our social and environmental milieu.

**120X4 BASIC DESIGN 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester and*

*Laboratory: Minimum 64 hours per semester*

Progressive exploration of both the spontaneous and the developmental creative process; discovery and development of resources necessary to visual communication access to tools and experiences necessary for visual literacy. This course may be taken four times.

**124X4 DRAWING 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester and*

*Laboratory: Minimum 64 hours per semester*

Progressive investigation and interpretation of form and space on a two dimensional surface, using a variety of media and techniques. Components will include employing perspective, light and shade, and linearity. This course may be taken four times.

**126X4 PAINTING 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester and*

*Laboratory: Minimum 64 hours per semester*

Exploration of concepts, techniques, and materials of painting. This course may be taken four times.

**132X4 LIFE DRAWING 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 64 hours per semester*

Progressive study of the qualities of the human figure, including an overview of anatomy in relation to figure drawing, graphic interpretation of the human figure, including contour, gesture, and volume drawings. This course may be taken four times.

**175X4 SCULPTURE 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 64 hours per semester*

Progressive exploration in form and space, using stone, wood, clay, and plaster. Developing of skills in using the tools required for carving and life modeling methods typically employed in these media. This course may be taken four times.

**200X4 PRINTMAKING 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester and*

*Laboratory: Minimum 64 hours per semester*

Focus on concepts, techniques, and skills of printmaking. Areas to be covered: linoleum, wood cuts, silk screening, etching, and stenciling. This course may be taken four times.

**247X4 SPECIAL PROJECTS IN ART 1 - 3 UNITS**

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: Completion of a studio art class or*

*Corequisite: Concurrent enrollment in an art class*

*Departmental Recommendation: Student must have the approval of a faculty member and cooperatively produce a contract outlining goals and content of the project(s) to be undertaken*

*Independent Study: Minimum 48-144 hours per semester*

Independent study for selected students in any area of art, with projects determined jointly by student and instructor. This course may be taken four times.

**275X4 CONTEMPORARY SCULPTURE TECHNIQUES 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: ART 175X4*

*Lecture: Minimum 32 hours per semester and*

*Laboratory: Minimum 64 hours per semester*

Exploration of the use of contemporary tools and equipment necessary to execute stone sculptures in the environment of a working artist's studio. This course may be taken four times.

# ASTRONOMY (ASTRON)

Department: Physical Science/Mathematics  
 Department Head: Sherri Wilson, M.S.  
 Faculty: Matthew Adams, Ph.D.

**ASSOCIATE OF SCIENCE DEGREE ASTRONOMY**

REQUIRED COURSES:	UNITS
ASTRON 150 Introduction to Astronomy	3
ASTRON 160 Astronomy Laboratory	1
PHYSIC 200 Physics I	6
PHYSIC 201 Physics II	6
CHEM 150 General Chemistry I	5
CHEM 151 General Chemistry II	5
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
<b>TOTAL UNITS</b>	<b>39</b>

RECOMMENDED COURSE:	UNITS
MATH 254 Introduction to Ordinary Differential Equations	4

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**150 INTRODUCTION TO ASTRONOMY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Introduction to the broad principles underlying the behavior of cosmic forces, earth's place in the universe, the historical role of astronomy, and the processes which shape the universe.

**160 ASTRONOMY LABORATORY 1 UNIT**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Corequisite: ASTRON 150*

*Laboratory: Minimum 48 hours per semester*

Laboratory work to supplement Astronomy 150: identification of constellations and stars, discussion of astronomical methods of observation, and additional work with the telescope and accessories.

# BIOLOGY (BIOL)

Department: Biological Sciences and Chemistry  
 Department Head: Lisa Shimeld, M.S.  
 Faculty: Mark Jonasson, Ph.D.  
 Roger Sadler, M.S.  
 Lisa Shimeld, M.S.

**ASSOCIATE OF SCIENCE DEGREE BIOLOGY**

REQUIRED COURSES:	UNITS
BIOL 130 Cell and Molecular Biology	4
BIOL 131 Populations and Organisms	4
CHEM 150 General Chemistry I	5
CHEM 151 General Chemistry II	5
PHYSIC 110 General Physics I	4
PHYSIC 111 General Physics II	4
<b>TOTAL UNITS</b>	<b>26</b>

*Students wishing to earn an A.A. with an emphasis in either Anatomy and Physiology or Microbiology must also complete:*

**Emphasis in Anatomy and Physiology:**

ANAT 150 Human Anatomy and Physiology	4
ANAT 151 Human Anatomy and Physiology	4
<b>TOTAL UNITS</b>	<b>8</b>

**Emphasis in Microbiology:**

MICRO 150 Medical Microbiology	5
MICRO 247A Special Problems in Microbiology	(2)
OR	
MICRO 102 Introductory Microbiology	(4)
<b>TOTAL UNITS</b>	<b>7-9</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 GENERAL BIOLOGY 4 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester and*

*Laboratory: Minimum 48 hours per semester*

Study of the biological principles involved in cellular biology, human anatomy and physiology, animal and plant structure and function, genetics, evolution and ecology. The use of the scientific method to gather and evaluate information and form conclusions regarding living organisms is also covered. (Course designed for students not majoring in biology)

**119 EXPLORING BIOLOGY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Introduction to the nature of life from the simplest single-celled organisms to complex plants and animals and human beings, describes the subject matter in biology, examines the scientific method and considers both its promises and limitations. Students will gain understanding of and appreciation for the natural world.

**123 ECOLOGY AND ENVIRONMENT 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the basic concepts of ecology including the physical environment, ecosystems, energy production and transfer, and the impact of humans on ecosystems. Environmental considerations include renewable and non-renewable energy, food resources, pest control, waste management, maintenance of air and water quality, sustaining the biodiversity of ecosystems, global climate, and political and economic considerations.

**130 CELL AND MOLECULAR BIOLOGY 4 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: CHEM 101*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Study of the principles of molecular and cell biology, with emphasis on cell structure, genetics, cellular respiration, photosynthesis, synthetic processes, and the role of physiology in maintaining homeostasis.

**131 POPULATIONS AND ORGANISMS 4 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester and*

*Laboratory: Minimum 48 hours per semester*

Study of classification, development, physiology and regulation at the level of the organism. Other topics are population dynamics, community ecology, evolution, and population genetics.

**SPECIAL PROBLEMS IN BIOLOGY**

**246AB**  
**247AB**  
**248AB**

**1 UNIT**  
**2 UNITS**  
**3 UNITS**

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: BIOL 100*

*Laboratory: Minimum 48-144 hours per semester*

Independent projects for selected students with a special interest in biology; assigned problems will involve both library and laboratory work.

# BUSINESS ADMINISTRATION

## (BUSAD)

Department: Business  
 Dean: Donna Ferracone, M.A.  
 Liaison Counselor: John Gist, M.S.

**ASSOCIATE OF ARTS DEGREE**  
**BUSINESS ADMINISTRATION**

REQUIRED COURSES:		UNITS
BUSAD 100	Introduction to Business	3
BUSAD 200	Business Management	3
BUSAD 210	Business Law	3
BUSAD 230	Using Computers for Business	3
ACCT 210	Principles of Accounting	3
ACCT 211	Principles of Accounting Computer Laboratory	1
MARKET 100	Marketing Principles	3
<b>TOTAL UNITS</b>		<b>19</b>

**BUSINESS MANAGEMENT CERTIFICATE**

The objective of this certificate program is to provide entry-level, marketable employment skills to equip the student with a basic understanding of the terminology and basic concepts/procedures used in business, and to acquaint the student with various sub-functions within the overall career field of business. Completion of the certificate program will prepare the student for entry-level employment in a variety of related occupations including supervision, small business ownership, and management trainee.

**Admission:** Open to all students. Registration is limited to class size restrictions.

Certificate requirements include the completion of 5 core courses (no more than 1 course from each group) and the completion of 6 specialty courses.

CORE COURSES		
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<b>1.</b>		
ACCT 210	Principles of Accounting	(3.0)
ACCT 211	Principles of Accounting Computer Laboratory	(1.0)
<b>OR</b>		
ACCT 205	Bookkeeping	(3.0)
<b>2.</b>		
MARKET 100	Marketing Principles	3.0
<b>3.</b>		
BUSAD 100	Introduction to Business	3.0
<b>4.</b>		
ECON 200	Principles of Macroeconomics	(3.0)
<b>OR</b>		
ECON 201	Principles of Microeconomics	(3.0)
<b>5.</b>		
BUSAD 053	Business Computations	(3.0)
<b>OR</b>		
MATH 108	Statistics	(4.0)
<b>6.</b>		
Computer Language Course		3.0

REQUIRED SPECIALTY COURSES		
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BUSAD 200	Business Management	3.0
BUSAD 105	Small Business Management	3.0
BUSAD 210	Business Law	3.0
BUSAD 230	Using Computers in Business	3.0
ACCT 220	Principles of Accounting	3.0
ACCT 221	Principles of Accounting Computer Laboratory	1.0
<b>TOTAL</b>		<b>31-33</b>

**RETAIL MANAGEMENT CERTIFICATE**

The objective of this certificate program is to give students a foundation for a career in the retail management field. Some of the activities involved in retailing are selection and buying of merchandise, marketing, and product displays, selling, inventory control, customer relations and pricing. The student usually enters the retailing field as a clerk or cashier and advances in the following manner: Assistant Manager, Manager, and Upper Management.

**Admission:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 31 units qualifies the student for the Retail Management Certificate

REQUIRED COURSES		
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BUSAD 053	Business Computations	3.0
BUSAD 103	Human Resources Management	3.0
BUSAD 145	Business English Communications	4.0
BUSAD 155	Human Relations in the Workplace	2.0
BUSAD 200	Business Management	3.0
BUSAD 230	Using Computers for Business	3.0
ACCT 210	Principles of Accounting	3.0
ACCT 211	Principles of Accounting Computer Laboratory	1.0
MARKET 100	Marketing Principles	3.0
MARKET 106	Retail Management	3.0
SPEECH 100	Elements of Public Speaking	3.0
<b>TOTAL</b>		<b>31</b>

Contact the Admission's Office to apply for a certificate. If you wish to participate in the Graduation Ceremony, contact the Program Development Office at 389-3344 by March 1, 2004.

**053 BUSINESS COMPUTATIONS 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Emphasis on practical business application of mathematics in the areas of accounting, marketing, finance, including payroll, invoicing, insurance, taxes, depreciation, stocks, bonds, annuities, and management analysis.

**100 INTRODUCTION TO BUSINESS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of the business field; provides a background in business and serves as the basic beginning college course in business subjects.

**103 HUMAN RESOURCES MANAGEMENT 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Introduction to the management of human resources and an understanding of the impact and accountability to the organization in terms of human resource activities. Global human resource strategies, social and organizational realities, legal implications affecting people at work, union/non-union practices, comparable work, employee compensation and benefits, and employee rights.

**105 SMALL BUSINESS MANAGEMENT 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

This course provides a background and hands-on experience in the field of entrepreneurship and a foundation for all business majors.

**155 HUMAN RELATIONS IN THE WORKPLACE 2 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

Examination of the organizational behavior techniques necessary for developing harmony and cooperation and for improving interpersonal effectiveness on the job. This course will explore such issues as workforce diversity, teamwork, and empowerment.

**198 BUSINESS ADMINISTRATION  
WORK EXPERIENCE 2 - 4 UNITS**

*CSU\*, Associate Degree Applicable*

*Prerequisite: Enrolled in Business Administration occupational program and working at a job directly related to student's major*

*Corequisite: Enrolled in at least 7 units, including this Work Experience course*

*Work Experience: 150-300 hours Paid Employment  
120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**200 BUSINESS MANAGEMENT 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: BUSAD 100 or equivalent*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Concepts and applications of successful functions including planning, organizing, controlling, and staffing. Current applications are examined and evaluated through media support and computer simulation.

**210 BUSINESS LAW 3 UNITS**

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Principles of law and use of cases as applied to business, and specifically to contracts, principal and agent, employment, negotiable instruments, principal and surety, insurance, bailments, sales partnerships, corporations, security devices, trusts and estates and governmental regulations.

**230 USING COMPUTERS FOR BUSINESS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Fundamentals of information systems and software applications. Knowledge of essential computer concepts and technologies. Emphasis on application of Windows techniques and hands-on experience producing contextually accurate information with word processing, spreadsheet, database, presentation graphics, desktop publishing, and e-mail software. Introduction to creating a Web page with hyperlinks. Integration of documents in a multi-user client-server environment and over the Internet.

# CHEMISTRY (CHEM)

Department: Biological Sciences and Chemistry  
 Department Head: Lisa Shimeld, M.S.  
 Faculty: Kelly Boebinger, M.A.  
 Kim Salt, Ph.D.

## ASSOCIATE OF SCIENCE DEGREE CHEMISTRY

REQUIRED COURSES:	UNITS
CHEM 150 General Chemistry I	5
CHEM 151 General Chemistry II	5
CHEM 212 Organic Chemistry I	4
CHEM 213 Organic Chemistry II	4
PHYSIC 110 General Physics I*	4
PHYSIC 111 General Physics II*	4
<b>TOTAL UNITS</b>	<b>26</b>

\*Students may substitute **PHYSIC 200 and 201**; highly recommended for those transferring to a four year institution.

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

## 087 PROBLEM SOLVING AND STUDY SKILLS FOR CHEMISTRY 1 UNIT

*Associate Degree Applicable*

*Prerequisite: MATH 090 or eligibility for MATH 095*

*Corequisite: CHEM 101*

*Lecture: Minimum 16 hours per semester*

Discussion and problem solving sessions to be taken in conjunction with CHEM 101. A review of study skills and techniques for mastery of chemistry principles and test taking strategies. Algebra review with an emphasis on how to use mathematics and algebra to solve chemistry problems. Builds off of CHEM 101 material. Offered for Credit or No Credit only.

## 101 INTRODUCTION TO CHEMISTRY 4 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: MATH 090 or equivalent*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to college chemistry, with an emphasis on the general principles of chemistry, including critical thinking, analysis and problem solving in chemistry. Topics covered include but are not limited to, the study of matter and its properties, measurements, reactions, molecular structures, physical and chemical properties and laboratory techniques. \* No UC credit granted if taken after CHEM 150.

## 102 INTRODUCTION TO ORGANIC CHEMISTRY 4 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: CHEM 101 or CHEM 150 or equivalent*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to college organic chemistry, with an emphasis on the fundamental principles of organic chemistry. Topics covered include the study of organic compounds, nomenclature, properties, reactions, biochemistry and laboratory techniques. \* No UC credit granted if taken after CHEM 212.

## 150 GENERAL CHEMISTRY I 5 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: MATH 095 with a C or better or equivalent*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 96 hours per semester*

First semester of a two semester general chemistry sequence. A requirement for many science majors, the course is a study of the fundamental principles of chemistry. Students are taught the application of these principles with special significance placed on chemical computation. Topics include: atomic structure, bonding, the periodic table, stoichiometry, chemical reactions, and nomenclature (the naming of chemicals). As with the lecture portion of the class, the laboratory component is both qualitative and quantitative in scope. Critical thinking and writing, measurement, identification, and analysis skills are emphasized. The course meets requirements of science majors as well as pre-dental, pre-medical, pre-veterinary, and pre-engineering majors.

## 151 GENERAL CHEMISTRY II 5 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: CHEM 150 with a grade of C or better or equivalent*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 96 hours per semester*

This course is a continuation of CHEM 150. This is a study of fundamental principles of chemistry and their applications. This course will cover such topics as kinetics, equilibrium, acids and bases, thermodynamics, electrochemistry, nuclear reactions, and chemistry of coordination compounds. The laboratory will include a variety of experiments to supplement and reinforce class work. The course meets requirements of chemistry, biology, physics, pre-dental, pre-medical, pre-veterinary, and pre-engineering majors.

## 212 ORGANIC CHEMISTRY I 4 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: CHEM 151 with a C or better*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

First semester of a two semester organic chemistry sequence. Study of modern organic chemistry including structure, nomenclature, reactivity, synthesis, and reaction mechanisms. Spectroscopy and modern theoretical concepts studied. Lab techniques of purification, isolation, synthesis reactions, and spectroscopic analysis.

**213 ORGANIC CHEMISTRY II****4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: CHEM 212 with a C or better**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 48 hours per semester*

Second semester of a two semester organic chemistry sequence. Study of modern organic chemistry including structure, nomenclature, reactivity, synthesis, and reaction mechanisms. Lab techniques of purification, isolation, synthesis reactions, and spectroscopic analysis.

## CHILD DEVELOPMENT (CD)

Department: Child Development and Education  
 Department Head: Jean Searle-Grassick, M.A.  
 Faculty: JoAnn Jones, M.Ed.  
 Meridyth McLaren, M.S.  
 Jean Searle-Grassick, M.A.  
 Liaison Counselor: Judi Harrington, M.A.

### ASSOCIATE OF ARTS DEGREE CHILD DEVELOPMENT

REQUIRED COURSES:	UNITS
CD 100 Introduction to Child Development	3
CD 105 Child Growth and Development	3
CD 112 Programs and Practices in Child Development	3
CD 126 Child, Family and Community	3
CD 205X2 Child Growth and Development Laboratory	4

*Select at least two courses from the following:*

CD 115 Health, Welfare and Nutrition for Children	(3)
CD 130 Music and Movement for Children	(3)
CD 131 Developmental Art for Children	(3)
CD 132 Creative Experiences for Children*	(3)
CD 133 Creative Science and Math Activities for Children	(3)
CD 134 Language and Listening, Literacy and Literature Experiences for Children*	(3)
CD 136 Creative Art Activities for Children	(3)
CD 185 Infant/Toddler Growth and Development	(3)
CD 186 Infant/Toddler Activities	(3)
<b>TOTAL UNITS</b>	<b>22</b>

\*Highly recommended.

### RECOMMENDED COURSES: UNITS

*It is highly recommended that students select four CD electives from the following:*

CD 101 Parent Child Interaction	(3)
CD 115 Health, Welfare and Nutrition for Children	(3)
CD 116X20 Pediatric CPR, First Aid and Safety for Children	(2)
CD 130 Music and Movement for Children	(3)
CD 131 Developmental Art for Children	(3)
CD 132 Creative Experiences for Children	(3)
CD 133 Creative Science and Math Activities for Children	(3)
CD 134 Language and Listening, Literacy and Literature Experiences for Children	(3)
CD 136 Creative Art Activities for Children	(3)
CD 137 Play and Materials in Early Learning	(3)
CD 175 Home Day Care Practices, Programs and Business Principles	(3)
CD 185 Infant/Toddler Growth and Development	(3)
CD 186 Infant/Toddler Activities	(3)
CD 205X2 Child Growth and Development Laboratory	(4)
CD 244 Children with Special Needs	(3)
CD 270 Mentor Teacher/Adult Supervision	(3)
CD 271 Administration: Management and Organization of Child Development	(3)
CD 272 Administration: Human Relations in Child Development Programs	(3)

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

### CHILD HOME DAY CARE PROVIDER CERTIFICATE

**Admission:** Open to all students. Registration is limited to class size restrictions.

**Completion of the following 11 units qualifies the student for the Child Home Day Care Provider Certificate.**

#### REQUIRED COURSES

CD 105 Child Growth and Development	3.0
CD 132 Creative Experiences for Children	3.0
CD 175 Home Day Care Practices, Programs and Business Principles	3.0
CD 116X20 Pediatric CPR, First Aid and Safety for Children	2.0
<b>TOTAL</b>	<b>11.0</b>

**ASSOCIATE TEACHER CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 16 units qualifies the student for the Associate Teacher Certificate. See Child Development Department for State Licensing requirements.

**REQUIRED COURSES**

CD 100	Introduction to Child Development	3.0
CD 105	Child Growth and Development	3.0
CD 112	Principles and Practices in Child Development	3.0
CD 126	Child, Family and the Community	3.0

**Laboratory OR Work Experience with Young Children**

CD 205X2	Child Growth and Development Laboratory	4.0
<b>TOTAL</b>		<b>16.0</b>

**TEACHER CERTIFICATE**

**Admission:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 28 units qualifies the student for the Teacher Certificate. See Child Development Department for State Licensing requirements.

**REQUIRED COURSES**

CD 100	Introduction to Child Development	3.0
CD 105	Child Growth and Development	3.0
CD 112	Principles and Practices in Child Development	3.0
CD 126	Child, Family, and the Community	3.0
CD 205X2	Child Growth and Development Laboratory	4.0

**4 Courses from the Following List:**

CD 101	Parent Child Interaction	(3.0)
CD 115	Health, Welfare and Nutrition for Children	(3.0)
CD 130	Music and Movement for Children	(3.0)
CD 131	Developmental Art for Children	(3.0)
CD 132	Creative Experiences for Children	(3.0)
CD 133	Creative Science and Math Activities for Children	(3.0)
CD 134	Language and Listening, Literacy and Literature Experiences for Children	(3.0)
CD 136	Creative Art Activities for Children	(3.0)
CD 137	Play and Materials in Early Learning	(3.0)

CD 175	Home Day Care Practices, Programs, and Business Principles	(3.0)
CD 185	Infant/Toddler Growth and Development	(3.0)
CD 186	Infant/Toddler Activities	(3.0)
<b>TOTAL</b>		<b>28.0</b>

Students must also have 16 General Education units and experience to apply for State Child Development Permit.

**MASTER TEACHER CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 37 units qualifies the student for the Master Teacher Certificate. See Child Development Department for State Licensing requirements.

**REQUIRED COURSES**

CD 100	Introduction to Child Development	3.0
CD 105	Child Growth and Development	3.0
CD 112	Principles and Practices in Child Development	3.0
CD 126	Child, Family, and the Community	3.0
CD 270	Mentor Teacher/Adult Supervision	3.0
CD 205X2	Child Growth and Development Laboratory	4.0

6 or 7 units from the following list to complete at least one specialization:

Note: A specialization consists of completing a pair of courses (6 or 7 units) from the topics below.

**MUSIC SPECIALIZATION**

CD 130	Music and Movement for Children	(3.0)
<b>AND</b>		
MUSIC 100	Fundamental Skills in Music	(3.0)

**ART SPECIALIZATION**

CD 131	Developmental Art for Children	(3.0)
<b>AND</b>		
CD 136	Creative Art Activities for Children	(3.0)

**LANGUAGE AND LITERACY SPECIALIZATION**

CD 134	Language and Listening, Literacy and Literature Experiences for Children <b>AND</b>	(3.0)
ENGL 155	Children's Literature	(3.0)

**INFANT/TODDLER SPECIALIZATION**

CD 185	Infant/Toddler Growth and Development <b>AND</b>	(3.0)
CD 186	Infant/Toddler Activities	(3.0)

**SPECIAL NEEDS SPECIALIZATION**

CD 244	Children with Special Needs <b>AND</b>	(3.0)
ASL 101	American Sign Language I	(4.0)

**4 Courses from the Following List (Selected Courses can not be Included in your Specialization)**

CD 101	Parent Child Interaction	(3.0)
CD 115	Health, Welfare, and Nutrition for Children	(3.0)
CD 130	Music and Movement for Children	(3.0)
CD 131	Developmental Art for Children	(3.0)
CD 132	Creative Experiences for Children	(3.0)
CD 133	Creative Science and Math Activities for Children	(3.0)
CD 134	Language and Listening, Literacy and Literature Experiences for Children	(3.0)
CD 136	Creative Art Activities for Children	(3.0)
CD 137	Play and Materials in Early Learning	(3.0)
CD 175	Home Day Care Practices, Programs, and Business Principles	(3.0)
CD 185	Infant/Toddler Growth and Development	(3.0)
CD 186	Infant/Toddler Activities	(3.0)
<b>TOTAL</b>		<b>37.0 OR 38.0</b>

**SITE SUPERVISOR CERTIFICATE**

**Admissions:** Open to all Students. Registration is limited to class size restrictions.

**Completion of the following 37 units qualifies the student for the Site Supervisor Certificate. See Child Development Department for State Licensing requirements.**

**REQUIRED COURSES**

CD 100	Introduction to Child Development	3.0
CD 105	Child Growth and Development	3.0
CD 112	Principles and Practices in Child Development	3.0
CD 126	Child, Family, and the Community	3.0
CD 270	Mentor Teacher/Adult Supervision	3.0
CD 271	Administration: Management and Organization of Child Development	3.0
CD 272	Administration: Human Relations in Child Development Programs	3.0
CD 205X2	Child Growth and Development Laboratory	4.0

**4 Courses from the Following List:**

CD 101	Parent Child Interaction	(3.0)
CD 115	Health, Welfare, and Nutrition for Children	(3.0)
CD 130	Music and Movement for Children	(3.0)
CD 131	Developmental Art for Children	(3.0)
CD 132	Creative Experiences for Children	(3.0)
CD 133	Creative Science and Math Activities for Children	(3.0)
CD 134	Language and Listening, Literacy and Literature Experiences for Children	(3.0)
CD 136	Creative Art Activities for Children	(3.0)
CD 137	Play and Materials in Early Learning	(3.0)
CD 175	Home Day Care Practices, Programs, and Business Principles	(3.0)
CD 185	Infant/Toddler Growth and Development	(3.0)
CD 186	Infant/Toddler Activities	(3.0)
<b>TOTAL</b>		<b>37.0</b>

**Students must also have 16 General Education units and experience to apply for the State Child Development Permit.**

**Contact the Admission's Office to apply for a certificate. If you wish to participate in the Graduation Ceremony, contact the Program Development Office at 389-3344 by March 1, 2004.**

**081 PARENTING THE INFANT****3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

This course presents an introduction to the basic development of the infant. The focus is on parenting roles and responsibilities for nurturing and caring for the infant. It specifically identifies current trends and issues concerning the development and parenting of the infant.

**100 INTRODUCTION TO CHILD DEVELOPMENT 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Overview of early childhood programs, their histories, philosophies and developmentally appropriate practices, methods of guidance and discipline. Students will become familiar with licensing and regulations for state, federal and private programs. Reviews philosophies of educating young children and learning, while examining developmentally appropriate practices, including the influence of culture and inclusive environments on the developing child. Explores career paths and professional growth.

**101 PARENT CHILD INTERACTION****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Review of the concept of human development and the interactions within the biological, psychological, social and cultural phenomena and their relationship to children's and parent's attitudes and behavior. Family dynamics, communication and discipline are explored.

**105 CHILD GROWTH AND DEVELOPMENT 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

This course presents a study of human development from conception through adolescence within cultural and family contexts. It examines cognitive, physical, social and emotional development, both typical and atypical. Students will be introduced to the theories, research and applications that constitute the field of child development by examining both traditional areas of the field and more recent innovations. Observational study of children included.

**112 PROGRAMS AND PRACTICES IN CHILD DEVELOPMENT****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

This course gives a general overview of curriculum design for early childhood programs. Includes planning, implementation and evaluation of curriculum and programs. Students will observe the interaction of play and development of the whole child. Organization of materials and resources are explored.

**115 HEALTH, WELFARE, AND NUTRITION FOR CHILDREN****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Training in health, nutrition, disaster preparedness, children with special needs, child abuse identification and prevention, and caring for the mildly ill child. (This course meets the recommended training requirements of county and state licensing agencies.)

**116X20 PEDIATRIC CPR, FIRST AID AND SAFETY FOR CHILDREN****2 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 24 hours per semester*

Training and certification in pediatric CPR, pediatric first aid, prevention of the spread of infectious disease, immunizations, child safety, and injury prevention. (Meets county and state licensing requirements for child care workers.) This course is also offered as EMS 116X20. This course may be taken twenty times.

**126 CHILD, FAMILY AND COMMUNITY****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

This course examines the effects of family and community on a child's development. Interaction between child, family, school, peers, media and community are explored. Emphasis on ethnic diversity, social class, gender roles and their impact on family, behavior, values, morals and attitudes. Explores the value of communication, the development of child advocacy skills and the ability to use community resources to empower families and children.

**130 MUSIC AND MOVEMENT FOR CHILDREN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Study of music and movement growth and development of children. Philosophy, theory, technique and application of musical concepts used with children are explored. The basic elements of music are investigated with an emphasis on planning and facilitating developmentally appropriate music and movement experiences with children.

**131 DEVELOPMENTAL ART FOR CHILDREN****3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Study of the artistic and aesthetic growth and development of children. Exploration of philosophy, theory and application of art concepts. Investigate the basic elements of art with an emphasis on how to plan, prepare and implement a developmentally appropriate art experience for children.

**132 CREATIVE EXPERIENCES FOR CHILDREN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

In-depth study of creativity in children, including the rationale for creative development. Philosophy and theories of the general humanities are investigated, including art, music, movement, and drama as facilitators for developing basic skills, human interaction and aesthetic appreciation in children.

**133 CREATIVE SCIENCE AND MATH ACTIVITIES FOR CHILDREN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Study of basic scientific theories and practices for teaching young children simple methods and processes of science and math. Classifying, simple reasoning, observing, making hypotheses, testing, generalizing cause and effect, using energy, matter and living things are explored. Fundamental mathematical concepts such as one to one correspondence, number sense and counting, sets and classifying, parts and wholes, basic measurements, ordering and patterning are also explored.

**134 LANGUAGE AND LISTENING, LITERACY AND LITERATURE EXPERIENCES FOR CHILDREN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Study and application of whole language, listening, literary and literature experiences for children. Use of conversations, literature, storytelling, flannel boards, finger plays, dramatic play and other varied media. Developmentally appropriate whole language reading and writing activities for children.

**136 CREATIVE ART ACTIVITIES FOR CHILDREN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

Study of artistic expression in children. Overview of artistic abilities in children. Includes in-depth exploration of diverse artistic mediums and materials used with children. Emphasis on planning, preparing and implementing developmentally appropriate art experiences for children ages 2 through 10.

**137 PLAY AND MATERIALS IN EARLY LEARNING 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CD 105**Lecture: Minimum 48 hours per semester*

In-depth study of the dynamics of play and play materials for children including the rationale for play as a facilitator of learning. History and philosophy of play, current theories and their relationships to materials as they are utilized in creating and implementing play environments.

**175 HOME DAY CARE PRACTICES, PROGRAMS AND BUSINESS PRINCIPLES 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

An introduction to in-home child care business practices, general development of children, and California licensing practices. Focuses on advertising, fees, collection and record keeping systems for home day care, childcare food program regulations and licensing standards.

**185 INFANT/TODDLER GROWTH AND DEVELOPMENT 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of physical, cognitive, social, emotional and creative development of children ages birth to 36 months. Includes observing and keeping records, parent issues, accessing needs and services, and developing appropriate practices with infants and toddlers. Satisfies licensing training requirements for infant/toddler child development workers.

**186 INFANT/TODDLER ACTIVITIES 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Course focuses on preparing and facilitating developmentally appropriate activities and curriculum for infants and toddlers ages birth to 36 months. Satisfies licensing training requirements for infant/toddler child development workers.

**198 CHILD DEVELOPMENT WORK EXPERIENCE 2 - 4 UNITS***CSU\*, Associate Degree Applicable**Prerequisite: Enrolled in Child Development occupational program and working at a job directly related to student's major**Corequisite: Enrolled in at least 7 units, including this Work Experience course**Work Experience: 150-300 hours Paid Employment  
120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**205X2 CHILD GROWTH AND DEVELOPMENT LABORATORY 4 UNITS***CSU, Associate Degree Applicable**Prerequisite: CD 105**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 120 hours per semester*

Supervised experience and participation in a group program for preschool children at the CHC Child Development Studies Center. Emphasis is on curriculum planning and evaluation, discipline, guidance techniques, instructional method, cooperative relationships with staff, parents, and children, and professional ethics. (Required for CHC Child Development Certificates for an Associate Teacher, Teacher, Master Teacher and Site Supervisor.) This course may be taken two times.

**244 CHILDREN WITH SPECIAL NEEDS 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: CD 105*

*Lecture: Minimum 48 hours per semester*

Study of the special needs child to include the entire spectrum from gifted to handicapped during the formative years. To aid the parent or professional worker in teaching social, emotional, physical and cognitive curricula to special needs children in an inclusive setting. A typical development is explored. Special emphasis is the adjustment of the child to home, school and community.

**270 MENTOR TEACHER/ADULT SUPERVISION 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: CD 105*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Methods and principles of supervising student teachers in early childhood educational settings. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff. (A required course for Master Teacher level of the Child Development Permit.)

**271 ADMINISTRATION: MANAGEMENT AND ORGANIZATION OF CHILD DEVELOPMENT PROGRAMS 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: CD 105, CD 126 and one of the following curriculum classes: CD 130 through CD 137*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Budgeting, licensing, planning, organizing and managing a variety of programs for young children. The administrator's role, site development, ongoing organization, personnel program components, working with staff, parents and volunteers will be included in the course. (Designed to meet California State Child Development Permit requirements for a Site Supervisor and Title 22 requirements for a Child Care Center Director.)

**272 ADMINISTRATION: HUMAN RELATIONS IN CHILD DEVELOPMENT PROGRAMS 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisites: CD 105, CD 126 and one of the following curriculum classes: CD 130 through CD 137*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 48 hours per semester*

This course explores the overall operations and human relations aspect of administering children's programs. Funding, business management practices, community relations, professional responsibilities and growth, labor relations and staff management will be addressed. (Designed to meet California State Child Development Permit requirements for Site Supervisor.)

**295 ELEMENTARY LABORATORY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: Acceptance into program*

*Departmental Recommendation: CD 105*

*Lecture: Minimum 16 hours per semester*

*Laboratory: Minimum 96 hours per semester*

This course offers supervised experience and participation in an elementary school setting. Emphasis is on understanding the role of the elementary school teacher, instructional methods, aiding literacy, cooperative relationships with staff, parents, children and professional ethics of teaching. This class is degree applicable and transferable. This course transfers to CSU and is required for the Liberal Studies/Education program at CSUSB.

# COMPUTER INFORMATION SYSTEMS (CIS)

Department: Information Technologies  
 Dean: Donna Ferracone, M.A.  
 Faculty: Michael Davenport, B.S.  
 Denise Hoyt, M.A.  
 Catherine Pace-Pequeno, M.P.A.  
 Liaison Counselor: Robert McAtee, M.A.

**ASSOCIATE OF SCIENCE DEGREE  
 COMPUTER INFORMATION SYSTEMS**

REQUIRED COURSES:	UNITS
CIS 101 Introduction to Computers and Information Technology	3
CIS 103 Programming in Visual Basic OR	(3)
CIS 114 C++ Programming	(3)
CIS 130 Hardware and Information Technology	3
CIS 140 Networking Fundamentals (Cisco Networking Academy) OR	(3.5)
CIS 150 Networking Essentials with TCP/IP	(3)

*Select nine additional units from courses in one of the following tracks:*

**Emphasis in Network Technician:**

CIS 109 Operating Systems and Environments	(3)
CIS 131 Help Desk	(3)
CIS 151 Network Client Administration	(3)
CIS 152 Network Server Administration	(3)

**Emphasis in Hardware Technician:**

CIS 109 Operating Systems and Environments	(3)
CIS 131 Help Desk	(3)
CIS 152 Network Server Administration	(3)

**Emphasis in Programming:**

CIS 113	Java and J++ Programming	(3)
CIS 115	Programming in C	(3)
CIS 116	C++ Programming II	(3)
CIS 117	Scripting	(3)
CIS 203	Advanced Visual Basic	(3)
MATH 151	Precalculus	(4)
MATH 250	Single Variable Calculus I	(4)
MATH 251	Single Variable Calculus II	(4)
MATH 252	Multivariable Calculus	(5)
MATH 254	Introduction to Ordinary Differential Equations	(4)

**Emphasis in Webmaster:**

CIS 111	Web Page Programming and Design	(3)
CIS 117	Scripting	(3)
CIS 118	Web Site Management	(3)
CIS 160	Authoring Accessible Web Pages	(2)
CIS 161	Web Design and Programming Using Dreamweaver	(2)
CIS 163	Introduction to Photoshop	(1.5)
CIS 168	E-Commerce Programming and Design	(3)
<b>TOTAL UNITS</b>		<b>21-21.5</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

**CISCO CERTIFIED NETWORK ASSOCIATE CERTIFICATE**

**Admission:** Open to all students. Registration is limited to class size restrictions.

Completion of 14 units qualifies the student for the Cisco Certified Network Associate Certificate.

**REQUIRED COURSES**

CIS 140	Networking Fundamentals	3.5
CIS 141	Basic Routing Cisco Semester II	3.5
CIS 142	Fundamentals of LANs Cisco Semester III	3.5
CIS 143	Fundamentals of WANS Cisco Semester IV	3.5
<b>TOTAL</b>		<b>14.0</b>

**CISCO CERTIFIED NETWORK PROFESSIONAL CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of 14 units qualifies the student for the Cisco Certified Network Professional Certificate.

**REQUIRED COURSES**

CIS 144	Advanced Routing – LANs Cisco Semester V	3.5
CIS 145	Advanced WAN – Cisco Semester VI	3.5
CIS 146	LAN Switching – Cisco Semester VII	3.5
CIS 147	Network Troubleshooting – Cisco Semester VIII	3.5
<b>TOTAL</b>		<b>14.0</b>

**COMPUTER HARDWARE TECHNICIAN CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of 12 units qualifies the student for the Computer Hardware Technician Certificate.

**REQUIRED COURSES**

CIS 130	Hardware and Information Technology	3.0
CIS 131	Help Desk	3.0
CIS 150	Network Essentials with TCP/IP	3.0
CIS 190C	Hardware Technician Internship	3.0
<b>TOTAL</b>		<b>12.0</b>

**COMPUTER INFORMATION SYSTEMS CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of 24 units qualifies the student for the Computer Information Science Certificate

CIS 101	Introduction to Computers and Information Technology	3.0
CIS 103	Programming in Visual Basic	3.0
CIS 105	Database Concepts and Design	3.0
CIS 109	Operating Systems and Environments	3.0
CIS 111	Web Page Programming and Design	3.0
CIS 113	Java and J++ Programming	3.0
CIS 114	Programming in C++I	3.0
CIS 115	Programming in C	3.0
CIS 116	Programming in C++II	3.0
CIS 117	Scripting	3.0
CIS 118	Web Site Management	3.0
CIS 130	Hardware and Information Technology	3.0
CIS 131	Help Desk	3.0
CIS 150	Network Essentials with TCP/IP	3.0
CIS 151	Network Client Administration	3.0
CIS 152	Network Server Administration	3.0
CIS 171	Introduction to Robotics	3.0
CIS 203	Advanced Visual Basic	3.0

**NETWORK TECHNICIAN CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions

**Completion of 15 units qualifies the student for the Network Technician Certificate.**

**REQUIRED COURSES**

CIS 130	Hardware and Information Technology	3.0
CIS 150	Network Essentials with TCP/IP	3.0
CIS 151	Network Client Administration	3.0
CIS 152	Network Server Administration	3.0
CIS 190B	Network Administration Internship	3.0
	<b>TOTAL</b>	<b>15.0</b>

**PROGRAMMING CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

**Completion of 15 units qualifies the student for the Programming Certificate.**

CIS 103	Programming is Visual Basic	3.0
CIS 113	Java and J++ Programming	3.0
CIS 114	C++ Programming I	3.0
CIS 115	Programming in C	3.0
CIS 116	C++ Programming in II	3.0
CIS 117	Scripting	3.0
CIS 203	Advanced Visual Basic	3.0

**WEBMASTER CERTIFICATE**

**Admissions:** Open to all students. Registration is limited to class size restrictions.

**Completion of 14 units qualifies the student for the Webmaster Certificate**

CIS 111	Web Page Programming and Design	3.0
CIS 117	Scripting	3.0
CIS 118	Web Site Management	3.0
CIS 160	Authoring Accessible Web Pages	2.0
CIS 163	Introduction to PhotoShop	1.5
CIS 168	E-Commerce Programming and Design	3.0
CIS 190A	Web Master Internship	3.0

**Contact the Admission's Office to apply for a certificate. If you wish to participate in the Graduation Ceremony, contact the Program Development Office at 389-3344 by March 1, 2004.**

**101 INTRODUCTION TO COMPUTER AND INFORMATION TECHNOLOGY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Introduction to computer and information technology including the history, terminology, components and operation of computer systems. Includes an overview and use of selected software applications including spreadsheets, and databases. Includes a program development using a high-level language. Discusses the impact of computers in society and the work place. No previous computer background required.

**103 PROGRAMMING IN VISUAL BASIC 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Introduction to standards and conventions of programming a graphical user interface using Visual Basic. Emphasis on understanding proper design, placement, and coding of the graphical features of the interface. Similarities and differences of Visual Basic and traditional programming languages will be explored. Microsoft Visual Basic will be utilized to develop programs.

**105 DATABASE CONCEPTS AND DESIGN 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: CIS 101*

*Lecture: Minimum 48 hours per semester*

Fundamentals of database concepts with an emphasis on the design and implementation of relational databases. Includes data querying, sorting, inserting, deleting, and report design and generation. Entity relationship diagrams, normalizing of database tables, implementing integrity rules, developing data-dictionaries and SQL (structured query language) will be emphasized.

**109 OPERATING SYSTEMS AND ENVIRONMENTS 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

An intensive study of three current operating systems to include Windows, DOS, and Unix/Linux as they relate to business users, personal users, and computer programmers in a hands-on environment. An emphasis on system components, functions, and commands to include disk file management, system utilities, command line prompt, text editor, communications accessories, graphics, data protection, printer control, desktop customization, memory management and hardware configuration.

**111 WEB PAGE PROGRAMMING AND DESIGN 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Introduction to web page design for personal users, business users and computer professionals. Introduces web page design, programming, and administration using HTML, DHTML, XHTML and scripting languages such as JavaScript and Visual Basic. Students will design, create, publish and maintain web pages.

**113 JAVA AND J++ PROGRAMMING 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to Internet-based, object-oriented programming using current programming languages such as Java and J++. Includes writing, debugging and running programs and applets in an interactive computer system to solve both general-purpose, business and interactive Web-based problems.

**114 C++ PROGRAMMING I 3 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to object oriented programming using the C++ programming language. Includes program development, debugging, and implementation of programs to solve numerical and non-numerical problems on an interactive computer system. Course topics will include: The C/C++ programming environment, program control structures, Functions, Classes, stream input/output, and array processing.

\*CIS 114 and 115, maximum UC credit one course.

**115 PROGRAMMING IN C 3 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Fundamentals of computer programming and problem solving using the C language. Includes writing, debugging, and running programs in an interactive computer system to solve both numerical and non-numerical problems. Microsoft C/C++ will be utilized to develop programs.

\*CIS 114 and 115, maximum UC credit one course.

**116 C++ PROGRAMMING II 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: CIS 114 or CIS 115**Lecture: Minimum 48 hours per semester*

Introduction to object oriented programming using the C++ programming language. Includes program development, debugging, and implementation of programs to solve numerical and non-numerical problems on an interactive computer system. Course topics will include: Functions, Classes, operator overloading, inheritance, polymorphism, file input/output, templates, and string handling.

**117 SCRIPTING 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 48 hours per semester*

Introduction to Web page scripting and programming using current scripting languages. Includes program development, debugging, and implementation of programs to enhance web pages. Course topics will include: Client-side and Server-side scripts, ASP and database integration.

**118 WEB SITE MANAGEMENT 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 48 hours per semester*

Introduction to Web site management and security. Includes management of server-side software, development of maintenance and security plans, server-side programming and existing web site updates and maintenance.

**124 VISUAL BASIC FOR APPLICATIONS 3 UNITS***Associate Degree Applicable**Prerequisite: CIS 101**Lecture: Minimum 48 hours per semester*

Introduction to Visual Basic for Applications Programming Language. Includes program development, debugging, and implementation of programs to solve numerical and non-numerical problems on an interactive computer system. Course topics will include VBA use in word processing, spreadsheet and database.

**125 C# PROGRAMMING I 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to object oriented programming using the C# programming language. Includes program development, debugging, and implementation of programs to solve numerical and non-numerical problems on an interactive computer system. Course topics will include: The C# programming environment, program control structures, Functions, Classes, stream input/output, and array processing.

**130 HARDWARE AND INFORMATION TECHNOLOGY 3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: CIS 101 and CIS 109**Lecture: Minimum 48 hours per semester.*

A hands-on course covering basic computer hardware, software, maintenance and training technologies. Certification type material will be presented in this course enabling students to understand the material as well as help them prepare to complete industry certification exams. Topics include hardware components, operating system functions, information systems maintenance, strategies for the organization, and end-user training options. Hands-on experience with different computer hardware, operating systems, and software utilities. Provides the fundamental foundation in preparation for industry certification.

**131 HELP DESK 3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: CIS 101 and CIS 130**Lecture: Minimum 48 hours per semester*

An introductory course covering basic computer Help Desk technology. Certification type material will be presented in this course enabling students to understand the material as well as help prepare them to complete the certification exams. Topics include using, administrating, deploying, supporting and troubleshooting end-user computer hardware and software, as well as providing a fundamental foundation in preparation for industry certification.

**140 NETWORKING FUNDAMENTALS  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

Semester I of the Cisco Certified Network Associate (CCNA) exam preparation program. This course is designed to teach students both current and emerging networking technologies and will help prepare them for employment or further education and training in the computer-networking field. Instruction includes, but is not limited to, local-area networks (LANs), wide-area networks (WANs), Opens System Interconnection (OSI) models, cabling, cabling tools, ethernet, Internet Protocol (IP) addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques to solve real world networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment.

**141 BASIC ROUTING CISCO SEMESTER II  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 140**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

Semester II of the Cisco Certified Network Associate (CCNA) exam preparation program. This course is designed to teach students both current and emerging networking technologies and will help prepare them for employment or further education and training in the computer-networking field. Instruction includes, but is not limited to, Opens System Interconnection (OSI) models, LANs, WANs, Transmission Control Protocol/Internet Protocol (TCP/IP), routers, router configuration, routing and routing protocols, internetwork open system (IOS) images and network troubleshooting. Particular emphasis is given to understanding the nature of and components of networks that make up LANs, WANs and the Internet. Students will become familiar with the use of command protocols that are used when configuring networks and will learn how to troubleshoot a 5-router topology.

**142 FUNDAMENTALS OF LANs CISCO SEMESTER III  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 141**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

Semester III of the Cisco Certified Network Associate (CCNA) exam preparation program. This course is designed to teach students both current and emerging networking technologies and will help prepare them for employment or further education and training in the computer-networking field. Includes a Threaded Case Study (TCS), which involves a school district that want to upgrade its networking system. Instruction includes, but is not limited to: a review of the OSI reference model, a study of the OSI layer function, LANs, Ethernet and virtual LANs (VLANs), LAN design, interior gateway routing protocol (IGRP), access control lists (ACLs), Novell Internet Packet Exchange (IPX), and network

management. Particular emphasis is given to students being able to demonstrate the ability to apply Semester I and II concepts to a network and to be able to explain how and why a particular strategy is employed. In addition, the students will learn appropriate methodologies for managing networks, with emphasis placed on clear and adequate documentation of the Network.

**143 FUNDAMENTALS OF WANs CISCO SEMESTER IV  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 142**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

Semester IV of the Cisco Certified Network Associate (CCNA) exam preparation program. This course is designed to teach students both current and emerging networking technologies and will help prepare them for employment or further education and training in the computer-networking field. In this semester, student's continue to work with the Threaded Case Study (TCS), which involves a school district that want to upgrade its networking system. Instruction, includes, but is not limited to, a review of local area network (LAN) switching, virtual LANs, LAN design, routing protocols, access lists, wide area networks (WANs), the OSI reference model, point-to-point protocols (PPPs), integrated services digital network (ISDN), dial-on-demand routing (DDR), frame relays and network managements. Particular emphasis is given to students being able to demonstrate the ability to apply Semesters I, II and III concepts to a network and to be able to explain how and why a particular strategy is employed. In addition, the students will prepare for the CCNA exam and have the option to prepare for the Network+ Certification exam.

**144 ADVANCED ROUTING-LANs CISCO SEMESTER V  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 143**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

One of four courses in the Cisco Certified Network Professional (CCNP) certification curriculum. CCNP Semester V focuses on advanced routing and teaches students how to install, configure and manage local and wide area networks and for medium to large networks. Upon completion of this course, students will be able to select and implement the appropriated Cisco IOS services required to build a scalable routed network. Instruction, includes, but is not limited to, selecting and configuring scalable IP addresses, implementing technologies to redistribute and support multiple, advanced, IP routing protocols such as OSPF, EIGRP and BGP, configuring access lists, and designing and testing edge router connectivity into a BGP network. This course is designed to help prepare students for the CCNP Advanced Routing exam.

**145 ADVANCED WANs-CISCO SEMESTER VI  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 144**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

One of four courses in the Cisco Certified Network Professional (CCNP) certification curriculum. CCNP Semester VI focuses on Remote Access and teaches students how to install and configure remote access links for medium to large networks. Upon completion of this course, students will be able to select and implement the appropriated Cisco IOS services required to implement any one of several remote access options. Instruction, includes, but is not limited to, configuring asynchronous connections, Point-to-point protocol (PPP) architecture, PPP protocol, callback, and compression, ISDN architecture, protocol layers, BRI and DDR, and configuring x.25, Frame Relay, and AAA. This course is designed to help prepare students for the CCNP Remote Access exam.

**146 LAN SWITCHING - CISCO SEMESTER VII  
(CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 144**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

One of four courses in the Cisco Certified Network Professional (CCNP) certification curriculum. CCNP Semester VII focuses on the technologies required to build campus networks using multi-layer switching technologies over high speed Ethernet. This course includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. Upon completion of this course, students will be able to implement the multiplayer switching. Instruction, includes, but is not limited to, fast Ethernet, gigabit Ethernet, VLAN basics, types, identification, and trunking protocol, Spanning Tree Protocol, MLS processes, and configuration, and Multicasting protocols, routing, and tasks. This course is designed to help prepare the students for the CCNP Switching exam.

**147 NETWORK TROUBLESHOOTING-CISCO SEMESTER  
VIII (CISCO NETWORKING ACADEMY) 3.5 UNITS***Associate Degree Applicable**Prerequisite: CIS 144**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 24 hours per semester*

One of four courses in the Cisco Certified Network Professional (CCNP) certification curriculum. CCNP Semester VIII focuses on developing the advanced skills necessary for successfully troubleshooting Cisco routers and Catalyst switches. Students are taught how to baseline and troubleshoot an environment using Cisco routers and switches for multi-protocol client hosts and servers connected with: Ethernet, Fast Ethernet, Token Ring, Serial, Frame Relay, and/or ISDN BRI. Instruction, includes, but is not limited to, OSI Layers 1, 2, and 3, TCP/IP, LAN switching, VLANs, Frame Relay, ISDN, Appletalk, Novell, IEGRP, OSPF, BGP. This course is designed to help prepare students for the CCNP Support exam.

**150 NETWORKING ESSENTIALS WITH TCP/IP 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: CIS 101 and CIS 109**Lecture: Minimum 48 hours per semester*

A hands-on course covering basic computer networking and TCP/IP technology. Certification type material will be presented in this course enabling students to understand the material as well as help prepare them to complete the certification exams. Topics include network components, network configuration, network troubleshooting, and TCP/IP. Includes hands-on experience with a computer network, network software, and TCP/IP configurations as well as provides the foundation necessary for students to sit for industry certification exams.

**151 NETWORK CLIENT ADMINISTRATION 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CIS 150**Lecture: Minimum 48 hours per semester*

A hands-on course covering basic computer network client administration technology. Certification type material will be presented in this course enabling students to understand the material as well as help prepare them to complete the certification exams. Topics include using, administrating, deploying, and troubleshooting network client software, and TCP/IP. Includes hands-on experience with a computer network, network client software, and TCP/IP configurations as well as provides the fundamental foundation in preparation for industry certification.

**152 NETWORK SERVER ADMINISTRATION 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CIS 150**Lecture: Minimum 48 hours per semester*

A hands-on course covering basic computer network Server administration technology. Certification type material will be presented in this course enabling students to understand the material as well as help prepare them to complete the certification exams. Topics include using, administrating, deploying, and troubleshooting network Server software, and TCP/IP. Includes hands-on experience with a computer network, network Server software, and TCP/IP configurations as well as provides the fundamental foundation in preparation for industry certification.

**160 AUTHORING ACCESSIBLE WEB PAGES 2 UNITS***Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 32 hours per semester*

This course provides additional expertise to students interested in furthering their skills in web page design and web site management by improving their skill set to include the design of web pages and sites accessible to individuals with disabilities. Students will develop a thorough understanding of the American's with Disabilities Act (ADA) and how the law pertains to web page/site development. Familiarization and use of tools, techniques and strategies that are used to comply with Section 508 of the ADA are the focus of the course.

**161 WEB DESIGN AND PROGRAMMING USING DREAMWEAVER 2 UNITS***Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 32 hours per semester*

In depth study of web site design and programming using Dreamweaver. Students will design, create, publish and maintain web sites using Dreamweaver.

**163 INTRODUCTION TO PHOTOSHOP 1.5 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 24 hours per semester*

Design, creation, and manipulation of original and existing images and photographs using PhotoShop.

**168 E-COMMERCE PROGRAMMING AND DESIGN 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 48 hours per semester*

Introduction to E-Commerce site design and programming. Includes site development, debugging, and implementation of programs to enhance E-Commerce sites. Course topics will include: Client-side and Server-side scripts, ASP and database integration.

**171 INTRODUCTION TO ROBOTICS 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to robotic technology including the history, terminology, components and operation of robotic systems. Includes an overview and creation of robotics using selected software. Includes program development using a high-level language. Discusses the impact of robotics in society and the work place. No previous computer background required.

**190A WEB MASTER INTERNSHIP 3 UNITS***Associate Degree Applicable**Prerequisite: CIS 111**Lecture: Minimum 8 hours per semester**Field: Minimum 200 hours per semester*

A one-semester course offering hands-on experience in Web page design and web site management. This course will provide additional expertise to students interested in furthering their skills in web page design and web site management by exposing them to authentic product development, and coaching by a professional mentor in the field.

**190B NETWORK ADMINISTRATION INTERNSHIP 3 UNITS***Associate Degree Applicable**Prerequisites: CIS 130 and CIS 150**Lecture: Minimum 8 hours per semester**Field: Minimum 200 hours per semester*

A one-semester course offering hands-on experience in network implementation, design, setup, and administration. This course will provide additional expertise to students interested in furthering their skills in network administration by exposing them to network planning, development, wiring, implementation, maintenance and coaching by a professional mentor in the field.

**190C HARDWARE TECHNICIAN INTERNSHIP 3 UNITS***Associate Degree Applicable**Prerequisite: CIS 130**Lecture: Minimum 8 hours per semester**Field: Minimum 200 hours per semester*

A one-semester course offering hands-on experience in computer hardware maintenance and user support. This course will offer further expertise to students interested in furthering their skills in hardware and end-user support by exposing them to authentic support scenarios, and coaching by a professional in the field.

**198 COMPUTER INFORMATION SYSTEMS WORK EXPERIENCE 2 - 4 UNITS***CSU\*, Associate Degree Applicable**Prerequisite: Enrolled in Computer Information Systems occupational program and working at a job directly related to student's major**Corequisite: Enrolled in at least 7 units, including this**Work Experience course**Work Experience: 150-300 hours Paid Employment**120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**203 ADVANCED VISUAL BASIC 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: CIS 103**Lecture: Minimum 48 hours per semester*

Advanced Visual Basic concepts and methods as applied to the creation and maintenance of both single-user and client-server databases. Includes writing, debugging, and executing student created applications to solve both general purpose, and business database problems. Course also includes using SQL (Structured Query Language). ADO (Active X Data Objects), UDA (Universal Data Access), and using Windows API (Application Programming Interface).

**250 EXPLORING THE INFORMATION SUPERHIGHWAY 1.5 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 24 hours per semester*

Familiarization, use and customization of software tools that allow exploration and publication of information on the Internet. This includes Electronic Mail, the World Wide Web and USENET news group. Transfers to all CSU systems and is an elective for Liberal Studies/Education students who are transferring to the CSUSB seeking a teacher credential.

**255 INTRODUCTION TO COMPUTER TECHNOLOGY FOR EDUCATORS 3 UNITS**

CSU, Associate Degree Applicable  
 Prerequisite: None  
 Lecture: Minimum 32 hours per semester  
 Laboratory: Minimum 48 hours per semester

Introduction to computer operations, terminology and components. Exploring technology and its instructional potential. Looks at computers and social issues, ethics and equity in education. Hands-on use of computers for basic understanding and application of database, word processing, desktop publishing, spreadsheets, visual aids, and use of graphics. No programming language required and no computer experience required. Required for all Liberal Studies/Education students who are transferring to California State University San Bernardino.

**916X10 LABORATORY FOR COMPUTER INFORMATION SYSTEMS 0 UNIT**

Not Applicable to Associate Degree  
 Prerequisite: None  
 Corequisite: Currently enrolled in a Computer Information Systems course  
 Laboratory: Variable hours

Open-entry, open-exit computer laboratory to support the objectives of courses in Computer Information Systems. This course may be taken ten times.

# ECONOMICS (ECON)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.  
 Faculty: Farhad Mansourian, M.A.

**ASSOCIATE OF ARTS DEGREE ECONOMICS**

REQUIRED COURSES:	UNITS
ECON 100 Introduction to Economics	3
ECON 200 Principles of Macroeconomics	3
ECON 201 Principles of Microeconomics	3
ENGL 101 Freshman Composition	4
MATH 090 Elementary Algebra	4
MATH 108 Statistics	4
<b>TOTAL UNITS</b>	<b>21</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

**100 INTRODUCTION TO ECONOMICS 3 UNITS**

UC\*, CSU, Associate Degree Applicable  
 Prerequisite: None  
 Departmental Recommendations: ENGL 101 and MATH 952  
 Lecture: Minimum 48 hours per semester

A general education course emphasizing economic analysis applied to issues and problems facing the U.S. economy. Problems are analyzed with the elementary tools of economics as a way of evaluating alternative choices with respect to actual or hypothetical courses of action. Topics covered include supply and demand, market structures, inflation, unemployment, fiscal policy, monetary policy and international trade. \* No UC credit granted if taken after ECON 200 OR ECON 201.

**200 PRINCIPLES OF MACROECONOMICS 3 UNITS**

UC, CSU, Associate Degree Applicable  
 Prerequisite: None  
 Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher  
 Lecture: Minimum 48 hours per semester

Introduction to the basic mechanisms of macroeconomics, including key underlying concepts, theories and institutions such as national income accounting, the Classical and the Keynesian theories, the Federal Reserve System and commercial banking. An examination of various contemporary economic growth, unemployment, inflation, and budget deficit are also presented. (CAN ECON 2)

**201 PRINCIPLES OF MICROECONOMICS 3 UNITS**

UC, CSU, Associate Degree Applicable  
 Prerequisite: None  
 Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher  
 Lecture: Minimum 48 hours per semester

An introduction to economic principles that govern production, exchange, distribution and consumption in a capitalist economy. Topics covered include supply and demand, consumer theory, production theory, and price formation in competitive and noncompetitive markets, theory of comparative advantage and international trade. Issues such as monopoly, public goods, unequal income distribution, and environmental problems are also studied in this course. (CAN ECON 4)

# EDUCATION (EDU)

Department: Child Development and Education  
 Department Head: Jean Searle-Grassick, M.A.  
 Faculty: JoAnn Jones, M.Ed.  
 Meridyth McLaren, M.S.  
 Jean Searle-Grassick, M.A.

**200 SOCIAL STUDIES FOR THE SCHOOL AGE CHILD 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: Acceptance into program*

*Lecture: Minimum 32 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to social studies curriculum and methods of instruction for the school age child. Overview of social studies in a diverse society. Includes designing instruction and meeting academic needs of children. 48 hours of lab in an elementary school setting required. This course transfers to CSU and is required for the Liberal Studies/Education program at CSUSB.

**290 INTRODUCTION TO EDUCATION 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: CD 105*

*Lecture: Minimum 48 hours per semester*

This course is an introduction to the field of education. It is designed to familiarize students with the broad aspects of the profession, philosophy, and principles of teaching school age children. This course transfers to CSU and is required for the Liberal Studies/Education program at CSUSB.

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**EMERGENCY MEDICAL TECHNICIAN – I CERTIFICATE**

The objective of this certificate is to train students to perform basic life support in the prehospital setting. Successful completion of the certificate program identifies the student has met the educational requirements as an Emergency Medical Technician. This is a state certificate program.

**Admission:** Open to all students who meet the age and physical requirements. Registration is limited to class size restrictions.

**REQUIRED COURSE**

EMS 020	Emergency Medical Technician – I	6.0
	<b>TOTAL</b>	<b>6.0</b>

**EMERGENCY MEDICAL TECHNICIAN – PARAMEDIC CERTIFICATE**

The objective of this certificate is to train students with the necessary cognitive, psychomotor, and affective behaviors to provide advanced life support in the prehospital setting and to provide the necessary course work to be licensed in the state of California. Completion of the certificate program will prepare the students for entry-level employment as an Emergency Medical Technician – Paramedic and other occupations requiring Paramedic level license.

**ENTRANCE REQUIREMENTS**

1. Current, CA EMT-Basic Certification;
2. Minimum of six months full-time experience or 1000 hours of part-time EMS experience;
3. ANAT 101 or ANAT 150 and ANAT 151 or CSU transferable equivalent;
4. High School diploma or GED;
5. Current negative TB test within one year or chest x-ray within two years;
6. Completion of Hepatitis B immunization series or titer showing immunity;
7. Rubella titer showing immunity or proof of MMR immunization.

**ENTRANCE COMPETENCIES**

1. Reading level of 12<sup>th</sup> grade or higher;
2. Math proficiency level of 10<sup>th</sup> grade or higher;
3. Written EMT-basic competency of 80 percent or higher;
4. Written anatomy and physiology competency of 80 percent or higher;
5. Oral judgment of simulated field situations of 80 percent or higher.
6. Eligible to be licensed/accredited by state and local EMS agency.

# EMERGENCY MEDICAL SERVICES (EMS)

Department: Emergency Services  
 Department Head: James Holbrook, Ed.D.  
 Faculty: Sandra Andrews, A.S.  
 Kathy Crow, B.V.E.  
 James Holbrook, Ed.D.  
 Gary Reese, A.S.  
 Daniel Word, A.S.  
 Liaison Counselor: Frances White, M.A.

**ASSOCIATE OF SCIENCE DEGREE EMERGENCY MEDICAL SERVICES**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
<i>Consult with your counselor to develop an appropriate course of study.</i>	
EMS 150 Patient Assessment for Paramedics	3
EMS 151 Introduction to Emergency Medical Services	2
EMS 152 Cardiology for the EMT-Paramedic	4
EMS 153 Pharmacology for the EMT-Paramedic	3
EMS 154 Emergency Medical Services Theory	8
EMS 155 Skills Development for Paramedics	3
EMS 156 Clinical Externship for the Paramedic	2
EMS 157 Field Externship for the Paramedic	7.5
<b>TOTAL UNITS</b>	<b>32.5</b>

Completion of the following 32.5 units qualifies the student for the Emergency Medical Technician - Paramedic Certificate.

**REQUIRED COURSES**

EMS 150	Patient Assessment for Paramedics	3.0
EMS 151	Introduction to Emergency Medical Services – Paramedic	2.0
EMS 152	Cardiology for the EMT – Paramedic	4.0
EMS 153	Pharmacology for the EMT – Paramedic	3.0
EMS 154	Emergency Medical Services Theory	8.0
EMS 155	Skills Development for Paramedics	3.0
EMS 156	Clinical Externship for the Paramedic	2.0
EMS 157	Field Externship for the Paramedic	7.5
	<b>TOTAL</b>	<b>32.5</b>

**MOBILE INTENSIVE CARE NURSE CERTIFICATE**

**Admissions:** Open to students possessing a current California Registered Nurse License who have completed the following entrance requirements.

Completion of the following 2.25 units qualifies the student for the Mobile Intensive Care Nurses Certificate. Contact the Emergency Medical Services Department for application materials.

**ENTRANCE REQUIREMENTS**

1. EMS 110, Advanced Cardiac Life Support – Provider (ACLS) or have a current ACLS card;
2. One year experience as a registered nurse.
3. Have 800 hours experience as a registered nurse in the Emergency Department;
4. Proof of a cardiac dysrhythmia course;
5. Current employment in a base station hospital in San Bernardino or Riverside County;
6. Ability to complete a written screening examination with 80 percent accuracy.

**REQUIRED COURSE**

EMS 103	Mobile Intensive Care Nurse	2.25
	<b>TOTAL</b>	<b>2.25</b>

**020 EMERGENCY MEDICAL TECHNICIAN - I 6 UNITS**

*Associate Degree Applicable*

*Prerequisite: Must be 18 years of age as required by Title 22 of the Health and Safety Code*

*Departmental Recommendations: Good dexterity and coordination abilities; the ability to work in small areas, in different positions and at times on the ground or floor; good physical condition with the ability to lift up to 150 pounds*

*Lecture: Minimum 64 hours per semester*

*Laboratory: Minimum 64 hours per semester*

*Clinic: Minimum 16 hours per semester*

*Field: Minimum 24 hours per semester*

Instruction in all facets of basic life support measures, CPR, and the use of appropriate emergency medical equipment and supplies. Stresses hands-on emergency medical skills proficiency needed to enhance the EMS Delivery System in the field. Includes OSHA approved Hazardous Materials Awareness Level, Blood Borne Pathogens for Health Care Workers, state mandated SIDS Education and an introduction to Pharmacology for the EMT-I.

**030 EMERGENCY DEPARTMENT TECHNICIAN****4.25 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Corequisite: FIRET 903*

*Lecture: Minimum 44 hours per semester*

*Laboratory: Minimum 44 hours per semester*

*Clinic: Minimum 40 hours per semester.*

Instructions in all facets of basic life support measures, CPR, and the use of appropriate clinical emergency equipment and supplies. Stresses hands-on skills proficiency in assisting the physician with suturing, sterile set-up of trays, application of plaster and other types of splints. Includes confidentiality, professionalism, including a good work ethic. Introduces emergency equipment used in pre-hospital care and how it impacts care in the emergency department.

**039 OUTDOOR EMERGENCY CARE****5.75 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 40 hours per semester*

Comprehensive emergency care training applied to the outdoor environment. Covers environmental effects on humans, patient assessment, respiratory and circulatory impairment, bone and joint injuries, and ski injuries. Complies with National Ski Patrol training requirements for Ski Patrol candidates. Offered for Credit or No Credit only.

**043X20 SKI PATROL – BASIC PATROL TRAINING****.5 - 2.50 UNITS**

*Associate Degree Applicable*

*Prerequisite: Must pass a safety skiing and ski proficiency test the first day of class*

*Departmental Recommendation: EMS 039*

*Laboratory: Minimum 30-120 hours per semester*

Classroom and ski slope training necessary to provide emergency medical care to victims of accidents or sudden illness at a ski resort or cross country facility. Offered for Credit or No Credit only.

**060 EMT-B FIELD PRACTICUM 7.25 UNITS***Associate Degree Applicable**Prerequisite: EMS 020; Must be pre-selected into the EMT-EMT-P, A.S. Degree Program**Corequisite: EMS 105**Lecture: Minimum 16 hours per semester**Field: Minimum 500 hours per semester*

Coordination of basic emergency medical technician training on a field unit with a mentor; opportunity to observe and assist in emergency medical intervention in traumatic and medical out of hospital emergencies. Provides the Emergency Medical Technician-B the field experience necessary to apply to the paramedic program.

**090A-ZX3 SELECTED TOPICS IN EMERGENCY MEDICAL SERVICES .25 - 4 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 1-64 hours per semester and/or**Laboratory: Minimum 2-96 hours per semester and/or**Clinic/Field: Minimum 5-240 hours per semester*

Current information on selected topics for the continuing education of Mobile Intensive Care Nurses and/or Paramedics; topics include cardiology, medical trauma, pharmacology, basic paramedic sciences, pediatrics, obstetrics, medical, surgical, and psychiatric problems. This course may be taken three times.

**091X3 CONTINUING EDUCATION FOR THE HEALTH PROFESSIONAL .25 - 4 UNITS***Associate Degree Applicable**Prerequisite: Current EMT-P or MICN Certificate**Lecture: Minimum 1-64 hours per semester and/or**Laboratory: Minimum 2-96 hours per semester and/or**Clinic/Field: Minimum 5-240 hours per semester*

Current information on selected topics for the continuing education of Paramedics and Mobile Intensive Care Nurses (MICN); topics include cardiology, medical trauma, pharmacology, basic paramedic sciences, pediatrics, obstetrics, medical, surgical, and psychiatric problems. This course may be taken three times.

**103 MOBILE INTENSIVE CARE NURSE 2.25 UNITS***Associate Degree Applicable*

*Prerequisites: As required by San Bernardino and Riverside County Emergency Medical Services: A current California R.N. license, one year experience as a registered nurse, 800 hours experience as a nurse in the emergency department, current ACLS certification, proof of cardiac dysrhythmia course, current employment in a base station hospital in San Bernardino, Riverside, Inyo, or Mono county and the ability to complete a written screening examination with 80 percent accuracy*

*Lecture: Minimum 20 hours per semester**Laboratory: Minimum 20 hours per semester**Clinic: Minimum 16 hours per semester**Field: Minimum 16 hours per semester*

Orientation to prehospital advanced care protocols for San Bernardino, Inyo, Mono and Riverside counties and practice giving direction to prehospital care providers via one way or two way radio communication. Information on the roles and responsibilities of the mobile intensive care nurse. Offered for Credit or No Credit only.

**105 ASSESSMENT OF THE MEDICAL AND TRAUMA PATIENT 2.25 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: EMT Certification**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 40 hours per semester*

Instruction in the medical and trauma patient assessment geared towards the EMT-Basic and the fundamentals of proper documentation.

**110X20 ADVANCED CARDIAC LIFE SUPPORT—PROVIDER 1 UNIT***Associate Degree Applicable*

*Prerequisite: EMS 910X20 and must be a MD, RN, EMT-P, RT or DDS (Must hold a current certificate in Basic Life Support from American Red Cross or American Heart Association)*

*Lecture: Minimum 12 hours per semester**Laboratory: Minimum 12 hours per semester*

Improvement of the emergency Advanced Life Support skills of professional medical and paramedical personnel. This course may be taken twenty times.

**112X20 ADVANCED CARDIAC LIFE SUPPORT—INSTRUCTOR 1 UNIT***Associate Degree Applicable**Prerequisite: EMS 110X20**Must be 18 years of age**Lecture: Minimum 14 hours per semester**Laboratory: Minimum 6 hours per semester*

Instruction in the knowledge and skills essential to train qualified instructors to teach Advanced Life Support skills to the medical, nursing and paramedical community. This course may be taken twenty times.

**116X20 PEDIATRIC CPR, FIRST AID AND SAFETY FOR CHILDREN 2 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 24 hours per semester*

Certification in pediatric CPR, pediatric first aid, prevention of the spread of infectious disease, immunizations, child safety, and injury prevention. Meets community and state licensing recommendations for child care workers. This course is also offered as CD 116X20. This course may be taken twenty times.

**150 PATIENT ASSESSMENT FOR PARAMEDICS 3 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Lecture: Minimum 48 hours per semester*

Overview of pre-hospital patient assessment and pathophysiology for the paramedic. This course provides the foundational knowledge and skills to effectively assess and treat patients in the pre-hospital setting. The skills will be used to make effective clinical care decisions.

**151 INTRODUCTION TO EMERGENCY MEDICAL SERVICES - PARAMEDIC 2 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Corequisites: EMS 152, EMS 153**Lecture: Minimum 32 hours per semester*

Overview of paramedicine, the ethics of patient care management, and the laws and policies of emergency services, including the relationship between the field providers and other health care professionals, the patient-family response to emergency care, and verbal and nonverbal behaviors and communications related to the delivery of emergency medical services.

**152 CARDIOLOGY FOR THE EMT-PARAMEDIC 4 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Corequisites: EMS 151, EMS 153, EMS 154, EMS 155**Lecture: Minimum 60 hours per semester**Laboratory: Minimum 12 hours per semester*

Basic cardiology and cardiac electrophysiology for the paramedic. This course will review basic pertinent anatomy and physiology, recognition and treatment of cardiovascular disorders.

**153 PHARMACOLOGY FOR THE EMT-PARAMEDIC 3 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Corequisites: EMS 151, EMS 152, EMS 154, EMS 155**Lecture: Minimum 48 hours per semester*

Basic pharmacology for the paramedic, including the administration of medications, and drug therapy, drug actions and interactions, and basic physiology.

**154 EMERGENCY MEDICAL SERVICES THEORY - PARAMEDIC 8 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Corequisites: EMS 151, EMS 152, EMS 153, EMS 155**Lecture: Minimum 128 hours per semester*

Studies in the theory and practice of the diagnosis and treatment of trauma and medical emergencies; emphasis on the pathophysiology of disease processes as the basis for effective initial emergency management.

**155 SKILLS DEVELOPMENT FOR PARAMEDICS 3 UNITS***Associate Degree Applicable**Prerequisite: Admission into the EMT-Paramedic Program**Corequisites: EMS 151, EMS 152, EMS 153, EMS 154**Laboratory: Minimum 120 hours per semester*

Paramedic skills and the equipment used in the treatment of prehospital advanced life support. This course will enhance the student's knowledge of and ability to treat the various traumatic and/or medical emergencies in the prehospital setting.

**156 CLINICAL EXTERNSHIP FOR THE PARAMEDIC 2 UNITS***Associate Degree Applicable**Prerequisites: EMS 151, EMS 152, EMS 153, EMS 154, EMS 155**Clinic: Minimum 164 hours per semester*

Coordination of advanced paramedic training within the hospital setting. Opportunity to direct and engage in emergency intervention in traumatic and medical emergencies. This portion of the program will be in a clinical setting in San Bernardino or Riverside County. (This course fulfills the requirements of Title 22 of the Health and Safety Code for paramedic clinical internship).

**157 FIELD EXTERNSHIP FOR THE PARAMEDIC 7.5 UNITS***Associate Degree Applicable**Prerequisite: EMS 156**Field: Minimum 600 hours per semester*

Coordination of advanced paramedic training with a field advanced life support unit. Opportunity to direct and engage in emergency intervention in traumatic and medical emergencies. This portion of the program will be on a paramedic unit in San Bernardino or Riverside County. (This course fulfills the requirements of Title 22 of the Health and Safety Code for paramedic field internship).

**198 EMERGENCY MEDICAL SERVICES WORK EXPERIENCE 2 - 4 UNITS***CSU\*, Associate Degree Applicable**Prerequisite: Enrolled in Emergency Medical Services occupational program and working at a job directly related to student's major**Corequisite: Enrolled in at least 7 units, including this Work Experience course**Work Experience: 150-300 hours Paid Employment**120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**200A-ZX3 SELECTED TOPICS IN EMERGENCY MEDICAL SERVICES .25 - 4 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 1-64 hours per semester and/or**Laboratory: Minimum 2-96 hours per semester and/or**Clinic/Field: Minimum 5-240 hours per semester*

Group investigation of a special topic in the area of pre-hospital emergency medicine, with special attention to large-scale crisis intervention. This course may be taken three times.

**246X4 SPECIAL STUDIES IN EMERGENCY MEDICAL SERVICES 1 UNIT***Associate Degree Applicable**Prerequisite: None**Independent Study: Minimum 48-192 hours per semester and/or**Clinic: Minimum 80-320 hours per semester*

Independent study for selected students in any area of emergency medical services, with projects determined jointly by student and instructor. This course may be taken four times.

**290 TEACHING STRATEGIES 3.25 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 12 hours per semester*

Combined lecture and lab course which offers instruction in teaching methodologies for the adult learner, including styles of learning, instructional methods, writing behavioral objectives, lesson plans and evaluation tools. It requires student teaching in the laboratory and classroom setting. This course is required for anyone wishing to teach in emergency medical services on or off campus.

**901X20 PREVENTING DISEASE TRANSMISSION FOR EMERGENCY RESPONSE EMPLOYEES .5 UNIT***Not Applicable to the Associate Degree**Prerequisite: None**Lecture: Minimum 8 hours per semester*

Instruction in disease transmission, infection control practices. Occupational exposure management and legal concerns. Designed for emergency medical services, hospital and public safety personnel. Offered for Credit or No Credit only. This course may be taken twenty times.

**910X20 FUNDAMENTALS OF BASIC LIFE SUPPORT FOR HEALTHCARE PROVIDERS .5 UNIT***Not Applicable to the Associate Degree**Prerequisite: Be able to benefit from instruction**Must have physical abilities to perform required skills**Lecture: Minimum 8 hours per semester**Laboratory: Minimum 8 hours per semester*

Instruction in the skills of cardiopulmonary resuscitation for victims of all ages, including automated external defibrillator (AED) for those who provide health care to patients in a wide variety of settings, including in-hospital and out-of-hospital settings. Offered for Credit or No Credit only. This course may be taken twenty times.

**912X20 BASIC CARDIAC LIFE SUPPORT — INSTRUCTOR .25 - .75 UNIT***Not Applicable to the Associate Degree**Prerequisite: EMS 910X20**Lecture: Minimum 3-9 hours per semester**Laboratory: Minimum 3-9 hours per semester*

Review and update of skills and knowledge necessary to perform Cardiopulmonary Resuscitation; techniques of teaching, including practice teaching. This course may be taken twenty times.

**913X20 BASIC CARDIAC LIFE SUPPORT — INSTRUCTOR (RECERTIFICATION) .25 UNIT***Not Applicable to the Associate Degree**Prerequisite: EMS 912X20**Lecture: Minimum 3 hours per semester**Laboratory: Minimum 3 hours per semester*

Provision of updated material for the Basic Life Support instructor; leads to recertification as designated by the American Heart Association. This course may be taken twenty times.

**916X4 LABORATORY FOR EMERGENCY MEDICAL SERVICES 0 UNIT***Not Applicable to the Associate Degree**Prerequisite: None**Corequisite: Any Emergency Medical Services course**Laboratory: Variable hours*

Open-entry, open-exit computer laboratory to support the objectives and content of courses in Emergency Medical Services. This course may be taken four times.

**921X20 EMERGENCY MEDICAL TECHNICIAN RECERTIFICATION 1 UNIT***Not Applicable to the Associate Degree*

*Prerequisite: An EMT-B certification from any county or state in the United States current within the last 4 years or an EMT-B National Registry certification current within the last 4 years*

*Lecture: Minimum 12 hours per semester**Laboratory: Minimum 20 hours per semester*

Review of all facets of basic life-support measures, CPR, automated external defibrillation, use of medical equipment and supplies, as well as instruction in new techniques and materials. Offered for Credit or No Credit only. This course may be taken twenty times.

**923X20 ADVANCED CARDIAC LIFE SUPPORT — INSTRUCTOR (RECERTIFICATION) .25 UNIT***Not Applicable to the Associate Degree**Prerequisite: EMS 110X20**Lecture: Minimum 3 hours per semester**Laboratory: Minimum 3 hours per semester*

Provision of updated material to the Advanced Cardiac Life Support instructor. Assessment of skills, new methods of presenting material, and a written test. This course may be taken twenty times.

**931X20 ADVANCED CARDIAC LIFE SUPPORT — PROVIDER (RECERTIFICATION) .25 UNIT***Not Applicable to the Associate Degree**Prerequisite: EMS 912X20**Lecture: Minimum 3 hours per semester**Laboratory: Minimum 3 hours per semester*

Provision of updated material for the Advanced Life Support provider; leads to recertification as designated by the American Heart Association. This course may be taken twenty times.

**932X20 SELECTED TOPICS IN EMERGENCY MEDICAL SERVICES—OUTDOOR EMERGENCY CARE REFRESHER "A" .5 UNIT***Not Applicable to the Associate Degree**Prerequisite: EMS 039**Lecture: Minimum 4 hours per semester**Laboratory: Minimum 16 hours per semester*

Review of emergency care training applied to the outdoor environment. Covers environmental effects on humans, patient assessment, respiratory and circulatory impairment, bone and joint injuries and ski injuries. Complies with National Ski Patrol training requirements for Ski Patrol candidates. Offered for Credit or No Credit only. This course may be taken twenty times.

**933X20 SELECTED TOPICS IN EMERGENCY MEDICAL SERVICES-OUTDOOR EMERGENCY CARE REFRESHER "B" .5 UNIT**

*Not Applicable to the Associate Degree*  
*Prerequisite: EMS 039*

*Lecture: Minimum 4 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Review of emergency care training applied to the outdoor environment. Covers environmental effects on humans, patient assessment, respiratory and circulatory impairment, bone and joint injuries, and ski injuries. Complies with National Ski Patrol training requirements for Ski Patrol candidates. Offered for Credit or No Credit only. This course may be taken twenty times.

**934X20 SELECTED TOPICS IN EMERGENCY MEDICAL SERVICES-OUTDOOR EMERGENCY CARE REFRESHER "C" .5 UNIT**

*Not Applicable to the Associate Degree*  
*Prerequisite: EMS 039*

*Lecture: Minimum 4 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Review of emergency care training applied to the outdoor environment. Covers environmental effects on humans, patient assessment, respiratory and circulatory impairment, bone and joint injuries, and ski injuries. Complies with National Ski Patrol training requirements for Ski Patrol candidates. Offered for Credit or No Credit only. This course may be taken twenty times.

*Select six units from the following:*

ENGL260	Survey of American Literature I	(3)
ENGL261	Survey of American Literature II	(3)
ENGL270	Survey of British Literature I*	(3)
ENGL271	Survey of British Literature II*	(3)

*Select six additional units from the following:*

ENGL 150	Classical Mythology	(3)
ENGL 155	Children's Literature	(3)
ENGL 160	Literature by Women	(3)
ENGL 163	Chicano Literature	(3)
ENGL 170	The Film Experience	(3)
ENGL 175	Literature and Religion of the Bible	(3)
ENGL232	Creative Writing	(3)
ENGL250	Fiction	(3)
ENGL260	Survey of American Literature I	(3)
ENGL261	Survey of American Literature II	(3)
ENGL270	Survey of British Literature I	(3)
ENGL271	Survey of British Literature II	(3)
ENGL275	Shakespeare	(3)
	<b>TOTAL UNITS</b>	<b>20</b>

*\*Recommended for students planning on transferring to California State University, San Bernardino.*

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

# ENGLISH (ENGL)

Department:	Language Arts
Department Head:	Mark Snowwhite, M.A.
Faculty:	Kris Acquistapace, M.Ed., M.A. Daniel Bahner, M.A. Jeremy Heist, M.A. Aaron Race, M.F.A. Bret Scaliter, M.A. Mark Snowwhite, M.A.

**ASSOCIATE OF ARTS DEGREE ENGLISH**

REQUIRED COURSES:	UNITS
ENGL 101 Freshman Composition	4
ENGL 102 Intermediate Composition and Critical Thinking	(4)
OR	
ENGL 152 Intermediate Composition and Literature	(4)

**015 PREPARATION FOR COLLEGE WRITING 4 UNITS**  
*Associate Degree Applicable*

*Prerequisite: ENGL 914 or a qualifying score on the placement test*

*Lecture: Minimum 64 hours per semester*

Study of the fundamental skills necessary for effective writing, with emphasis on clarity, correctness, and appropriate style. Basic grammar and usage will also be covered.

**101 FRESHMAN COMPOSITION 4 UNITS**  
*UC, CSU, Associate Degree Applicable*

*Prerequisite: ENGL 015 with a grade of C or higher OR a passing score on an accepted placement test*

*Lecture: Minimum 64 hours per semester*

Instruction in writing compositions from personal, reflective and argumentative perspectives. (CAN ENGL 2)

**102 INTERMEDIATE COMPOSITION AND CRITICAL THINKING 4 UNITS**  
*UC, CSU, Associate Degree Applicable*

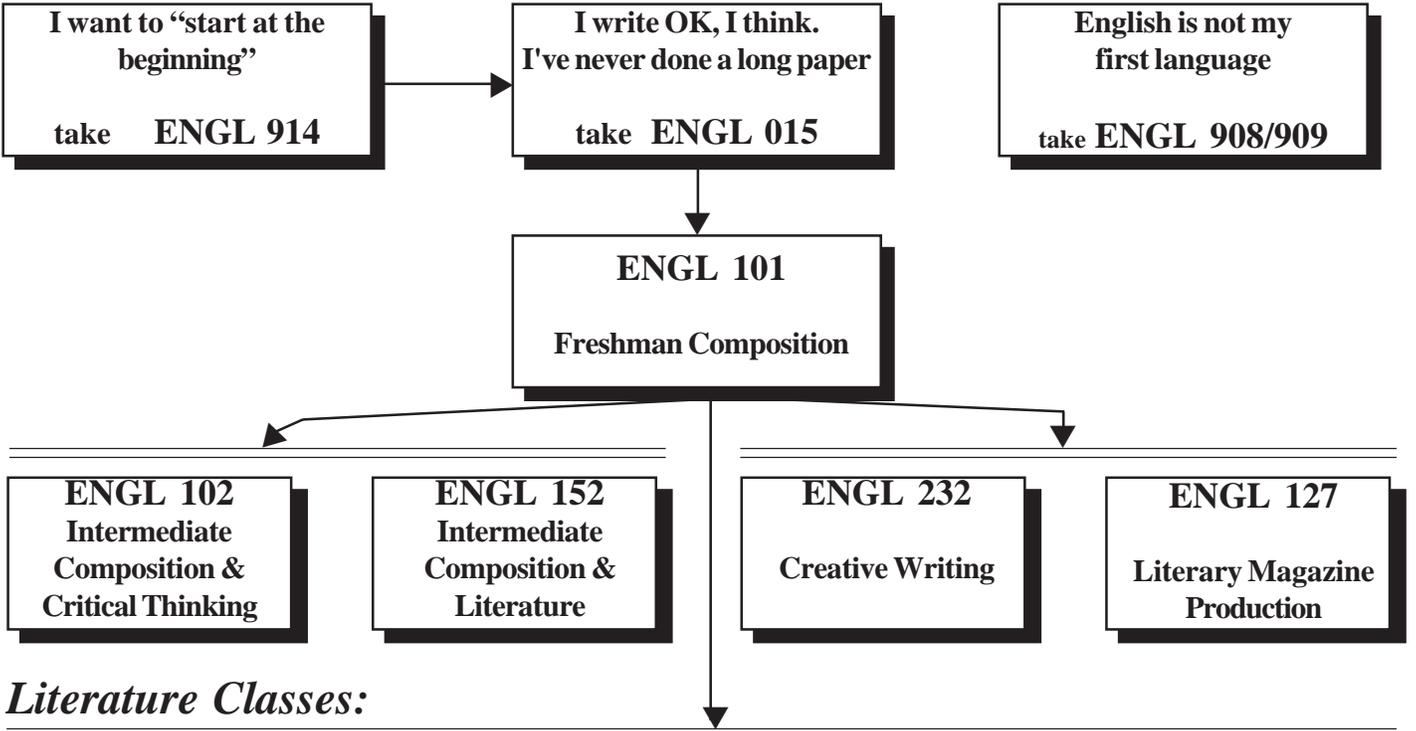
*Prerequisite: ENGL 101*

*Lecture: Minimum 64 hours per semester*

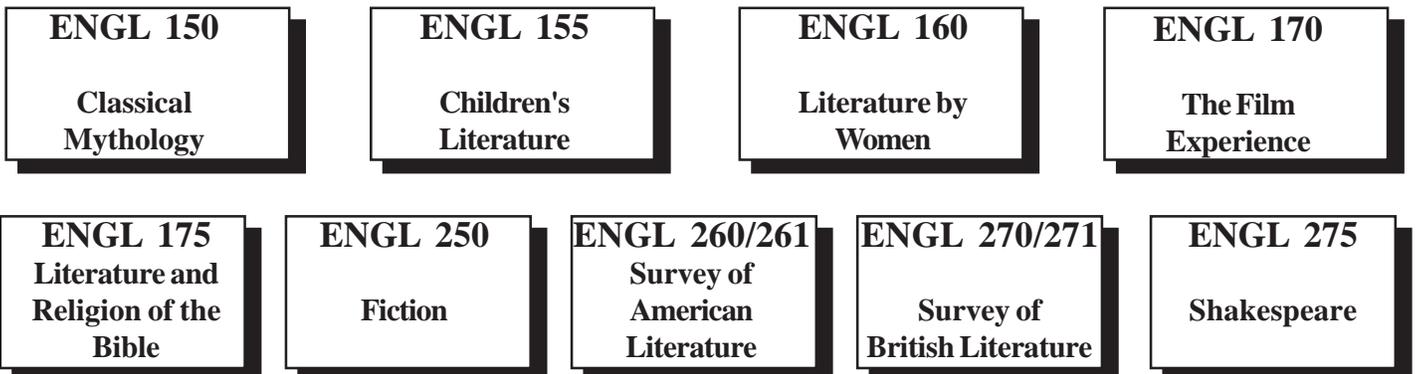
Instruction in writing compositions reflecting critical thinking and employing rhetorical skills beyond those taught in ENGL 101, including summary, analysis, evaluation, rebuttal, and argument. Includes instruction in the analysis of argumentative prose, various rhetorical techniques, the principles of inductive and deductive reasoning, and the informal fallacies. Requires substantial analytical reading and writing.

# Levels and Order of English Classes

The ability to think and reason and communicate using written language is an essential skill. There are several possible starting points for you to enter at the right level. Starting at the right class will let you move from class to class successfully and get to the point you need in the shortest amount of time. **A Counselor can show you the skills needed for each class and help you decide.**



## Literature Classes:



### Visit The Writing Center



3<sup>rd</sup> floor of the Library

**127X4 LITERARY MAGAZINE PRODUCTION:  
THE SAND CANYON REVIEW 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Laboratory: Minimum 144 hours per semester*

Production of the college literary magazine, including the study of the principles of short fiction, poetry, and drama, as well as the process of publishing, including selecting material, planning and executing format, defining and maintaining theme, developing design and layout, editing and desktop publishing. This course may be taken four times.

**150 CLASSICAL MYTHOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 015 OR a qualifying score on the placement test for English**Lecture: Minimum 48 hours per semester*

Study of ancient Greek and Roman stories of gods, goddesses, heroes, and heroines as translated into English from the original sources. Special emphasis on the epics of the Trojan War by Homer.

**152 INTERMEDIATE COMPOSITION AND LITERATURE 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Lecture: Minimum 64 hours per semester*

Study of fiction, poetry, and drama with emphasis on the fundamental principles of literary criticism and interpretation. Instruction in writing compositions about literature. (CAN ENGL 4)

**155 CHILDREN'S LITERATURE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 015 OR a qualifying score on the placement test for English**Lecture: Minimum 48 hours per semester*

Study of literature written for children. Books discussed in the course are essentially books for children, but values common to all significant literature are emphasized.

**160 LITERATURE BY WOMEN 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 015 OR a qualifying score on the placement test for English**Lecture: Minimum 48 hours per semester*

Survey and analysis of past and contemporary literature by women. Focuses on biographical and historical experiences of women as expressed in essays, poetry, fiction, and drama. Explores the depiction of women in historical and literary contexts as well as in art and film.

**163 CHICANO LITERATURE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Lecture: Minimum 48 hours per semester*

Study of the literature, plays, poetry, film, and lyrics representative of Chicano literature. This course includes written analyses.

**170 THE FILM EXPERIENCE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: ENGL 015 or a higher level composition course**Lecture: Minimum 48 hours per semester*

Study of the basic elements of film art, including directing, acting, editing, screen writing, cinematography, set design, lighting, sound effects, and the musical score. Includes instruction in the critical analysis of feature films.

**175 LITERATURE AND RELIGION OF THE BIBLE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Study of the English Bible as literature and as religion. Includes the examination of the types of literature found in the Bible, and the historical and religious context in which the literature was developed. Provides an extensive reading of the two testaments. This course is also offered as RELIG 175.

**232 CREATIVE WRITING 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Study of the techniques of creative writing, with an emphasis on the improvement of the student's ability to write effectively within the framework of a literary genre — fiction, drama, or poetry. Students may concentrate on special interests.

**250 FICTION 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Lecture: Minimum 48 hours per semester*

Study of fiction as a literary genre through readings, in-class discussions, and analytical assignments. Emphasis will be on a particular type of fiction (See the current class schedule for the specific sub-genre.)

**260 SURVEY OF AMERICAN LITERATURE I 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Lecture: Minimum 48 hours per semester*

An analysis of representative literary works of significant American writers from the late fifteenth century through the Civil War that includes the study of the historical and social context of the literature as well as the lives of important writers.

**261 SURVEY OF AMERICAN LITERATURE II 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: ENGL 101**Lecture: Minimum 48 hours per semester*

An analysis of representative literary works of significant American writers since the Civil War through the present that includes the study of the historical and social context of the literature, and lives of important writers.

**270 SURVEY OF BRITISH LITERATURE I 3 UNITS**

*UC, CSU, Associate Degree Applicable  
Prerequisite: ENGL 101*

*Lecture: Minimum 48 hours per semester*

Analysis of representative literary works of significant British writers from before the Norman Conquest through the eighteenth century that includes the study of the historical and social contexts of the literature as well as the lives of important writers.

**271 SURVEY OF BRITISH LITERATURE II 3 UNITS**

*UC, CSU, Associate Degree Applicable  
Prerequisite: ENGL 101*

*Lecture: Minimum 48 hours per semester*

Analysis of representative literary works of significant British writers from the Romantic Period to the present that includes the study of the historical and social contexts of the literature as well as the lives of important writers.

**275 SHAKESPEARE 3 UNITS**

*UC, CSU, Associate Degree Applicable  
Prerequisite: ENGL 101*

*Lecture: Minimum 48 hours per semester*

Study of the plays and poems of Shakespeare, as well as the cultural context in which the works were created. Analysis of the literature from both historical and contemporary perspectives.

**901-902 VOCABULARY IMPROVEMENT 3 UNITS**

*Not Applicable to the Associate Degree  
Prerequisite: None. Courses need not be taken in sequence  
Lecture: Minimum 48 hours per semester*

Overview of the growth and structure of the English language, emphasizing development of skill in self-expression through vocabulary improvement.

**908AB PATTERNS OF CONTEMPORARY ENGLISH 3 UNITS**

*Not Applicable to the Associate Degree  
Prerequisite: None  
Lecture: Minimum 48 hours per semester*

Study of basic patterns of standard spoken and written English for the student whose cultural background has equipped him or her with a language or language patterns other than standard English.

**909AB PATTERNS OF CONTEMPORARY ENGLISH 3 UNITS**

*Not Applicable to the Associate Degree  
Prerequisite: ENGL 908B with a grade of "C" or better.  
Courses must be taken in sequence  
Lecture: Minimum 48 hours per semester*

Study of the basic patterns of standard written English for the student whose cultural background has not provided him or her with the necessary skills to write standard English.

**914 BASIC ENGLISH SKILLS 4 UNITS**

*Not Applicable to the Associate Degree  
Prerequisite: None*

*Lecture: Minimum 64 hours per semester*

Instruction in basic English grammar, including parts of speech, sentence construction, subjects, predicates, objects, verb tenses, spelling rules, vocabulary development, agreement, case, active voice, usage, capitalization, and proper punctuation. Includes instruction in the principles of writing effective paragraphs, including framing topic sentences, developing appropriate support, using transitions, and citing texts.

**916X4 WRITING LABORATORY 1 UNIT**

*Not Applicable to the Associate Degree  
Prerequisite: None*

*Laboratory: Minimum 48 hours per semester*

Diagnosis of specific weaknesses in basic writing and development of an individualized program to help students overcome their problems. This course may be taken four times.

# FIRE TECHNOLOGY (FIRET)

Department: Emergency Medical Services  
 Department Head: James Holbrook, Ed.D.  
 Faculty: John Koeper, B.A.  
 Liaison Counselor: Frances White, M.A.

**ASSOCIATE OF SCIENCE DEGREE  
FIRE TECHNOLOGY**

REQUIRED COURSES:		UNITS
FIRET 100	Fire Protection Organization	3
FIRET 101	Fire Prevention Technology	3
FIRER 102	Fire Behavior and Combustion	3
FIRET 103	Fire Protection Equipment and Services	3
FIRET 116	Building Construction for Fire Protection	3
<b>And 5.5 Units from</b>		
FIRET 087	Fire Investigation IA	2.5
FIRET 104	Fire Apparatus and Equipment	3
FIRET 106	Fire Hydraulics	3
FIRET 118	Wildland Fire Control	3
<b>TOTAL UNITS</b>		<b>20.5</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**CALIFORNIA FIRE OFFICER TRAINING CERTIFICATE**

The objective of this certificate is to provide students with a wide range of cognitive, affective, and psychomotor skills necessary to become an effective Fire Officer.

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 20 units may qualify the student to test for the position of First Line Fire Officer by applying to the California Fire Service Training and Education System through the California State Fire Marshal's office in Sacramento, California.

**REQUIRED COURSES**

FIRET 080	Fire Instructor 1A	2.5
FIRET 081	Fire Instructor 1B	2.5
FIRET 082	Fire Prevention 1A	2.5
FIRET 083	Fire Prevention 1B	2.5
FIRET 084	Fire Management 1	2.5
FIRET 085	Fire Command 1A	2.5
FIRET 086	Fire Command 1B	2.5
FIRET 087	Fire Investigation 1A	2.5
	<b>TOTAL</b>	<b>20.0</b>

**FIRE INSPECTION ACADEMY CERTIFICATE**

The objective of this certificate is to provide students with an introduction to fire prevention practices, human relation skills, inspection skills, knowledge of applicable codes and regulations, and a working knowledge of public education. Completion of this certificate program may lead to employment as an entry-level fire inspector or fire safety specialist in the public or private sectors.

**Admissions:** Open to all students. Registration is limited to class size restrictions.

Completion of the following 11 units with a grade of "C" or higher qualifies the student to apply for the Fire Inspection Academy Certificate.

**RECOMMENDED COURSES**

FIRET 100	Fire Protection Organization	3.0
FIRET 101	Fire Prevention Technology	3.0

**REQUIRED COURSE**

FIRET 078	Fire Inspection Academy	11.0
	<b>TOTAL</b>	<b>11.0</b>

**FIREFIGHTER I BASIC TRAINING ACADEMY CERTIFICATE**

The objective of this certificate is to develop the skills required for Firefighter I Certification and to develop the teamwork skills, attitudes and public service commitment necessary for employment in the fire service. Completion of this certificate may lead to entry-level employment as a firefighter in the public or private sectors. The Firefighter I Basic Training Academy is approved by the California State Fire Marshal's Office as an accredited Regional Training Center.

**Admissions:** Open to all students who have completed the prerequisite courses. Registration is limited to class size restrictions.

**PREREQUISITES**

PE/I 070X4	Fitness Evaluation	.25
FIRET 100	Fire Protection Organization	3.00
FIRET 102	Fire Prevention Technology	3.00
EMT-I	Certification or First Responder Certification	0-6

Certification of Completion of a Crafton Hills College, Biddle or CPAT Agility Test within the past six months.

Completion of English, Reading, and Math Placement Tests.

**RECOMMENDED COURSES**

ENGL 101	Freshman Composition	4.0
MATH 090	Elementary Algebra	4.0

Completion of the following 13.25 units with a "C" or higher qualifies the student to apply for the Firefighter I Basic Training Academy Certificate

**REQUIRED COURSES**

FIRET 049	Basic Firefighter Physical Fitness	.75
FIRET 115	Firefighter I Basic Training Academy	12.50
	<b>TOTAL</b>	<b>13.25</b>

**049 BASIC FIREFIGHTER PHYSICAL FITNESS .75 UNITS**

*Associate Degree Applicable*

*Prerequisite: Acceptance into FIRET 115*

*Corequisite: FIRET 115*

*Laboratory: Minimum 40 hours per semester*

Physical fitness exercise, teamwork, disciplined precision cadence drilling and preparation for the fire agility physical fitness testing requirement for fire academy cadets. Offered for Credit or No Credit only.

**FIRET 060 A-ZX3 SELECTED TOPICS IN FIRE TECHNOLOGY .25 - 4 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 1-64 hours per semester*

*Laboratory: Minimum 2-96 hours per semester*

Examination of current topics related to the fire service. Specific topics to be announced in the schedule of classes for the semester in which this course is offered. Offered for Credit or No Credit only. This course may be taken three times.

**078 FIRE INSPECTION ACADEMY****11 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: FIRET 100 and FIRET 101**Lecture: Minimum 176 hours per semester*

Preparation of an entry-level fire inspector for conducting fire inspections in new and existing buildings, in the use of effective written and oral communications, and in effective public relations methods.

**079 DRIVER/OPERATOR 1 ACADEMY****3 UNITS***Associate Degree Applicable**Prerequisite: Firefighting 1 Certification**Departmental Recommendation: FIRET 106**Lecture: Minimum 32 hours per semester**Laboratory: Minimum 48 hours per semester*

Information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles, including actual driving exercises under simulated emergency conditions. This is a State Certified course.

**080 FIRE INSTRUCTOR 1A****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Preparation for teaching fire service skills; development of course outlines, job breakdowns, behavioral objectives and lesson plans; study of occupational analysis, terms of instruction, teaching methods and the psychology of learning.

**081 FIRE INSTRUCTOR 1B****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Preparation for teaching technical fire service skills; technical lesson plans, supplementary instruction sheets, test planning sheets, and written and oral examinations; fundamentals of evaluation, lesson plan formats and the principles of effective instruction.

**082 FIRE PREVENTION 1A****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of fire prevention; focus on code use, improvement, enforcement and fire cause; consideration of flammable liquid, gases, and solids, combustible dust and metals, explosive materials, properties of plastics, portable and fixed fire protection equipment. Successful completion of FIRET 082 and 083 fulfills the fire prevention requirements for State Officer certification.

**083 FIRE PREVENTION 1B****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Continuation of the study of fire prevention; focus on building construction, flame spread classifications, fire doors, exiting standards, calculation of occupant loads, smoke proof enclosures, sprinkler system design, basic electric and its hazards, fixed extinguishing systems, fire alarm systems, and detection systems and devices. Successful completion of FIRET 082 and FIRET 083 fulfills the fire prevention requirements of State Officer certification.

**084 FIRE MANAGEMENT 1****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of fire ground and fire department management; issues in management; external influences; decision making; stress; characteristics and source of goals; management by objectives; task analysis; motivation inventories; demotivators; productivity; management control; setting policy; organizational structures; delegation; principles of leadership; counseling; Equal Employment Opportunity guidelines; communication; handling disputes and grievances.

**085 FIRE COMMAND 1A****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Examination of fire command through the simulation of first-alarm structural fires, including the role of a command officer, the fire protection tree, building typology, experience/knowledge/synergistic effects, fire behavior, heat transfer, flashover assessment, command pressures, stress and distress, concepts of decision making, emergency levels, decision models, management styles, tactical operation modes, operational planning, principles of command, issuing orders, command placement, directing fire scene forces, operational control, fire ground performance standards, command and control components.

**086 FIRE COMMAND 1B****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Examination of fire command through the simulation of emergencies involving hazardous materials; identification of hazardous materials; safety priorities; chemical hazard planning; hazardous materials legislation; responsibility for pollution; coordinating resources and agencies; use of the DOT Emergency Response Guide Book; protective clothing and equipment; using Chemtrec; shipping documents; decision making models for hazardous materials incidents; concept of alternatives; environmental conditions; decontamination; command posts and staging areas; containers; diking, sealing, and containment; evacuation procedures.

**087 FIRE INVESTIGATION 1A****2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of the principles of fire behavior; building construction; point of fire origin determination; motives of the fire setter; accidental ignition sources; incendiary fire indicators; structure of fire investigation; vehicle fire investigation; fire fatalities; investigation tools and documentation techniques; report writing; evidence recognition, documentation, and preservation; legal aspects of fire investigation; explosives and incendiary devices; juvenile fire setters; wildland fire investigation.

**088 FIRE INVESTIGATION 1B 2.5 UNITS***Associate Degree Applicable**Prerequisite: FIRET 087**Lecture: Minimum 40 hours per semester*

Study of the principles of evidence collection and preservation, report writing, the juvenile firesetter, Penal Code, and other statutory provisions. Further develops principles learned in Fire Investigation 1A.

**089 FIRE PREVENTION 1C 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Principles of the basic hazards associated with flammable and combustible liquids and gases. Bulk storage, handling and transportation of gases and liquids.

**090-097A-ZX3 SELECTED TOPICS IN FIRE TECHNOLOGY .25 - 4 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 1-64 hours per semester and/or**Laboratory: Minimum 2-96 hours per semester and/or**Clinic/Field: Minimum 5-240 hours per semester*

Selected studies related to fire technology. Each semester the specific subject matter of the course will be announced in the schedule of classes. This course may be taken three times.

**100 FIRE PROTECTION ORGANIZATION 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher**Lecture: Minimum 48 hours per semester*

Provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. This course is a prerequisite for the Firefighter I Basic Training Academy.

**101 FIRE PREVENTION TECHNOLOGY 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher**Lecture: Minimum 48 hours per semester*

Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems. Is one of three courses required before entrance into the Fire Academy.

**102 FIRE BEHAVIOR AND COMBUSTION 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: FIRET 100**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 095 or higher**Lecture: Minimum 48 hours per semester*

Theory and fundamentals of how and why fires start, spread, and are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques.

**103 FIRE PROTECTION EQUIPMENT AND SYSTEMS 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: FIRET 101**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher**Lecture: Minimum 48 hours per semester*

Information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.

**104 FIRE APPARATUS AND EQUIPMENT 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: FIRET 100**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 095 or higher**Lecture: Minimum 48 hours per semester*

Study of fire apparatus design including mobile and fixed apparatus; a review of construction specifications and performance capabilities; the effective deployment, utilization and performance of equipment under emergency conditions.

**106 FIRE HYDRAULICS 3 UNITS***Associate Degree Applicable**Prerequisite: Completion of FIRET 100 or appropriate work experience**Lecture: Minimum 48 hours per semester*

Review of basic mathematics, hydraulic laws, and formulas as applied to the fire service; application of formulas and mental calculation of hydraulic problems, water supply problems and underwriters' requirements for pumps.

**109 INTRODUCTION TO HAZARDOUS MATERIALS 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Basic information about the properties of hazardous materials and the methods that are most appropriate for handling various kinds of accidents that can occur during fixed facility or transportation emergencies.

**111 PUBLIC EDUCATION OFFICER I 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Basic components of public fire education and fire prevention, and human behavior in fire as required by the California State Fire Marshal's Office. Partially completes the requirements for Public Education Officer I State certification.

**115 FIREFIGHTER I BASIC TRAINING ACADEMY 12.5 UNITS***CSU, Associate Degree Applicable**Prerequisite: Admission to the Academy**Corequisite: FIRET 049**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher**Lecture: Minimum 100 hours per semester**Laboratory: Minimum 308 hours per semester*

The Crafton Hills College Fire Academy includes introduction to basic fire-fighting theory and skills, study of the characteristics and behavior of fire, hazardous materials response techniques, incident command principles and rescue techniques.

**116 BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 UNITS***CSU, Associate Degree Applicable**Prerequisites: FIRET 100, 101**Departmental Recommendations: Eligibility for ENGL 101, eligibility for MATH 090 or higher**Lecture: Minimum 48 hours per semester*

Study of the components of building construction relating to fire safety, and the elements of construction and design of structures as they relate to building inspection, preplanning fire operation and operating at fires. Study of the development and evolution of building and fire codes.

**118 WILDLAND FIRE CONTROL 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of the factors affecting wildland fire prevention, behavior, and control techniques.

**121 VEHICLE RESCUE 2 UNITS***Associate Degree Applicable**Prerequisite: EMS 020**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Study and practice of procedures of rescue of victims from vehicles, including preparation, response, assessment, hazard control, support operations, access, emergency care, disentanglement, removal, transfer, and operation termination.

**149 BASIC INCIDENT COMMAND SYSTEM 1 UNIT***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 16 hours per semester*

Study of interagency response to emergency situations at local, state, and federal levels; examination of systematic interagency activities, including such organizational concerns as operations, planning, logistics, and finance under a single or unified command system.

**170 BASIC WILDLAND FIRE FIGHTING 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Introduction to wildland fire suppression; overview of commonly used concepts and practices of fire fighting.

**174 WILDLAND FIRE PREVENTION 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of the theories of wildland fire prevention; inspection techniques, surveying and mapping procedures; recognition of fire and life hazards; engineering solutions; enforcing solutions; public relations and wildland fire prevention.

**175 WILDLAND FIRE INVESTIGATION 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of basic wildland fire investigation; instruction in determining fire causes and point of origin; study of investigative tools such as photography, interviewing techniques, and evidence collection; development of written and oral reporting skills.

**176 WILDLAND FIRE BEHAVIOR 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of the basic factors, principles, and terminology for fuels, topography, and weather; application of theory in simulated field situations.

**177 TACTICS AND STRATEGIES OF WILDLAND FIRE CONTROL 4 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 36 hours per semester**Laboratory: Minimum 54 hours per semester**Field: 90 hours per semester*

Examination of the principles of fire control through the use of manpower, equipment, and extinguishing agents in the classroom, laboratory and field.

**180 OIL AND GAS FIRES 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of the proper tactics and methods for response to oil and gas fires.

**182 STRUCTURAL FIRES 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of how building construction influences fire behavior.

**183 AIRCRAFT ACCIDENTS 2.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester*

Study of the methods and tactics used in response to potential or active aircraft fire.

**198 FIRE TECHNOLOGY WORK EXPERIENCE** **2 - 4 UNITS**

CSU\*, Associate Degree Applicable

*Prerequisite:* Enrolled in Fire Technology occupational program and working at a job directly related to student's major

*Corequisite:* Enrolled in at least 7 units, including this Work Experience course

*Work Experience:* 150-300 hours Paid Employment  
120-240 hours Unpaid Employment

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

**202 FIRE COMPANY ORGANIZATION AND MANAGEMENT** **3 UNITS**

Associate Degree Applicable

*Prerequisite:* FIRET 100 or appropriate work experience

*Lecture:* Minimum 48 hours per semester

Review of fire department organization, fire company organization, the company officer's duties and responsibilities; study of leadership and supervision control, company personnel administration, company communications, company training, company fire prevention, company fire fighting, company records and reports, and problem solving.

**203 FIRE COMPANY OFFICER'S ACADEMY** **5 UNITS**

Associate Degree Applicable

*Prerequisite:* None

*Departmental Recommendation:* FIRET 084

*Lecture:* Minimum 80 hours per semester

A preparation of Fire Company Officers in managing a fire company, including motivation as a positive tool, stress management, group communications, problem solving, individual and group behavior, conflict resolution, risk management, officer liability, and a variety of situation simulations.

**220-245A-ZX3 SELECTED TOPICS IN FIRE TECHNOLOGY** **.25 - 4 UNITS**

Associate Degree Applicable

*Prerequisite:* None

*Lecture:* Minimum 1-64 hours per semester and/or

*Laboratory:* Minimum 2-96 hours per semester and/or

*Clinic/Field:* Minimum 5-240 hours per semester

Selected topics related to emergency services. Each semester the specific subject matter of the course will be announced in the schedule of classes. This course may be taken three times.

**250-263A-ZX3 SELECTED TOPICS IN FIRE TECHNOLOGY** **.25 - 4 UNITS**

Associate Degree Applicable

*Prerequisite:* None

*Lecture:* Minimum 1-64 hours per semester and/or

*Laboratory:* Minimum 2-96 hours per semester and/or

*Clinic/Field:* Minimum 5-240 hours per semester

Special topics related to fire technology. Each semester the specific subject matter of the course will be announced in the schedule of classes. This course may be taken three times.

**275 DRIVER OPERATOR 1A** **2.5 UNITS**

Associate Degree Applicable

*Prerequisite:* Contract, paid-call, or documented volunteer fire fighting experience

*Lecture:* Minimum 40 hours per semester

Study of vehicle laws, driver responsibilities, emergency response procedures, apparatus and equipment maintenance procedures; maneuvering of fire apparatus through controlled driving exercises and in normal traffic conditions.

**276 DRIVER OPERATOR 1B** **2.5 UNITS**

Associate Degree Applicable

*Prerequisite:* FIRET 275

*Lecture:* Minimum 40 hours per semester

Study of the types and design of fire pumps; principles of pumping; review of applied mathematics, hydraulic laws; application of mental hydraulic calculations and operation of pumps under fire ground conditions.

**277 HAZARDOUS MATERIALS FIRST RESPONDER** **1.5 UNITS**

Associate Degree Applicable

*Prerequisite:* None

*Lecture:* Minimum 24 hours per semester

Instruction in safe and competent response techniques for probable first responders to hazardous materials incidents. Includes instruction in safe containment techniques and protective actions designed to mitigate the incident as far as possible.

**279 TRUCK COMPANY OPERATIONS 1A** **1.5 UNITS**

Associate Degree Applicable

*Prerequisite:* None

*Lecture:* Minimum 16 hours per semester

*Laboratory:* Minimum 24 hours per semester

Review of fire truck operations and the skills and techniques required in the use of apparatus, tools and equipment under emergency conditions.

**901 FIRE SERVICE CAREER PREPARATION** **3 UNITS**

Not Applicable to the Associate Degree

*Prerequisite:* None

*Corequisite:* FIRET 100 recommended

*Lecture:* Minimum 48 hours per semester

Preparation of students to successfully compete for a position in the Fire Service. Includes academic skills testing, taking written, oral and physical agility tests and how to market skills.

**902X4 FIREFIGHTER PHYSICAL AGILITY PREPARATION** **2.5 UNITS**

Not Applicable to Associate Degree

*Prerequisite:* None

*Departmental Recommendation:* PE/I 070X4

*Lecture:* Minimum 16 hours per semester

*Laboratory:* Minimum 32 hours per semester

Preparation of pre-entry level fire technology students to develop a program of fitness and wellness and successfully pass a job related physical agility examination. Instruction in nutrition, fitness, physical development and the necessary agility skills. This course may be taken four times.

**903 HAZARDOUS MATERIALS FIRST RESPONDER AWARENESS .5 UNIT**

*Not applicable to the Associate Degree*

*Prerequisite: None*

*Lecture: Minimum 8 hours per semester*

Instruction in the recognition of hazardous materials events, actions responses to the events and hazard assessment techniques. Satisfies the requirements for all healthcare workers. Offered for Credit or No Credit only.

*Select three units from the following:*

GEOG 120	World Regional Geography	(3)
GEOL 170X4	Geologic History of the Great Basin	(1)
GEOL 270X4	Geology of the Eastern Sierra Nevada	(1)
CHEM 102	Introduction to Organic Chemistry	(4)
CHEM 150	General Chemistry I	(5)
CHEM 151	General Chemistry II	(5)
<b>TOTAL UNITS</b>		<b>18</b>

# FRENCH (FRENCH)

Department: Language Arts  
 Department Head: Mark Snowwhite, M.A.

**101 COLLEGE FRENCH I 5 UNITS**

*UC\*, CSU\*, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Comprehension, conversation, reading and composition, including drill in essential grammar, at the elementary level. (This course corresponds to the first year of high school French.)

**102 COLLEGE FRENCH II 5 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: FRENCH 101 or one year of high school French*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 16 hours per semester*

Continuation of FRENCH 101. (This course corresponds to the second year of high school French.)

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**110 PHYSICAL GEOGRAPHY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester and field trips*

Introduction to the basic elements of physical geography, emphasizing climate, landforms, hydrography, soils, native animal life, and national vegetation, their interrelationships and patterns of distribution throughout the world.

**Changes Effective SPRING 2004**

**110 PHYSICAL GEOGRAPHY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Concurrent enrollment in GEOG III*

*Lecture: Minimum 48 hours per semester and field trips*

A spatial study of Earth's dynamic physical systems and processes. Topics include Earth-sun relationships, weather, climate, water, geomorphology/landforms, soils, and the biosphere. Emphasis is on interrelationships among systems and processes and their resulting patterns and distributions. Tools of geographic inquiry include maps, remote sensing, Geographic Information Systems, Global Positional Systems, and fieldtrips.

# GEOGRAPHY (GEOG)

Department: Physical Science/Mathematics  
 Department Head: Sherri Wilson, M.S.

**ASSOCIATE OF SCIENCE DEGREE GEOGRAPHY**

REQUIRED COURSES:	UNITS
GEOG 110 Physical Geography	3
GEOG 111 Physical Geography Laboratory	1
GEOL 100 Physical Geology	4
MATH 103 Plane Trigonometry	4
OCEAN 101 Elements of Oceanography	3

**111 PHYSICAL GEOGRAPHY LABORATORY 1 UNIT**

*UC, CSU, Associate Degree Applicable*

*Prerequisite or Corequisite: GEOG 110*

*Laboratory: Minimum 48 hours per semester*

Laboratory to accompany GEOG 110.

**Changes Effective SPRING 2004****111 PHYSICAL GEOGRAPHY LABORATORY 1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite/Corequisite: GEOG 110**Laboratory: Minimum 48 hours per semester*

Laboratory to accompany GEOG 110. Geographic tools will be utilized to explore, understand, and identify the interrelationships of our atmosphere, hydrosphere, lithosphere, and biosphere. Topics include spatial location, weather, climate, water, geomorphology/landforms, soils, and the biosphere. Emphasis is on interrelationships among systems and processes and their resulting patterns and distributions. Tools of geographic inquiry include maps, aerial photographs, remote sensing, Geographic Information Systems (GIS), Global Positional Systems (GPS), and fieldtrips.

**114 WEATHER AND CLIMATE 3 - 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester and field trips**Laboratory: Minimum up to 48 hours per semester*

Study of the earth's atmospheric phenomena, emphasizing the causes and regional distribution of weather and climate. (4 unit course includes a lab.)

**119ABCD SELECTED STUDIES IN GEOGRAPHY .25 - 1 UNIT***UC\*, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 4-16 hours per semester and/or**Laboratory: Minimum 12-48 hours per semester*

Short courses in regional, physical, and cultural geography, offered on an occasional basis.

**120 WORLD REGIONAL GEOGRAPHY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

An introduction to world geography emphasizing the nature of major world culture regions, their social structure, religions, governments and economics.

**126 GEOGRAPHY OF CALIFORNIA 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester and field trips*

Historical study of each general region in California (seashore, mountain, valley, desert) in terms of five ingredients: land, vegetative cover, fauna, water, and air.

# GEOLOGY (GEOL)

Department: Physical Science/Mathematics  
 Department Head: Sherri Wilson, M.S.

**ASSOCIATE OF SCIENCE DEGREE GEOLOGY**

REQUIRED COURSES:		UNITS
GEOG 110	Physical Geography	3
GEOG 111	Physical Geography Laboratory	1
GEOL 100	Physical Geology	4
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
PHYSIC 200	Physics I	6
PHYSIC 201	Physics II	6
<b>TOTAL UNITS</b>		<b>30</b>

RECOMMENDED COURSES:		UNITS
GEOL 170X4	Geologic History of the Great Basin	1
GEOL 250	Geology of California	3
GEOL 251	Geology of National Parks and Monuments	3
GEOL 270X4	Geology of the Eastern Sierra Nevada	1
OCEAN 101	Elements of Oceanography	3

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 PHYSICAL GEOLOGY 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 48 hours per semester and field trips*

Introduction to earth materials and structures and the processes shaping the surface of the earth, including laboratory studies which are closely coordinated with lecture topics.

**Changes Effective SPRING 2004****100 PHYSICAL GEOLOGY 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 48 hours per semester and field trips*

An introduction to the study of the earth with emphasis on the materials that make up the earth, discussion of plate tectonics; the process that created the continents and the ocean basins, and the external processes that create the landscapes. Tools of geologic inquiry include physical properties of minerals and rocks, aerial photographs, geologic maps, Brunton compass, Geographic Information Systems (GIS), Global Positional Systems (GPS), and field studies. The laboratory studies are closely coordinated with the lecture topics.

**101 INTRODUCTION TO GEOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to earth materials and structures, the processes shaping the surface of the earth, the origin of the planet, and the evolution of plant and animal life, with no laboratory studies.

**Changes Effective SPRING 2004****101 INTRODUCTION TO GEOLOGY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

An introduction to the study of the earth with emphasis on the materials that make up the earth, discussion of plate tectonics; the process that created the continents and the ocean basins, and the external processes that form the landscapes. Tools of geologic inquiry include physical properties of minerals and rocks. Aerial photographs, geologic maps, Brunton compass, Geographic Information Systems (GIS), Global Positional Systems (GPS), and field studies.

**150 MAN AND HIS GEOLOGIC ENVIRONMENT 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester and field trips*

Introduction to the interrelationships among geologic processes, earth materials, and man, emphasizing population, geologic hazards (landslides, mudflows, earthquake, volcanism, etc.), mineral fuels and resources and the geologic impact of their extraction, and other problems of a geologic nature related to massive urbanization. Emphasis will be placed on case studies within California.

**160 GEOLOGY LABORATORY 1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite or Corequisite: Any course in Geology**Laboratory: Minimum 48 hours per semester*

Laboratory to accompany various Geology courses in order to complete the laboratory science requirement.

**Changes Effective SPRING 2004****160 GEOLOGY LABORATORY 1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite/Corequisite: GEOL 101**Laboratory: Minimum 48 hours per semester*

Laboratory exercises designed to utilize the tools of geologic inquiry, including physical properties of minerals and rocks, aerial photographs, geologic maps, Brunton compass, Geographic Information Systems (GIS), Global Positional Systems (GPS), and fieldtrips. The laboratory studies are closely coordinated with the lecture topics.

**GEOL 170X4 GEOLOGIC HISTORY OF THE GREAT BASIN 1 UNIT***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 8 hours per semester**Laboratory: Minimum 24 hours per semester*

Discussion and observation of the physical and historical geology and natural history of the Great Basin province of the United States, with specific emphasis on the geology of Death Valley National Park. Lectures preparatory to the field study and geologic tools will be utilized to explore, understand, and observe the geology in the Great Basin and around Death Valley. Tools of geologic inquiry include field notes, hand lens, Brunton compass, topographic maps, aerial photographs, remote sensing, Geographic Information System (GIS), and Global Positional Systems (GPS). Students must attend the field study for successful course completion. (Formerly GEOL 170ABC)

**246ABCD SPECIAL PROBLEMS IN GEOLOGY 1 UNIT***UC\*, CSU, Associate Degree Applicable**Prerequisite or Corequisite: Any course in Geology**Laboratory: Minimum 48 hours per semester*

Independent projects for selected students with a special interest in geology, involving library research, laboratory projects, and/or field studies.

**250 GEOLOGY OF CALIFORNIA 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester and field trips*

Survey of the physical and historical geology of California, with emphasis on the characteristic geologic record of the twelve geomorphic provinces into which the state is divided.

**251 GEOLOGY OF NATIONAL PARKS AND MONUMENTS 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester and field trips*

Study of the geology of selected national parks and monuments of the United States, with particular emphasis on the geologic process which formed them.

**260ABC INTRODUCTION TO FIELD GEOLOGY 2 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: Any course in Geology**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Demonstration, discussion and practice of field investigations of geologic environments involving describing, mapping, and identifying geologic phenomena. Students must attend the field studies for successful completion of the course.

\*Maximum UC credit, one course.

**270X4 GEOLOGY OF THE EASTERN SIERRA NEVADA**  
**1 UNIT**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 8 hours per semester*

*Laboratory: Minimum 24 hours per semester*

Discussion and observation of the physical and historical geology and natural history of the Pacific Coast province of the United States, with specific emphasis on the geology of Eastern Sierra Nevada. Lectures preparatory to the field study and geologic tools will be utilized to explore, understand, and observe the geology in the Pacific Coast province and around the Eastern Sierra Nevada. Tools of geologic inquiry include field notes, hand lens, Brunton compass, topographic maps, aerial photographs, remote sensing, Geographic Information Systems (GIS), and Global Positional Systems (GPS). Students must attend the fieldtrip for successful course completion. (Formerly GEOL 270ABC)

**200 BIOLOGY OF SEXUALLY TRANSMITTED DISEASES**  
**1.5 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 24 hours per semester*

Study of the etiology and transmission of sexually transmitted diseases. Introductory material is presented regarding agent, treatment and prevention of prominent sexually transmitted diseases. Ethical issues related to this topic will be explored. This course transfers to CSU and is an elective for the Liberal Studies/Education program at CSUSB.

**263 NUTRITION AND HEALTH** **3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

This course reviews the literature on the basic nutrients; protein, fat, carbohydrates, vitamins, minerals, and water. Students will have the opportunity to develop the skills necessary to analyze, evaluate and prescribe a dietary intake for "healthy" individuals. The class includes an in-depth analysis of emotional stress as a lifestyle factor in disease. This course is also offered as PE 263.

**HEALTH EDUCATION**  
**(HEALTH)**

Department: Health and Physical Education  
 Department Head: Deborah DeSalliers, Dr.P.H.  
 Faculty: Deborah DeSalliers, Dr.P.H.  
 Janine Ledoux, Dr.P.H.

**102 BIOLOGICAL PRINCIPLES OF HEALTH** **3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Examines the nature and scope of healthful living, including the principles of health resources, trends in disease prevalence, infectious and noninfectious diseases and risk factors (i.e. smoking, substance abuse, improper diet and inactivity).

**103 HEALTHY APPROACH TO LOSING BODY FAT**  
**3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Healthy Approach to Losing Body Fat is a lecture course designed for men and women who are interested in achieving ideal body fat. The class will provide information about nutrition principles, meal planning, resistance training, cardiovascular conditioning and daily activities. Students will learn essential skills that enable them to help themselves plan their own diet and exercise routine. This course does not include exercise.

**HISTORY (HIST)**

Department: Social Sciences  
 Department Head: Mario Perez, M.A.  
 Faculty: Jane Beitscher, Ph.D.  
 Mario Perez, M.A.

**ASSOCIATE OF ARTS DEGREE HISTORY**

REQUIRED COURSES:		UNITS
HIST 100	History of the United States to 1877	3
HIST 101	History of the United States 1865 to Present	3
HIST 160	History of Western Civilization: From the Neolithic Revolution to the Renaissance	3
HIST 161	History of Western Civilization: From the Renaissance to the Cold War	3
HIST 170	World Civilizations (3500 BCE-1500 CE)	3
HIST 171	World Civilizations (1500 CE - the Present)	3

*Select six units from the following:*

GEOG 110	Physical Geography	(3)
PHIL 103	Introduction to Logic: Argument and Evidence	(3)
POLIT 100	American Politics	(3)
<b>TOTAL UNITS</b>		<b>24</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 HISTORY OF THE UNITED STATES TO 1877**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: ENGL 101**Lecture: Minimum 48 hours per semester*

This is an introductory survey course of American History from the pre-Columbian period to the end of the Reconstruction Era in 1877. Students are introduced to key issues and developments of the period as America shifts its economic, political, technological and cultural base from a predominantly dependent agrarian colonial society to an independent urban, industrial nation.

**101 HISTORY OF THE UNITED STATES 1865 TO PRESENT**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: ENGL 101**Lecture: Minimum 48 hours per semester*

This is an introductory survey course of American History from 1865 to present. Students are introduced to key social, political, economic and cultural issues and developments in America's emergence as an urban, industrial and technological, global leading, consumer society.

**107 THE UNITED STATES AND THE NORTH AMERICAN INDIANS**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

History of the North American Indian from first contact through conquest and reservation life to the present; examination of modern Indian communities, including red power, urban life and current problems, including material on traditional Indian cultures. This course is also offered as ANTHRO 107.

**135 RELIGION IN AMERICA**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12<sup>th</sup> grade level, ENGL 101**Lecture: Minimum 48 hours per semester*

Study of the principal groups, figures, issues, and trends in religion from colonial times to the present, covering such topics as the Puritans, the growth of religious liberty in America, religion and social protest, the African-American religious experience, Catholic-Protestant-Jew, and contemporary religious phenomena. This course is also offered as RELIG 135.

**153 HISTORY OF MEXICO**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Survey of the development of Mexico from its Indian agrarian, colonial beginning to its present industrial growth, emphasizing the themes of Mexico's cultural, social, and political changes.

**160 HISTORY OF WESTERN CIVILIZATION: FROM THE NEOLITHIC REVOLUTION TO THE RENAISSANCE**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

An introductory survey of the political, economic, social and intellectual developments in the near East and Western Europe from 3500 BC to 155 AD. HIST 160 traces the development of these institutions from the "cradle of civilization" to the Renaissance. (CAN HIST 2)

**161 HISTORY OF WESTERN CIVILIZATION: FROM THE RENAISSANCE TO THE COLD WAR**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Survey of the political, economic, social, and intellectual developments that form the basis for Western Civilization from the Renaissance to the cold war. (CAN HIST 4)

**170 WORLD CIVILIZATIONS (3500 BCE-1500CE)**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Study of cross-cultural history emphasizing the art and literature, philosophy and religion, family and society, as well as the political, economic and technological contributions of the world's civilizations from the earliest societies through the classical to 1500CE. The course focuses on the ethno-cultural traditions of the Middle East, Asia, Greece, Rome and medieval Europe.

**171 WORLD CIVILIZATIONS (1500CE TO THE PRESENT)**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Eligibility for ENGL 101**Lecture: Minimum 48 hours per semester*

Study of cross-cultural history emphasizing the art and literature, philosophy and religion, family and society, as well as the political, economic and technological contributions of the world's civilizations from 1500CE to the present. HIST 171 focuses on modern western and non-western history, culture and socio-political structures and the affect of modern technology, colonialism and revolution in the world.

# HUMAN SERVICES (HUMSV)

Department: Social Sciences  
Department Head: Mario Perez, M.A.

## 175 INTRODUCTION TO EATING DISORDERS 3 UNITS

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

An overview of the description, explanation, and treatment of eating disorders such as anorexia, bulimia, compulsive eating, obesity, chronic dieting, and the history of these disorders. Surveys biological, psychosocial, behavioral, and other theoretical perspectives, and treatment approaches.

## 181 ALCOHOL/DRUG STUDIES: INTRODUCTION 3 UNITS

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Exploration of the physiological, personal, interpersonal and societal causes and effects of alcohol/drug abuse, society's images of substance abusers and the various prevention, treatment and recovery approaches and modalities.

# INTERDISCIPLINARY STUDIES (INTDIS)

Department: Social Sciences  
Department Head: Mario Perez, M.A.

## 080 GROUP LEADERSHIP SKILLS 3 UNITS

*Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Active participation in the Associated Student Senate, student clubs and organizations, college sponsored activities or in a community based organization*

*Lecture: Minimum 16 hours per semester*

*Laboratory: Minimum 96 hours per semester*

Principles and practices for effective work in groups, group processes, and group leadership. Topics include parliamentary procedure, goal setting, planning and implementation of group objectives, budget development and management, interpersonal communication, group dynamics, public speaking, and responsibilities of membership. Students will be asked to apply knowledge through active participation in student organizations and activities.

## 081 GROUP LEADERSHIP SKILLS 3 UNITS

*Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Active participation in the Associated Student Senate, student clubs and organizations, college sponsored activities or in a community based organization*

*Lecture: Minimum 16 hours per semester*

*Laboratory: Minimum 96 hours per semester*

Continuing study of the principles and practices for effective group leadership. Topics include a review of parliamentary procedure, goal setting, planning and implementation of group objectives. Additional topics include group dynamics, consensus building, conflict management, ethics, leadership and public speaking. Students will be asked to apply knowledge through active participation in student organizations and activities.

## 101 THE HUMANITIES 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the human search for understanding and those efforts to achieve dimension and significance in human existence. Critical examination of certain philosophical, religious, scientific, and aesthetic attitudes as essential motivating influences upon the development of Eastern and Western cultures and examinations of major forces and issues involved in contemporary civilization.

## 102 THE HUMANITIES 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the human search for understanding and those efforts to achieve dimension and significance in human existence. Critical examination of history, technology, religion and the arts from the early Renaissance to the modern world as essential motivating influences upon the development of Western culture and examination of major forces and issues involved in the development of contemporary culture.

## 108 OUR GLOBAL FUTURE 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the world's most significant environmental problems. Areas of study will vary each semester as new problems arise and others are solved. However, the environment and preservation of the ecosystem will be among the principal concerns. Lectures and discussions, augmented by videos and occasional field trips, will focus on global crises, but special emphasis will be placed on the continuing search for solutions.

## 130 CONTEMPORARY ISSUES IN MEDICAL ETHICS 3 UNITS

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: ENGL 101*

*Lecture: Minimum 48 hours per semester*

This is an introductory course in ethics of health care. The standard ethical theories will be presented and applied to various issues that arise in the health care context, such as euthanasia, abortion, informed consent, confidentiality, genetic testing and intervention, AIDS, distributive justice, and professional gatekeeping.

**135 PEER EDUCATION: WELLNESS IN ACTION**  
**3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: ENGL 015, PSYCH 100 and/or SOC 100, SPEECH 100 and/or SPEECH 111**Lecture: Minimum 48 hours per semester*

Prepares students to become effective peer educators (e.g. Advocates for Better Body Image, Sexual Health Advocates, Students against Drinking and Driving, Dangers of Binge Drinking and Alcohol Poisoning, Peer Influence on Smoking Behaviors.) Students focus on various health issues that affect the college population. Students participate in the process of planning, implementing, and evaluating culturally sensitive educational programs for their peers. Students learn a variety of presentation styles and group facilitation skills and address issues such as, confidentiality, boundary setting and Para-professionalism.

**140 HUMANITIES THROUGH THE ARTS**  
**3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of the humanities through a study of seven major arts: film, drama, music, literature, painting, sculpture, and architecture. Each of these arts is considered from the perspectives of historical development; the elements used in creating works of art; meaning and form expressed; and critical evaluation.

**145X4 HUMANITIES THROUGH MUSICAL PERFORMANCE**  
**1 UNIT***Associate Degree Applicable**Prerequisite: An intermediate ability in the playing of a string instrument and an ability to read music**Laboratory: Minimum 48 hours per semester*

Performance of orchestral musical achievements from the Baroque to the present including rehearsing, performing, and considering how these works of art reflect various historical and cultural periods. This course may be taken four times.

**180 COMMUNITY SERVICE AND LEADERSHIP I**  
**2 - 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Corequisite: Active participation in a community based organization**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 - 96 hours per semester*

Principles and practices of effective and ethical leadership through community service. Topics of study include interpersonal skills, team building, goal setting, ethics, and valuing diversity, which students will apply in the context of their own service-learning experience. Lectures provide for planning, orientation, and analysis of leadership activities outside the classroom. Three-six hours of volunteer or community service work weekly are required.

**181 COMMUNITY SERVICE AND LEADERSHIP II**  
**2 - 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Corequisite: Active participation in a community based organization**Departmental Recommendation: INTDIS 180**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 - 96 hours per semester*

Continued study of the principles and practices of effective and ethical leadership through community service. Topics of study include networking, event planning, conflict management, negotiation and consensus building, which students will apply in the context of their own service-learning experience. Lectures provide for planning, orientation, and analysis of leadership activities outside the classroom. Three-six hours of volunteer or community service work weekly are required.

**LEARNING RESOURCES****(LRC)****050 TUTOR TRAINING**  
**1 UNIT***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 12 hours per semester**Laboratory: Minimum 12 hours per semester*

Basic tutoring instruction using classic learning theories and differences in learning style. Designed for current peer tutors and those interested in tutoring; introduction to basic instructional methodology and its applications to different tutoring situations; highlights of specific problems that may interfere with learning and tutoring.

**900X4 LEARNING RESOURCES LABORATORY**  
**0 UNIT***Not applicable to the Associate Degree**Prerequisite: None**Corequisite: Enrollment in at least one other course at CHC**Laboratory: Minimum 1-500 hours per semester*

Provides academic support services to students enabling them to succeed in various content area classes, such as English, Math, Science, and Foreign Language, and vocational courses. Activities may include supervised individual or group tutorial services, computer assisted instruction, video viewing and testing to augment direct instruction and to facilitate student learning. Designed to meet the needs of students from various educational preparations, ethnic backgrounds, cultures, and socioeconomic levels. This course may be taken four times.

**960X4 DEVELOPMENTAL STUDY TECHNIQUES**  
**.25 - 2 UNITS***Not applicable to the Associate Degree**Prerequisite: None**Laboratory: Minimum 12-96 hours per semester*

This course provides participation in programs individually designed to assist students in their mastery of basic study techniques necessary for successful achievement in college courses. Some topics that may be addressed are note-taking, test preparation, textbook reading, and time management. This course may be taken four times. (Formerly READ 960ABCD, READ 961ABCD, READ 962ABCD and READ 963ABCD)

# MARKETING (MARKET)

Department: Business  
 Dean: Donna Ferracone, M.A.  
 Liaison Counselor: John Gist, M.S.

## ASSOCIATE OF ARTS DEGREE MARKETING

REQUIRED COURSES:	UNITS
MARKET 100 Marketing Principles	3
MARKET 105 Salesmanship Principles	3
MARKET 110 Advertising	3
BUSAD 053 Business Computations	3
BUSAD 100 Introduction to Business	3
BUSAD 210 Business Law	3
<b>TOTAL UNITS</b>	<b>18</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

## MARKETING MANAGEMENT CERTIFICATE

The objective of this certificate program is to provide entry-level, marketable employment skills to equip the student with a basic understanding of the terminology and basic concepts/procedures used in the marketing field, and to acquaint the student with the various sub-functions within the overall field of marketing. Completion of the certificate program will prepare the student for entry-level employment in a variety of related occupations including retail sales clerk, outside sales representative, advertising, merchandiser, distribution, or customer service representative.

**Admission:** Open to all students. Registration is limited to class size restrictions.

Certificate requirements include the completion of 5 core courses (no more than 1 course from each group) and the completion of 5 specialty courses.

### CORE COURSES

<b>1.</b>		
ACCT 210	Principles of Accounting	(3.0)
ACCT 211	Principles of Accounting Computer Laboratory	(1.0)
<b>OR</b>		
ACCT 205	Bookkeeping	(3.0)
<b>2.</b>		
MARKET 100	Marketing Principles	3.0
<b>3.</b>		
BUSAD 100	Introduction to Business	3.0

<b>4.</b>		
ECON 200	Principles of Macroeconomics	(3.0)
<b>OR</b>		
ECON 201	Principles of Microeconomics	(3.0)

<b>5.</b>		
BUSAD 210	Business Law	3.0

<b>6.</b>		
BUSAD 053	Business Computations	(3.0)
<b>OR</b>		
MATH 108	Statistics	(3.0)

<b>7.</b>		
	Computer Language Course	3.0

### REQUIRED SPECIALTY COURSES

BUSAD 200	Business Management	3.0
MARKET 105	Salesmanship Principles	3.0
MARKET 110	Advertising	3.0
BUSAD 105	Small Business Management	3.0
BUSAD 230	Using Computers for Business	(3.0)
<b>OR</b>		
	Any Business Course	(3.0)
<b>TOTAL</b>		<b>30 - 32</b>

Contact the Admission's Office to apply for a certificate. If you wish to participate in the Graduation Ceremony, contact the Program Development Office at 389-3344 by March 1, 2004.

## 100 MARKETING PRINCIPLES 3 UNITS

CSU, Associate Degree Applicable

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level or equivalent, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Principles and methods of marketing as practiced by all successfully managed business firms; covers such topics as demand analysis, forecasting, product development, price determination, distribution channels, material handling, advertising, and personal selling.

## 105 SALESMANSHIP PRINCIPLES 3 UNITS

CSU, Associate Degree Applicable

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level or equivalent, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Study of the psychology involved in selling services, goods, ideas, and one's own personality; examination of the problems of analyzing the sales talk, making an adequate approach, meeting objectives and excuses, closing the sale, and others.

**106 RETAIL MANAGEMENT 3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 015**Lecture: Minimum 48 hours per semester*

Principles and practices used in the management of retail stores. Includes site selection, layout, organization, staffing, positioning, customer service, promotional techniques and all aspects of the critical buying function.

**110 ADVERTISING 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level or equivalent, ENGL 015**Lecture: Minimum 48 hours per semester*

Principles, purposes, and practices of advertising; analysis of the channels of trade, the importance of the correct appeal, style, trademarks, headlines, typography, color, layout, ethics, and other problems involved in effective advertising. No artistic ability required.

**198 MARKETING WORK EXPERIENCE 2 - 4 UNITS***CSU\*, Associate Degree Applicable**Prerequisite: Enrolled in Marketing occupational program and working at a job directly related to student's major**Corequisite: Enrolled in at least 7 units, including this Work Experience course**Work Experience: 150-300 hours Paid Employment  
120-240 hours Unpaid Employment*

Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

# MATHEMATICS (MATH)

Department:	Physical Science/Mathematics
Department Head:	Sherri Wilson, M.S.
Faculty:	Robert Crise, M.A. Merrill Deming, M.A. Kathleen Gibson, M.A. Stephen Ramirez, M.A. Sherri Wilson, M.S.

**ASSOCIATE OF SCIENCE DEGREE  
MATHEMATICS**

REQUIRED COURSES:	UNITS
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5

*Select five units from the following:*

MATH 108 Statistics	(4)
MATH 115 The Ideas of Mathematics	(3)
MATH 151 Precalculus	(4)
MATH 254 Introduction to Ordinary Differential Equations	(4)
CIS 103 Programming In Visual Basic	(3)
CIS 114 C++ Programming	(3)
CIS 115 Programming in C	(3)
CIS 116 C++ Programming II	(3)
PHYSIC 110 General Physics I	(4)
PHYSIC 111 General Physics II	(4)
PHYSIC 200 Physics I	(6)
PHYSIC 201 Physics II	(6)
<b>TOTAL UNITS</b>	<b>18</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**090 ELEMENTARY ALGEBRA 4 UNITS***Associate Degree Applicable**Prerequisite: MATH 952 or a high school (or GED) diploma**Lecture: Minimum 64 hours per semester*

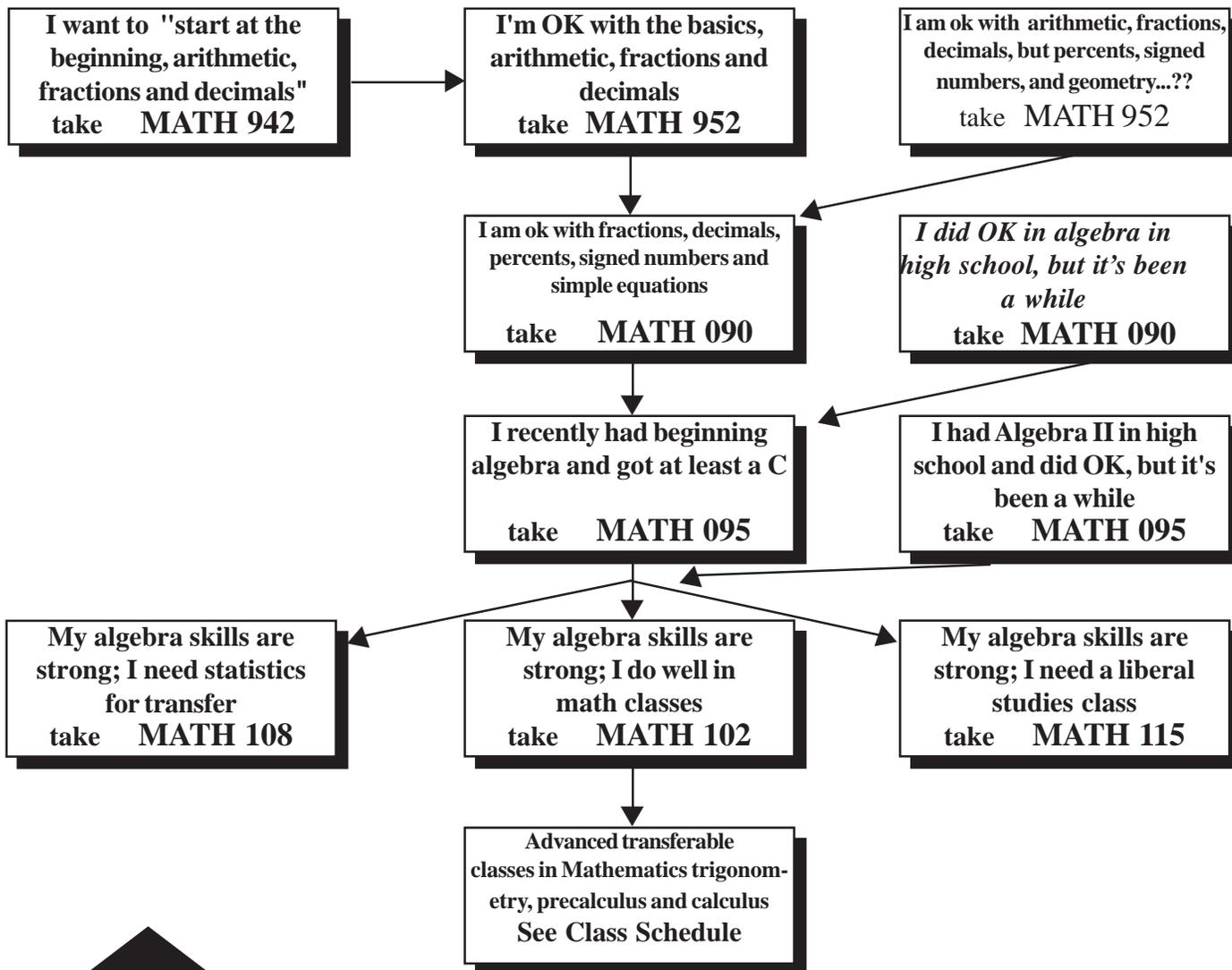
This course will include the basic topics of algebra, including operations with signed numbers and algebraic expressions. The algebra of integer exponents will be studied. The solution of first degree, fractional, and literal equations will be addressed, as will be an introduction to the solution of quadratic equations by factoring and formula. Emphasis will be placed on mastery in factoring (including common factors, difference of squares, sum and difference of cubes, trinomials, and grouping). Rational expressions will also be emphasized. Included in this course will be the study of first degree equations in two variables and their transformation into a graphical representation.

**093 PLANE GEOMETRY 4 UNITS***Associate Degree Applicable**Prerequisite: MATH 090 or equivalent**Lecture: Minimum 64 hours per semester*

Fundamentals of plane geometry developed by inductive and deductive processes, with emphasis on deductive reasoning. Topics addressed include basic definitions and axioms, geometric constructions, congruent triangles, similar triangles, parallel lines, quadrilaterals, circles and area.

# Levels and Order of Mathematics Classes

The ability to think and reason using numerical concepts is an essential skill. There are several possible starting points for you to enter at the right level. Starting at the right class will let you move from class to class successfully and get to the point you need in the shortest amount of time. Start with the statement that best describes you and follow that path. **A Counselor can show you the skills needed for each class.**





## Visit The Learning Center

3<sup>rd</sup> floor of the Library

**Free tutoring for all Math Classes**

For tutor availabilities and schedules, come to the 3<sup>rd</sup> floor of the Library

exponents

fractions

equations

word problems

factoring

signed numbers

**095 INTERMEDIATE ALGEBRA 4 UNITS***Associate Degree Applicable**Prerequisite: MATH 090 or equivalent**Lecture: Minimum 64 hours per semester*

This course provides additional rigor above the level taught in Elementary Algebra in factoring, fractions, and equations. Students also study inequalities with absolute value, rational exponents, radicals, quadratic and exponential functions, linear and nonlinear systems of equations and functions and their inverses. Building linear equations from geometric characteristics is also taught.

**102 COLLEGE ALGEBRA 4 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: MATH 095 or equivalent**Lecture: Minimum 64 hours per semester*

This course will include logarithms, sequences, series, the Binomial Theorem, graphing conic sections, inverse functions, operations with radicals with different indices, systems of quadratic equations, and solving systems of three or more linear equations in three or more variables by matrices, and determinants. There will also be an introduction to graphing rational function, and the theory of equations.

\* MATH 102 and MATH 151, maximum UC credit one course.

**103 PLANE TRIGONOMETRY 4 UNITS***CSU, Associate Degree Applicable**Prerequisite: MATH 102 or equivalent**Lecture: Minimum 64 hours per semester*

This course includes the definitions of the circular functions, their inverses, and their properties and graphs. Emphasis is placed on mastering trigonometric identities and the solution of trigonometric equations. Applications of these topics to the solution of triangles and vector representations are presented.

**108 STATISTICS 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 095**Lecture: Minimum 64 hours per semester*

Introduction to probability, descriptive and inferential statistics, with application to the natural sciences, business, economics, and behavioral sciences.

**115 THE IDEAS OF MATHEMATICS 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 095 or equivalent**Lecture: Minimum 48 hours per semester*

Sets, propositional logic, and the applications to topics from discrete mathematics including enumeration techniques and finite probability spaces.

**141 CALCULUS FOR BUSINESS 4 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: MATH 102**Lecture: Minimum 64 hours per semester*

This is an introductory study, which includes graphing, differentiation and integration of rational, exponential, and logarithmic functions in single and multivariable forms. An emphasis is placed on applications of calculus in business and economics.

\*No UC Credit for MATH 141 if taken after MATH 250 or 251.

**151 PRECALCULUS 4 UNITS***UC\*, CSU, Associate Degree Applicable**Prerequisite: MATH 103 or equivalent**Lecture: Minimum 64 hours per semester*

This course includes the study of inequalities; absolute value; functions and functional notation; quadratic equations (in two variables); sketching conic sections and rational functions; theory of equations; general forms of conic sections; induction, including the binomial theorem, an introduction to analytic geometry and its proofs, and an introduction to limits and continuity.

\* MATH 102 and MATH 151, maximum UC credit one course.

**250 SINGLE VARIABLE CALCULUS I 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 151 or equivalent**Lecture: Minimum 64 hours per semester*

The study of relations and functions, limits and continuity, derivatives of algebraic, trigonometric, implicit, exponential, logarithmic, and inverse trigonometric functions. Applications of the derivatives include maxima and minima, graphing relations and functions, and related rates. The curriculum also includes Rolle's Theorem, and the mean value theorem.

**251 SINGLE VARIABLE CALCULUS II 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 250 or equivalent**Lecture: Minimum 64 hours per semester*

The study of integration of algebraic, trigonometric, exponential, logarithmic, and inverse trigonometric functions. Applications of the integrals include area between curves, volume of revolution, length of a plane curve, area of a surface of revolution, rectilinear motion, work done by a variable force (including Hooke's Law), and fluid pressure and force. Also addressed are improper integrals, conic sections, parametric equations, infinite series, and polar coordinates. The curriculum also includes both the First and the Second Fundamental Theorems of Calculus.

**252 MULTIVARIABLE CALCULUS 5 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 251 or equivalent**Lecture: Minimum 80 hours per semester*

The study of vectors and solid analytic geometry, functions of several variables, partial derivatives, multiple integrals, and line and surface integrals. The course includes Stoke's Theorem, Green's Theorem, and divergence theorem. (CAN MATH 22)

**254 INTRODUCTION TO ORDINARY DIFFERENTIAL EQUATIONS 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MATH 251**Lecture: Minimum 64 hours per semester*

Introduction to first order equations, second order linear equations, systems of first order linear equations, series solutions, Laplace transforms and applications to the physical and biological sciences.

**942 ARITHMETIC 4 UNITS***Not Applicable to the Associate Degree**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 48 hours per semester*

Study of the fundamental operations involving whole numbers, fractions, decimals, and percents.

**952 PREALGEBRA 4 UNITS**

*Not Applicable to the Associate Degree*  
*Prerequisite: MATH 942 or equivalent according to CHC placement procedures*

*Lecture: Minimum 64 hours per semester*  
 This course prepares students for elementary algebra, MATH 090, providing a transition from arithmetic to algebra, covering operations with signed numbers, solving simple single variable linear equations, combining like terms, ratios, proportions, percents and their applications, perimeter, area, and volume of common geometric figures. Fractions and decimals are reviewed throughout the course.

# MICROBIOLOGY (MICRO)

Department: Biological Sciences and Chemistry  
 Department Head: Lisa Shimeld, M.S.  
 Faculty: Lisa Shimeld, M.S.

**ASSOCIATE OF SCIENCE DEGREE  
 MICROBIOLOGY  
 see BIOLOGY**

**102 INTRODUCTORY MICROBIOLOGY 4 UNITS**

*UC\*, CSU, Associate Degree Applicable*  
*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*  
*Laboratory: Minimum 48 hours per semester*  
 Introduction to microbiology, emphasizing the general characteristics of microorganisms, principles of microbial growth, identification, and control, and the relationships between human beings and microbes. Special attention is given to infectious diseases. Recommended for students in health occupations. Surveys of bacteria, fungi, viruses, and parasitic protozoans are included.  
 \* MICRO 102 and MICRO 150 combined: Maximum UC credit - 5 units.

**150 MEDICAL MICROBIOLOGY 5 UNITS**

*UC\*, CSU, Associate Degree Applicable*  
*Prerequisite: CHEM 101*

*Lecture: Minimum 48 hours per semester*  
*Laboratory: Minimum 96 hours per semester*  
 Study of microbiology, emphasizing the biology of microorganisms including bacteria, fungi, protozoans, helminths, and viruses. Introduces the student to the fundamental principles of medical microbiology including microbial cultivation, metabolism, genetics, growth, and control. Principles of epidemiology, disease transmission and a survey of communicable diseases are also included.  
 \* MICRO 102 and MICRO 150 combined: Maximum UC credit - 5 units.

**151 ADVANCED MEDICAL MICROBIOLOGY 3 UNITS**

*Associate Degree Applicable*  
*Prerequisite: MICRO 150*  
*Lecture: Minimum 48 hours per semester*

Advanced study of clinical microbiology. Microorganisms as agents of disease in humans and domestic animals, host-parasite relations, and chemotherapy, humoral and cell-mediated immunity, diagnosis, treatment, and the epidemiology of infectious diseases. Surveys of infectious diseases of humans and domestic animals caused by bacteria, viruses, fungi, parasitic protozoans, and helminths.

**SPECIAL PROBLEMS IN MICROBIOLOGY**  
**246AB 1 UNIT**  
**247AB 2 UNITS**  
**248AB 3 UNITS**

*UC\*, CSU, Associate Degree Applicable*  
*Prerequisite: MICRO 150*  
*Independent Study: Minimum 48 hours per semester*  
 Independent projects for selected students with a special interest in microbiology, involving library research and/or laboratory projects.

# MUSIC (MUSIC)

Department: Fine Arts  
 Department Head: Marc Wurmbrand, M.F.A.  
 Faculty: Mark McConnell, M.M.

**ASSOCIATE OF ARTS  
 MUSIC**

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
MUSIC 101	Music Theory I	3
MUSIC 102	Music Theory II	3
MUSIC 103	Introduction to and Appreciation of American Popular Music	3
MUSIC 135X4	Piano (must be taken four times)	8
<i>Select eight units from the following:</i>		
MUSIC 150X4	Mixed Chorus	(2)
MUSIC 156X4	Concert Choir	(2)
MUSIC 174X4	Jazz Ensemble	(2)
MUSIC 175X4	Jazz Band Workshop	(2)
<b>TOTAL UNITS</b>		<b>25</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 FUNDAMENTAL SKILLS IN MUSIC 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Basic music theory and practical applications to develop an understanding of the elements of music. Study of pitch, rhythm, notation, and sight reading. Includes sight singing and introduction to keyboard and simple rhythmic instruments.

**101 MUSIC THEORY I 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

First course in a progressive study through four semesters includes work in sight singing, dictation, rhythm, scales, intervals, key signatures, and harmonic techniques from the Common Practice Era to Serialism. Open to both music majors and non-majors.

**102 MUSIC THEORY II 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MUSIC 101**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

Second course in a progressive study through four semesters including work in sight singing, dictation, rhythm, scales, intervals, key signatures, and harmonic techniques from the Common Practice Era to Serialism.

**103 INTRODUCTION TO AND APPRECIATION OF AMERICAN POPULAR MUSIC 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of the history of American music with an emphasis on popular music of the past 80 years. Included are units on rock, jazz, and musical comedy.

**105X2 MUSICIANSHIP 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester**Laboratory: Minimum 16 hours per semester*

Study of melodic rhythmic dictation, drill in sight reading, and analysis of music of the masters using keyboard harmonies. This course may be taken two times.

**112A JAZZ THEORY AND MUSICIANSHIP I 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Ability to read music**Lecture: Minimum 48 hours per semester*

Study of the elements of contemporary jazz theory, emphasizing techniques of jazz improvisation.

**112B JAZZ THEORY AND MUSICIANSHIP II 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Ability to read music**Lecture: Minimum 48 hours per semester*

Study of the elements of contemporary jazz theory, emphasizing techniques of jazz improvisation.

**120 APPRECIATION OF MUSICAL LITERATURE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to musical literature. This course is designed to develop an understanding of music and musicians in a societal and historical context.

**130X2 ELEMENTARY VOICE 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Ability to match pitches**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 32 hours per semester*

Introduction to the proper use of the voice in both singing and speaking, including techniques of posture, breathing, breath control, tone color, diction, use of the simple musical repertoire, and beginning interpretation. This course may be taken two times.

**132X4 GUITAR 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Student must have his/her own guitar**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 32 hours per semester*

Progressive study of the basic techniques of playing the guitar, including instruction in chords; arpeggios in all keys; improvisation; accompaniment; sightreading; transposition; folk, classical, jazz, and pop styles in major and minor scales; introduction to the literature and style of classical guitar; solo and ensemble guitar of the different periods of musical history; introduction of three octave scales in all keys; development of skills in rare time meters and rhythms. This course may be taken four times.

**134 AMERICAN JAZZ MUSIC — PAST AND PRESENT 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of the evolution of jazz as an American musical art form; knowledge of the men and women who developed jazz from its early beginnings up to the present time; listening to all the major jazz artists and their innovations.

**135X4 PIANO 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: MUSIC 100**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 32 hours per semester*

Progressive class instruction in piano, including scale techniques, sight-reading, ensemble playing, basic literature, keyboard techniques, and musicianship skills. This course may be taken four times.

**143X4 WOODWIND, BRASS AND PERCUSSION INSTRUCTION 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Ability to match pitches and perform basic manual skills**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 32 hours per semester*

Class instruction on wind and percussion instruments. A beginning level class open to all, but students must provide their own instruments. Music majors interested in learning a second instrument are encouraged to take advantage of this opportunity. This course may be taken four times.

**150X4 MIXED CHORUS 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Foundational techniques in such aspects of choral music as breathing, tone production, enunciation and musicianship, especially recommended for pre-teaching and liberal arts majors who desire vocal training. This course may be taken four times.

**154X4 COLLEGE SINGERS 1 - 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Audition with instructor**Lecture: Minimum 8-16 hours per semester**Laboratory: Minimum 40-80 hours per semester*

Study and performance of outstanding representative choral works from all periods of music history.

**156X4 CONCERT CHOIR 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Faculty recommendation through audition**Departmental Recommendation: MUSIC 150X4 or equivalent**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Performance and study of choral works from all periods of music. This course may be taken four times.

**164X4 COLLEGE CONCERT BAND (COMMUNITY) 1 - 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Intermediate or high performance level on traditional band instrument**Laboratory: Minimum 48 hours per semester per unit*

Study of band literature, stressing the finest of concert literature for band use. This course may be taken four times.

**174X4 JAZZ ENSEMBLE 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: Demonstrate performance proficiency on instrument/voice through audition**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Study and performance of Jazz literature, style, and interpretation. Open to instrumentalists and vocalist. Performance required. This course may be taken four times.

**175X4 JAZZ BAND WORKSHOP 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MUSIC 174X4 and/or faculty recommendation through audition**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 48 hours per semester*

Continued study and performance of Jazz literature, style, and interpretation. Advanced performance level; performance required. This course may be taken four times.

**180X4 REHEARSAL AND PERFORMANCE 1- 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Advanced performance ability on instrument or voice**Laboratory: Minimum 32 hours per semester*

Preparation and public performance and musical plays, operettas, operas and/or oratorios for both vocalists and instrumentalists. This course may be taken four times.

**201 MUSIC THEORY III 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MUSIC 102**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

Third course in a progressive study through four semesters including work in sight singing, dictation, rhythm, scales, intervals, key signatures, and harmonic techniques from the Common Practice Era to Serialism. Music Theory III includes detailed study of form, modulation, modal harmony, and extended compositional techniques.

**202 MUSIC THEORY IV 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: MUSIC 201**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

Fourth course in a progressive study through four semesters including work in sight singing, dictation, rhythm, scales, intervals, key signatures, and harmonic techniques from the Common Practice Era to Serialism. Music Theory IV includes detailed study of form, modulation, modal harmony, and extended compositional techniques.

## OCEANOGRAPHY (OCEAN)

Department: Physical Science/Mathematics

Department Head: Sherri Wilson, M.S.

**101 ELEMENTS OF OCEANOGRAPHY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Study of the basic principles of oceanography, including geology, physics, chemistry, and biology of the oceans. Topics include the structure of the earth and sea floor, the physics and chemistry of the ocean, atmospheric wind and ocean circulation, waves, currents, tides, marine plants, and animals, ecological concepts, and environmental concerns. Tools of oceanographic inquiry include maps, remote sensing, Geographic Information Systems, Global Positional Systems, and field trips.

# PERSONAL CAREER DEVELOPMENT (PCD)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.

## 055 STUDENT SUCCESS AND THE COLLEGE EXPERIENCE 1 UNIT

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 14 hours per semester*

*Laboratory: Minimum 6 hours per semester*

Provides for assessment of basic skills, career interest and personal awareness. Includes orientation to the college services, liberal arts and vocational studies programs, information on degree requirements, and transfer to four-year institutions. Assists students in the process of career/life planning. Satisfies the freshman orientation segment of the state mandated Matriculation Process. This course is required of all students entering college for the first time. (Formerly PSYCH 055)

## 090 EDUCATION AND INTERPERSONAL GROWTH 3 UNITS

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Designed to foster personal development through a decision making process which includes value systems, self awareness, changing lifestyles, patterns of communication, and how these factors affect the student's education, growth and goals.

## 111 CAREER LIFE PLANNING 3 UNITS

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Designed to cover theories and concepts of values, interests, skills and personality development as applied to the career/life planning process and its application to labor market trends for beginning or returning students. Short and long term career/life plans will be developed. Awareness of diversity is infused throughout the course as it relates to varied psychological and sociological forces within both college and the work place.

# PHILOSOPHY (PHIL)

Department: Social Science  
 Department Head: Mario Perez, M.A.  
 Faculty: J. Christopher Biffle, M.A.

## ASSOCIATE OF ARTS DEGREE PHILOSOPHY

REQUIRED COURSES:		UNITS
PHIL 101	Introduction to Philosophy	3
PHIL 103	Introduction to Logic: Argument and Evidence	3
PHIL 105	Moral Values in Today's Society	3
RELIG 101	Introduction to World Religions	3
RELIG 110	Primitive Religions	3
INTDIS 101	The Humanities	(3)
	OR	
INTDIS 102	The Humanities	(3)
	<b>TOTAL UNITS</b>	<b>18</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

## 101 INTRODUCTION TO PHILOSOPHY 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Comprehension at or above the 12th grade level, ENGL 015*

*Lecture: Minimum 48 hours per semester*

Introduction to the major problems of philosophy, utilizing classical and modern philosophical literature as a basis for discussion of epistemology, metaphysics, ethics and aesthetics.

## 103 INTRODUCTION TO LOGIC: ARGUMENT AND EVIDENCE 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

*Departmental Recommendations: Reading: Comprehension at or above the 12th grade level, ENGL 101*

Introduction to the techniques of critical thought, including language analysis, inductive and deductive logic, symbolic logic and the development of the scientific method.

**105 MORAL VALUES IN TODAY'S SOCIETY 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: ENGL 101, 12th grade reading level**Lecture: Minimum 48 hours per semester*

Study of moral philosophy, with analysis of the basic ideas and principles involved in moral conduct, including the concepts of good, right, virtue, obligation and conscience. Problems of truthfulness, race, sex, marriage and war or peace are examined in relation to moral philosophy. Special attention is given to contemporary problems.

## PHYSICAL EDUCATION

Department: Health and Physical Education  
 Department Head: Deborah DeSalliers, Dr.P.H.  
 Faculty: Deborah DeSalliers, Dr.P.H.  
 Janine Ledoux, Dr.P.H.  
 Ralph Rabago, M.S.

## PERSONAL ACTIVITIES (PE)

**263 NUTRITION AND HEALTH 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

This course reviews the literature on the basic nutrients; protein, fat, carbohydrates, vitamins, minerals, and water. Students will have the opportunity to develop the skills necessary to analyze, evaluate and prescribe a dietary intake for "healthy" individuals. The class includes an in-depth analysis of emotional stress as a lifestyle factor in disease. This course is also offered as HEALTH 263.

## INDIVIDUAL & GROUP ACTIVITIES (PE/I)

All courses in this section provide instruction in the basic skills and techniques of the sport or activity. Each course is designed to improve physical fitness; some provide recreational skills for life-long enjoyment of leisure time.

**NOTE:** A maximum of 4 units of activity classes will transfer to the UC or CSU. There are no limits on the number of units that will transfer to UC for the following dance classes: PE/I 130X4, PE/I 143X4, PE/I 163X4, PE/I 167X4

**070X4 FITNESS EVALUATION .25 UNIT***Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 12 hours per semester*

Health evaluation is a testing regime that assesses cardiovascular fitness, strength, flexibility, health history, hydration, body fat, body lean, and dietary intake. Recommendations for an exercise and nutrition program are given to students based on stated personal needs. Students then follow a prescribed program and re-test to track health changes. Offered for Credit or No Credit only. This course may be taken four times.

**105X4 AEROBICS .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed for beginners, with little/no aerobic fitness knowledge and/or experience and for advanced students who desire a more vigorous exercise regimen. The specific aerobic fitness class is described in the current class schedule (i.e. boot camp, interval, step & pump, kick boxing, sculpt & define and "tae bo"). This course may be taken four times.

**106X4 TOTAL BODY FITNESS .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

Total body fitness is designed for men and women who are interested in improving both cardiovascular fitness and strength. The class will incorporate various cardiovascular and strength training regimens to promote optimal conditioning. Individual programs will be developed for each student. This course may be taken four times.

**108X4 WEIGHT TRAINING .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed for beginners, with little/no weight training knowledge and/or skills and for advanced students who desire more sophisticated routines (negative workouts, giant setting, pyramids, split routines, etc.) Included in instruction are basic principles, body mechanics and dietary prescription. A complete, individualized program will be developed for each student. This course may be taken four times.

**120X4 GOLF .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course develops playing and competitive skills for the life-time benefits of participation in the sport of golf. Included in instruction will be skills, techniques, strategies, rules, and etiquette. This course may be taken four times.

**127X4 WALKING FOR FITNESS .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

Walking for fitness is suited for men and women of all ages and fitness levels. Various walking routes on the campus will provide the backdrop for this class which is designed to promote weight loss through walking and to improve cardiovascular health and general well-being. This course may be taken four times.

**130X4 JAZZ DANCE 1 - 2 UNITS***UC, CSU\*, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 8-16 hours per semester**Laboratory: Minimum 16-32 hours per semester*

This course is designed for beginning students, with little or no experience in jazz dance, and for advanced students who wish to clarify technical problems and deficiencies. The physical and historical perspectives of jazz are emphasized with instruction in jazz techniques using various styles and approaches within the jazz idiom. This course is also offered as THART 130X4. This course may be taken four times.

**143X4 FUNK/HIP HOP DANCE .5 - 1 UNIT***UC, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed for beginning students, with little or no experience in funk/hip hop dance, and for advanced students who wish to clarify technical problems and deficiencies. Students will develop skills that will enable them to perform dance steps in video dancing using techniques such as brake, pop style and up-tempo. This course may be taken four times.

**148X4 TENNIS .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course develops playing and competitive skills for the lifetime benefits of participation in the sport of tennis. Included in instruction will be skills, techniques, strategies, rules, and etiquette. This course may be taken four times.

**155X4 CONDITIONING WITH THE PILATES METHOD .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

The Pilates Method of exercise is a combination of yoga and strength training. The training regime focuses on improving strength and flexibility with minimal stress to the body. It is an excellent form of exercise for any student, including students with physical limitations. This course may be taken four times.

**159X4 KARATE .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed to teach the principles of unarmed self-defense. Basic skills acquired will include blocking, shifting, punching, striking and kicking techniques. Exercises that promote muscular control, speed of movement and mental alertness will be emphasized. This course may be taken four times.

**163X4 BALLROOM/SWING/SALSA .5 - 1 UNIT***UC, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed to teach the basic principles of Ballroom/Swing/Salsa dance. Physical skills emphasized will include rhythm, syncopation, partnering and body expression. Dance forms include Waltz, Foxtrot, East Coast Swing, West Coast Swing, Cha-Cha and Salsa. This course may be taken four times.

**167X4 TAP DANCE .5 - 1 UNIT***UC, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course is designed to teach the basic principles of the Tap idiom. Combinations and dances based upon Tap steps and movements is the framework of the class. Physical skills commonly used in musical and theatre productions will be emphasized. This course may be taken four times.

**168X4 YOGA .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

Yoga is suited for men and women of all ages and fitness levels. This class is designed to teach the basic principles of Yoga with emphasis on the practice and mastery of Yoga postures. Through a system of Yoga exercises, students will train to develop the interconnection between mind and body. This course may be taken four times.

**200F-ZX3 SELECTED TOPICS IN PHYSICAL EDUCATION .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

Courses in sports, dance or conditioning that reflect current trends. This course may be taken three times.

## TEAM ACTIVITIES (PE/T)

**130X4 TEAM SPORTS (CO-ED) .5 - 1 UNIT***UC\*, CSU\*, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 24-48 hours per semester*

This course develops playing skills for the lifetime benefit of participants in a variety of team sports. Included in instruction will be rules, basic skills, techniques, and strategies. The specific sport for each class will be announced in the class schedule. This course may be taken four times.

# PHYSICS (PHYSIC)

Department: Physical Science/Mathematics  
 Department Head: Sherri Wilson, M.S.  
 Faculty: Matthew Adams, Ph.D.

## ASSOCIATE OF SCIENCE DEGREE PHYSICS

REQUIRED COURSES:	UNITS
PHYSIC 200 Physics I	6
PHYSIC 201 Physics II	6
CHEM 150 General Chemistry I	5
CHEM 151 General Chemistry II	5
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
<b>TOTAL UNITS</b>	<b>35</b>

RECOMMENDED COURSE:	UNITS
MATH 254 Introduction to Ordinary Differential Equations	4

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

### 100 INTRODUCTION TO PHYSICS 4 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to the ideas, concepts, and theories of physics including mechanics, waves, heat, electromagnetism and atomic and nuclear structure; a nonmathematical course. \* No UC credit if taken after PHYSIC 110, 111, 200 or 201.

### 110 GENERAL PHYSICS I 4 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisites: PHYSIC 100 and MATH 103*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to mechanics, heat and waves.

\* PHYSIC 110 + 111 or 200 + 201: Maximum UC credit one series.

### 111 GENERAL PHYSICS II 4 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite: PHYSIC 110*

*Lecture: Minimum 48 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Introduction to optics, electricity, and atomic and nuclear physics.

\* PHYSIC 110 + 111 or 200 + 201: Maximum UC credit one series.

### 200 PHYSICS I 6 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisites: PHYSIC 100 and MATH 250*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Study of physics, including mechanics, conservation laws, fluids, thermodynamics, wave motion, optics, electricity, magnetism, Maxwell's Equations, relativity, vector analysis, quantum theory, structure of atoms, nuclei, molecules and solids.

\* PHYSIC 110 + 111 or 200 + 201: Maximum UC credit one series.

### 201 PHYSICS II 6 UNITS

*UC\*, CSU, Associate Degree Applicable*

*Prerequisites: PHYSIC 200 and MATH 251*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 48 hours per semester*

Study of physics, including optics, electricity, magnetism, Maxwell's Equations, relativity, vector analysis, quantum theory, structure of atoms, nuclei, molecules and solids.

\* PHYSIC 110 + 111 or 200 + 201: Maximum UC credit one series.

# POLITICAL SCIENCE (POLIT)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.

## ASSOCIATE OF ARTS DEGREE POLITICAL SCIENCE

REQUIRED COURSES	UNITS
POLIT 100 American Politics	3
ECON 200 Principles of Macroeconomics	3
ECON 201 Principles of Microeconomics	3
GEOG 110 Physical Geography	3
HIST 100 History of the United States to 1877	3
HIST 101 History of the United States 1865 to Present	3
PHIL 103 Introduction to Logic: Argument and Evidence	3
<b>TOTAL UNITS</b>	<b>21</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

**100 AMERICAN POLITICS**

**3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: ENGL 101*

*Lecture: Minimum 48 hours per semester*

This is an introductory course in the fundamentals of American government and politics, which meets the state requirements in the United States and California government. Students are introduced to basic concepts in political science; to key institutions in the American political system; to the major problems in United States foreign policy; and to political issues that confront the nation and state today.

**080 MATH WITHOUT FEAR**

**.5 UNIT**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 8 hours per semester and or*

*Laboratory: Minimum 8 hours per semester*

Examination of the problem of math anxiety. This is a course for students at any level of mathematics who have avoided the subject or have developed a fear of mathematics. A variety of appropriate mathematical and psychological topics will be discussed through individual, small group, and large group activities. This class is not a review course in mathematics. It is designed to help students in a non-intimidating environment, to recognize, understand, and deal with the fear of mathematics.

# PSYCHOLOGY (PSYCH)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.  
 Faculty: T.L. Brink, Ph.D.  
 Sandra Moore, Ph.D.

**ASSOCIATE OF ARTS DEGREE PSYCHOLOGY**

REQUIRED COURSES:	UNITS
PSYCH 100 General Psychology	3

*Select six units from the following:*

PSYCH 102 Personal and Social Adjustment	(3)
PSYCH 110 Abnormal Psychology	(3)
PSYCH 112 Child and Adolescent Psychology	(3)
PSYCH 150 Gerontology	(3)

*Select nine units from the following, of which at least six units must be PSYCH courses:*

PSYCH 103 Psychology of Personality	(3)
PSYCH 116 Psychology of Sex Roles	(3)
PSYCH 118 Human Sexual Behavior	(3)
PSYCH 132 Counseling and Interviewing Techniques	(3)
SOC 100 Introduction to Sociology	(3)
SOC 105 Social Problems	(3)
<b>TOTAL UNITS</b>	<b>18</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 GENERAL PSYCHOLOGY**

**3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Reading: Passing a standardized test of reading comprehension at or above the*

*12<sup>th</sup> grade level, MATH 090, eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of the nature and scope of psychology as a science including the principles of neurophysiology, sensation, perception, learning, altered states of consciousness, memory, cognition, intelligence, language, creativity, emotion, motivation, personality, psychopathology, testing, treatment, attitudes, and human development. (CAN PSYCH 2)

**102 PERSONAL AND SOCIAL ADJUSTMENT**

**3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendation: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Examination of human capacity to change, adapt, and cope with a variety of circumstances over the life span. Special attention is paid to the sociocultural contexts of adjustment, the role of self understanding in adjustment, stress, adult development, careers, and family issues. A variety of theoretical perspectives will be used to review healthy and unhealthy behavior patterns as well as coping techniques for day-to-day concerns or issues.

**103 PSYCHOLOGY OF PERSONALITY**

**3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 095*

*Lecture: Minimum 48 hours per semester*

Survey of the theoretical attempts to describe and explain human nature, especially the models of the mind (and/or behavior) developed by psychoanalytic, behavioral, humanistic, and cognitive psychologists.

**110 ABNORMAL PSYCHOLOGY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendation: Reading: Passing a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 095*

*Lecture: Minimum 48 hours per semester*

Survey of the field of mental disturbances: their symptomatology, prevalence, etiology, classification, diagnosis, prevention, and treatment. Psychodynamic, humanistic, cognitive, behavioral, neuroscience, and cross-cultural models will be considered.

**112 CHILD AND ADOLESCENT PSYCHOLOGY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendation: ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of the psychological development of individuals from infancy through adolescence, emphasizing influential psychological theories, contemporary research methods and trends, and applications of theory and research to everyday life.

**113 ADULTHOOD AND OLD AGE 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendations: Reading: Passing a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 090, PSYCH 112*

*Lecture: Minimum 48 hours per semester*

Physical, emotional, cognitive, clinical, social, and cultural perspectives on early adulthood, midlife, and aging, including a review of how roles change with age. Recommended for students seeking careers in human services.

**116 PSYCHOLOGY OF SEX ROLES 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 095*

*Lecture: Minimum 48 hours per semester*

Study of both traditional theories regarding sex roles and modern research results in the field of sex differences.

**118 HUMAN SEXUAL BEHAVIOR 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendation: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of selected factors in human sexual behavior. The emphasis will be on the psychology of sex and an analysis of assumptions and attitudes toward human sexuality. This course will also consider theoretical perspectives and research from the areas of sociology, anthropology, and biology as well as psychology.

**132 COUNSELING AND INTERVIEWING TECHNIQUES 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Departmental Recommendations: Reading: Pass a standardized reading test at or above the 12th grade level, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of and practice in counseling and interviewing techniques. This class introduces students to methods most commonly used in the helping professions.

**133 GROUP DYNAMICS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: PSYCH 100*

*Lecture: Minimum 48 hours per semester*

Examination of membership in and leadership of various kinds of groups, emphasizing factors involved in problems of communication, effective emotional responses, personal growth within groups, and the group process as a whole.

**150 GERONTOLOGY 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 095, PSYCH 100*

*Lecture: Minimum 48 hours per semester*

Physical, emotional, cognitive, social, and economic perspectives on aging, including a review of how roles change with age, and the opportunities available to people over age 55. Recommended for students seeking careers in human services. This course is also offered as SOC 150.

# RADIOLOGIC TECHNOLOGY

## (RADIOL)

Department: Allied Health Services  
 Department Head: Kenneth Bryson, M.A.  
 Liaison Counselor: Robert McAtee, M.A.

### ASSOCIATE OF SCIENCE DEGREE RADIOLOGIC TECHNOLOGY

*Radiologic Technology is a fully accredited, hospital based program operated cooperatively by Crafton Hills College and the Arrowhead Regional Medical Center (ARMC).*

REQUIRED COURSES:	UNITS
RADIOL 100 Introduction to Radiologic Technology	.75
RADIOL 101 Medical Ethics for the Radiographer	.5
RADIOL 102 Radiographic Medical Terminology	1.5
RADIOL 103 Radiographic Positioning I	1.5
RADIOL 104 Radiologic Physics I	1.5
RADIOL 105 Radiographic Anatomy/Physiology I	1.5
RADIOL 106 Radiographic Positioning Lab I	.5
RADIOL 115A Radiographic Clinic	11.25
RADIOL 107 Basic Radiologic Medical Techniques	1.25
RADIOL 108 Radiation Protection I	1.25
RADIOL 109 Radiologic Physics II	1.25
RADIOL 110 Radiographic Exposure I	1.25
RADIOL 111 Radiographic Film Critique I	1.25
RADIOL 112 Radiographic Positioning II	1.25
RADIOL 113 Radiographic Anatomy/Physiology II	1.25
RADIOL 114 Radiographic Positioning Lab II	.5
RADIOL 115B Radiographic Clinic II	10.5
RADIOL 200 Radiation Protection II	1.5
RADIOL 201 Radiographic Exposure II	1.5
RADIOL 202 Radiographic Film Critique II	1.5
RADIOL 203 Radiographic Positioning III	1.5
RADIOL 204 Radiographic Anatomy/Physiology II	1.5
RADIOL 205 Radiographic Exposure Lab	.5
RADIOL 213A Radiographic Clinic III	10.75
RADIOL 207 Radiographic Imaging	1.25
RADIOL 208 Registry Review Test in Radiology	2.75
RADIOL 209 Radiographic Film Critique III – Pathology	1.25
RADIOL 210 Radiographic Positioning IV	1.25
RADIOL 211 Radiographic Anatomy/Physiology IV	1.25
RADIOL 212 Special Procedures in Radiology	1.25
RADIOL 213B Radiographic Clinic IV	11
<b>TOTAL UNITS</b>	<b>77.5</b>

### RADIOLOGIC TECHNOLOGY CERTIFICATE

The objective of this certificate is to prepare students to be competent practitioners in the field of radiography. Completion of the certificate will prepare the student to be eligible for the state and national board examinations, and for entry-level employment in radiography.

Radiologic Technology is an accredited, hospital-based program operated cooperatively by Crafton Hills College and the Arrowhead Regional Medical Center (ARMC).

Program applications, transcripts, and site visit forms must be filed at ARMC School of Radiologic Technology by March 1<sup>st</sup>. Application packets are available from October through January of each year.

Contact the Program Director at ARMC (909) 580-3540 for information on the program, application materials, and interview process.

**Admissions:** The Admissions Committee selects students on the basis of their college grades, satisfactory completion of prerequisite courses, and a personal interview. Interviews are granted to those applicants who have completed (or have in progress) all prerequisite courses with a minimum 2.5 GPA and have submitted a complete application package with the non-refundable fee. The Admissions Committee selects nine students and three alternates.

### MINIMUM QUALIFICATIONS

To be considered for a personal interview, the applicant must: Submit a completed application package and fee; Provide a copy of their High School Diploma or GED; Show documentation of twelve hours of clinical observation; Successfully completed or have in progress the college prerequisites listed below:

### PREREQUISITES

*AH 090	Survey of Radiologic Technology	1.5
*AH 101	Medical Terminology	3.0
*ANAT 101	Essentials of Human Anatomy and Physiology	4.0
*ENGL 101	Freshman Composition	4.0
*CHEM 101	Introduction to Chemistry	4.0
*CIS 101	Introduction to Computers and Information Technology	3.0
*MATH 090	Elementary Algebra	4.0

**\*Students may substitute equivalent or advanced level courses.**

### REQUIRED COURSES

#### FIRST SEMESTER

RADIOL 100	Introduction to Radiologic Technology	.75
RADIOL 101	Medical Ethics for the Radiographer	.50
RADIOL 102	Radiographic Medical Terminology	1.50
RADIOL 103	Radiographic Positioning I	1.50
RADIOL 104	Radiographic Physics I	1.50
RADIOL 105	Radiographic Anatomy/Physiology I	1.50
RADIOL 106	Radiographic Positioning Lab I	.50
RADIOL 115A	Radiographic Clinic I	11.25

**SECOND SEMESTER**

RADIOL 107	Basic Radiologic Medical Techniques	1.25
RADIOL 108	Radiation Protection I	1.25
RADIOL 109	Radiologic Physics II	1.25
RADIOL 110	Radiographic Exposure I	1.25
RADIOL 111	Radiographic Film Critique I	1.25
RADIOL 112	Radiographic Positioning II	1.25
RADIOL 113	Radiographic Anatomy/Physiology II	1.25
RADIOL 114	Radiographic Positioning Lab II	.50
RADIOL 115B	Radiographic Clinic II	10.50

**THIRD SEMESTER**

RADIOL 200	Radiation Protection II	1.50
RADIOL 201	Radiographic Exposure II	1.50
RADIOL 202	Radiographic Film Critique II	1.50
RADIOL 203	Radiographic Positioning III	1.50
RADIOL 204	Radiographic Anatomy/Physiology III	1.50
RADIOL 205	Radiographic Exposure Lab	.50
RADIOL 213A	Radiographic Clinic III	10.75

**FOURTH SEMESTER**

RADIOL 207	Radiographic Imaging	1.25
RADIOL 208	Registry Review Test in Radiology	2.75
RADIOL 209	Radiographic Film Critique III – Pathology	1.25
RADIOL 210	Radiographic Positioning IV	1.25
RADIOL 211	Radiographic Anatomy/Physiology	1.25
RADIOL 212	Special Procedures in Radiology	1.25
RADIOL 213B	Radiographic Clinic IV	11.00
	<b>TOTAL</b>	<b>77.50</b>

**100 INTRODUCTION TO RADIOLOGIC TECHNOLOGY .75 UNIT**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 12 hours per semester*  
 Introduction to the general structure of medicine specifically applicable to radiologic technology; departmental administration, office procedures, radiation protection, equipment care, and basic medical techniques.

**101 MEDICAL ETHICS FOR THE RADIOGRAPHER .5 UNIT**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 100, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 8 hours per semester*  
 Study and practice of professional ethics relative to radiologic technology; emphasis on personal appearance, attitudes, hygiene, and the code of ethics for radiologic technologists.

**102 RADIOGRAPHIC MEDICAL TERMINOLOGY 1.5 UNITS**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 100, RADIOL 101, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 24 hours per semester*  
 Introduction to the written and spoken language of medicine, including the elements of medical terminology, terms abbreviations, spelling, pronunciation and interpreting radiographic requests written in medical phraseology.

**103 RADIOGRAPHIC POSITIONING I 1.5 UNITS**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 24 hours per semester*  
 Study of various anatomical positions necessary to demonstrate specific anatomical parts for diagnostic evaluation; emphasis on chest, abdomen, upper and lower extremities and shoulder girdle.

**104 RADIOLOGIC PHYSICS I 1.5 UNITS**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program.*  
*Corequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 105, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 24 hours per semester*  
 Study of basic radiologic physics including units of measurement, energy, matter, atomic structure, magnetism and other concepts related to the production and control of high voltage.

**105 RADIOGRAPHIC ANATOMY/PHYSIOLOGY I 1.5 UNITS**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 106, RADIOL 115A*  
*Lecture: Minimum 24 hours per semester*  
 Study of basic human anatomy and physiology pertinent to Radiology.

**106 RADIOGRAPHIC POSITIONING LAB I .5 UNIT**

*Associate Degree Applicable*  
*Prerequisite: Must be pre-selected into the X-Ray Technology program*  
*Corequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 115A*  
*Laboratory: Minimum 24 hours per semester*  
 Practice in positioning various anatomical parts for specific radiographic examinations.

**107 BASIC RADIOLOGIC MEDICAL TECHNIQUES 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study of basic nursing techniques and methods of patient care for Radiologic Technologists.

**108 RADIATION PROTECTION I 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study of the basic principles and application of radiation protection, physics, and radiation monitoring devices.

**109 RADIOLOGIC PHYSICS II 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, 104, 105, 106, 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study of the production of X-rays, multiple energy transformation required for radiation production, the mechanics of interaction with matter, X-ray tubes, rectifiers, X-ray circuits, and the history of X-ray tubes.

**110 RADIOGRAPHIC EXPOSURE I 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study of the fundamentals of radiographic exposure techniques, image formation, and technical conversions pertaining to radiography.

**111 RADIOGRAPHIC FILM CRITIQUE I 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Introduction to analyzing radiographic examinations with emphasis on improving film quality and using proper identification labels.

**112 RADIOGRAPHIC POSITIONING II 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 113, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study and demonstration of various anatomical positions necessary to demonstrate specific anatomical parts for diagnostic evaluation; emphasis on pelvic structures and vertebral column.

**113 RADIOGRAPHIC ANATOMY/PHYSIOLOGY II 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 114, RADIOL 115B**Lecture: Minimum 22 hours per semester*

Study of human anatomy and physiology pertinent to radiology.

**114 RADIOGRAPHIC POSITIONING LAB II .5 UNIT***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 115B**Laboratory: Minimum 24 hours per semester*

Practice of positioning anatomical parts for specific radiographic examinations.

**115A RADIOGRAPHIC CLINIC I 11.25 UNITS***Associate Degree Applicable**Prerequisites: Must be pre-selected into the X-Ray Technology program**Corequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106**Clinic: Minimum 900 hours per semester*

Observation and supervised clinical experience; emphasis on the development of primary basic skills in radiologic technology.

**115B RADIOGRAPHIC CLINIC II 10.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 100, RADIOL 101, RADIOL 102, RADIOL 103, RADIOL 104, RADIOL 105, RADIOL 106, RADIOL 115A**Corequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114**Clinic: Minimum 840 hours per semester*

Practice and development of basic radiographic skills within a hospital environment.

**200 RADIATION PROTECTION II 1.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Lecture: Minimum 24 hours per semester*

Study of the biological effects of radiation, cell structure, ionizing radiation, and government regulations regarding its use.

**201 RADIOGRAPHIC EXPOSURE II 1.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Lecture: Minimum 24 hours per semester*

Study of the principles of radiographic exposure methods and procedures pertaining to radiographic technology.

**202 RADIOGRAPHIC FILM CRITIQUE II 1.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 201, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Lecture: Minimum 24 hours per semester*

Analysis of radiographic examinations with emphasis on improving each student's ability to identify anatomical structures on radiographs.

**203 RADIOGRAPHIC POSITIONING III 1.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 204, RADIOL 205, RADIOL 213A**Lecture: Minimum 24 hours per semester*

Study and demonstration of various anatomical positions necessary to demonstrate specific anatomical parts for diagnostic evaluation; emphasis on the thorax and cranium.

**204 RADIOGRAPHIC ANATOMY/PHYSIOLOGY III 1.5 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 205, RADIOL 213A**Lecture: Minimum 24 hours per semester*

Study of human anatomy and physiology pertinent to radiology.

**205 RADIOGRAPHIC EXPOSURE LAB .5 UNIT***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 213A**Laboratory: Minimum 24 hours per semester*

Demonstration and experiments pertaining to the fundamentals of exposure techniques, image formation and technical conversations; demonstration of photographic and geometric properties of radiographic quality.

**207 RADIOGRAPHIC IMAGING 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 208, RADIOL 209, RADIOL 210, RADIOL 211, RADIOL 212, RADIOL 213B**Lecture: Minimum 22 hours per semester*

Study of the history and principles of radiology including nuclear medicine, clinical ultra-sonography, tomography, radiation therapy, computer tomography, and other imaging modalities.

**208 REGISTRY REVIEW TEST IN RADIOLOGY 2.75 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 207, RADIOL 209, RADIOL 210, RADIOL 211, RADIOL 212, RADIOL 213B**Lecture: Minimum 44 hours per semester*

Review and testing of all Radiologic Technology classes in preparation for board examination.

**209 RADIOGRAPHIC FILM CRITIQUE III — PATHOLOGY 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 207, RADIOL 208, RADIOL 210, RADIOL 211, RADIOL 212, RADIOL 213B**Lecture: Minimum 22 hours per semester*

Study of disease, basic concepts of pathology, pathological conditions of the body and their impact on the radiographic process.

**210 RADIOGRAPHIC POSITIONING IV 1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 207, RADIOL 208, RADIOL 209, RADIOL 211, RADIOL 212, RADIOL 213B**Lecture: Minimum 22 hours per semester*

Study and demonstration of various anatomical positions necessary to demonstrate specific anatomical parts for diagnostic evaluations; emphasis on osseous structures of the face; genitourinary and gastrointestinal systems.

**211 RADIOGRAPHIC ANATOMY/PHYSIOLOGY IV**  
**1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 207, RADIOL 208, RADIOL 209, RADIOL 210, RADIOL 212, RADIOL 213B**Lecture: Minimum 22 hours per semester*

Advanced study and review of human anatomy and physiology pertinent to radiology.

**212 SPECIAL PROCEDURES IN RADIOLOGY**  
**1.25 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213A**Corequisites: RADIOL 207, RADIOL 208, RADIOL 209, RADIOL 210, RADIOL 211, RADIOL 213B**Lecture: Minimum 22 hours per semester*

Study of the fundamentals of angiography and the special procedures, equipment, positioning, and techniques involved in producing diagnostic radiographs.

**213A RADIOGRAPHIC CLINIC III** **10.75 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 107, RADIOL 108, RADIOL 109, RADIOL 110, RADIOL 111, RADIOL 112, RADIOL 113, RADIOL 114, RADIOL 115B**Corequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205**Clinic: 872 hours per semester*

Advanced clinical experience; emphasis on further development of skills in radiologic technology.

**213B RADIOGRAPHIC CLINIC IV** **11 UNITS***Associate Degree Applicable**Prerequisites: RADIOL 200, RADIOL 201, RADIOL 202, RADIOL 203, RADIOL 204, RADIOL 205, RADIOL 213B**Corequisites: RADIOL 207, RADIOL 208, RADIOL 209, RADIOL 210, RADIOL 211, RADIOL 212**Clinic: 884 hours per semester*

Advanced clinical experience; emphasis on perfecting learned skills and techniques of radiography.

# READING AND STUDY SKILLS

  
**(READ)**

Department:	Language Arts
Department Head:	Mark Snowwhite, M.A.
Faculty:	Lynn Lowe, M.A.

**078X2 ADVANCED READING** **3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: A minimum score of 65 on the reading portion of the college placement test or minimum of 10th grade level on the Nelson-Denny Reading Test**Lecture: Minimum 48 hours per semester*

Designed to enhance students' reading skills, this course involves attending lectures and doing in-class assignments. Students must also complete individualized laboratory activities designed to increase vocabulary and comprehension, based on assessed reading ability. This course may be taken two times.

**091 COLLEGE STUDY SKILLS** **1 - 3 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester or**Laboratory: Minimum 48-144 hours per semester*

Instruction in the skills of listening, notetaking, class preparation and participation, organizing and analyzing textbook material, and using the library. Provides methods for the improvement of concentration, memory and test-taking.

**925X2 INTRODUCTION TO READING** **3 UNITS***Not Applicable to the Associate Degree**Prerequisite: None**Departmental Recommendation: Score between 0-34 on the reading portion of the CHC assessment test, or 4th, 5th, 6th grade level on the Nelson-Denny Reading Test**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

The first in a sequence of courses that introduce skills of vocabulary development, reading comprehension, phonetic awareness and usage. Practice in reading passages at a developmental level. This course may be taken two times.

**956X2 INTERMEDIATE READING** **3 UNITS***Not Applicable to the Associate Degree**Prerequisite: None**Departmental Recommendation: Score between 35-64 on the reading portion of the CHC assessment test, or 7th, 8th, or 9th grade level on the Nelson-Denny Reading Test**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 24 hours per semester*

The second in a sequence of courses that introduce skills of vocabulary development, reading comprehension, phonetic awareness and usage. Practice in reading passages at an intermediate level. This course may be taken two times.

# REAL ESTATE (REALST)

Department: Business  
 Dean: Donna Ferracone, M.A.

## 100 REAL ESTATE PRINCIPLES 3 UNITS

CSU, Associate Degree Applicable

Prerequisite: None

Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th Grade level, ENGL 015

Lecture: Minimum 48 hours per semester

Fundamentals of real estate covering basic laws and principles of California real estate. Required course for Real Estate Sales License. May also be used as one of the courses for the Broker's License.

# RELIGIOUS STUDIES (RELIG)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.  
 Faculty: J. Christopher Biffle, M.A.  
 T.L. Brink, Ph.D.

## ASSOCIATE OF ARTS DEGREE RELIGIOUS STUDIES

REQUIRED COURSES:	UNITS
ENGL 150 Classical Mythology	3
RELIG 100 Introduction to Religious Studies	3
RELIG 101 Introduction to World Religions	3
HIST 135 Religion in America	3
HIST 160 History of Western Civilization: From the Neolithic Revolution to the Renaissance	(3)
OR	
HIST 161 History of Western Civilization: From the Renaissance to the Cold War	(3)
PHIL 101 Introduction to Philosophy	3
PHIL 103 Introduction to Logic: Argument and Evidence	3
<b>TOTAL UNITS</b>	<b>21</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

## 100 INTRODUCTION TO RELIGIOUS STUDIES 3 UNITS

UC, CSU, Associate Degree Applicable

Prerequisite: None

Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, eligibility for ENGL 101

Lecture: Minimum 48 hours per semester

A study of the major components that all religions have in common. It explores such elements as the holy, sacred stories, ritual, faith, iconography, religious leaders, scripture, morality and ethics, individual and community in religious tradition, the arts and media, and phenomenology. An interdisciplinary approach to religion, utilizing a diversity of methodologies to integrate historical research and practical application.

## 101 INTRODUCTION TO WORLD RELIGIONS 3 UNITS

UC, CSU, Associate Degree Applicable

Prerequisite: None

Departmental Recommendations: Reading: Pass a Nelson-Denny or comparable test at or above the 12th grade level, ENGL 101

Lecture: Minimum 48 hours per semester

Origins, myths, doctrines, practices, historical development and contemporary concerns of the major world religions, with particular attention to Hindu, Taoist, Confucian, Judaic, Christian and Islamic traditions.

## 110 PRIMITIVE RELIGIONS 3 UNITS

UC, CSU, Associate Degree Applicable

Prerequisite: None

Departmental Recommendation: Eligibility for ENGL 101

Lecture: Minimum 48 hours per semester

Comparative study of supernaturalism in traditional societies, both past and present, including witchcraft, magic, totemism, mythology and ritual nativistic movements, and the religious context of drug usage. Prehistoric religion will be examined, as well as the belief systems of selected tribal peoples. This course is also offered as ANTHRO 110.

## 135 RELIGION IN AMERICA 3 UNITS

UC, CSU, Associate Degree Applicable

Prerequisite: None

Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101

Lecture: Minimum 48 hours per semester

Study of the principal groups, figures, issues, and trends in religion from colonial times to the present, covering such topics as the Puritans, the growth of religious liberty in America, religion and social protest, the African-American religious experience, Catholic-Protestant-Jew, and contemporary religious phenomena. This course is also offered as HIST 135.

**175 LITERATURE AND RELIGION OF THE BIBLE** **3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Study of the English Bible as literature and as religion. Includes the examination of the types of literature found in the Bible, and the historical and religious context in which the literature was developed. Provides an extensive reading of the two testaments. This course is also offered as ENGL 175.

**176 JESUS AND HIS INTERPRETERS** **3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Study of images and interpretations of Jesus with three principle divisions: Jesus and the gospels or biblical tradition; Jesus and the historians and theologians for the Jesus of history; and Jesus and the arts, that is, Jesus in art, music, film, and the literary arts (e.g., novels, poems, plays).

# RESPIRATORY CARE (RESP)

Department: Allied Health Services  
 Department Head: Kenneth Bryson, M.A.  
 Faculty: Reynaldo Bell, B.S.  
 Tony Brainard, B.A.  
 Kenneth Bryson, M.A.  
 Bradley Franklin, M.Ed.  
 Arnold Kosmatka, Ed.D.  
 Katharyn Taylor, B.S.  
 Liaison Counselor: Robert McAtee, M.A.

**ASSOCIATE OF SCIENCE DEGREE  
 RESPIRATORY CARE**

*Crafton Hills College offers programs in Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT). Admission is open to all students who have completed the prerequisite course(s). Contact the Respiratory Care Program Director for more information about application materials and registration pass.*

<b>PREREQUISITE COURSE:</b>	<b>UNITS</b>
RESP050 Introduction to Respiratory Care	2
<b>TOTAL UNITS</b>	<b>2</b>

<b>RECOMMENDED COURSES:</b>	<b>UNITS</b>
ANAT 101 Essentials of Human Anatomy and Physiology	4
MICRO 102 Introductory Microbiology	4

**CERTIFIED RESPIRATORY THERAPIST (CRT)  
 CERTIFICATE**

**Admissions:** Enrollment is limited to 40 students. Registration passes will be issued on a point system. Students completing the required RESP 050, AH 101, and ANAT 101 will have three points and first call on a registration pass. Students completing the required RESP 050 as well as ANAT 101 or AH 101 will have two points and second call on a registration pass. It is definitely to a student's advantage to have all three points.

Contact the Respiratory Care Program Director for information on application materials and registration pass at 389-3286.

**PRE-ADMISSION COURSES**

**Required prior to admission into program.**

RESP 050	Introduction to Respiratory Care	2.0
RESP 051X4	Cardiopulmonary Resuscitation: Basic Life Support Healthcare Provider	1.0
AH 101	Medical Terminology	3.0
ANAT 101	Essentials of Human Anatomy and Physiology	4.0

**REQUIRED COURSES**

*AH 101	Medical Terminology	3.00
*ANAT 101	Essentials of Human Anatomy and Physiology	4.00
*ENGL 015	Preparation for College Writing	4.00
*MATH 090	Elementary Algebra	4.00
*MICRO 102	Introductory Microbiology	4.00
RESP 050	Introduction to Respiratory Care	2.00
RESP 051X4	Cardiopulmonary Resuscitation: Basic Life Support Healthcare Provider	1.00
RESP 101	Fundamentals of Respiratory Care I	4.00
RESP 102	Fundamentals of Respiratory Care Skills I	10.50
RESP 103	Pulmonary Assessment and Pharmacology	3.00
RESP 104	Respiratory Care Clinical Application I	2.50
RESP 105	Fundamentals of Respiratory Care II	4.00
RESP 106	Fundamentals of Respiratory Care Skills II	5.25
RESP 108	Respiratory Care Clinical Application II	5.25
RESP 110X4	Clinical Medicine I	1.50
RESP 112	Care of the High Risk Neonate	4.00
	<b>TOTAL</b>	<b>62.00</b>

\*Students may substitute equivalent or advanced level courses.

**NOTES:**

- Program begins Fall Semester only.
- Students must complete the course work for the CRT Program within a five-year period in order to receive a Certificate of Completion.
- A successful passing score on the Self-Assessment Entry-Level Examination is required to receive a Certificate of Completion in the CRT Program.

- An A.S. Degree in Respiratory Care in addition to the Certificate of Completion for the CRT Program is required to take the Entry-Level Examination for a license to work.
- All courses applied to the A.S. Degree in Respiratory Care and the Certificate of Completion must be completed with a grade of "C" or higher.
- The A.S. Degree in Respiratory Care must be awarded before the awarding of the Certificate of Completion.

RESP 207	Physiologic Basis of Respiratory Disease II	5.00
RESP 208	Advanced Respiratory Care Clinical Application II	5.25
RESP 211X4	Clinical Medicine II	1.50
RESP 218	Advanced Respiratory Care Laboratory II	4.00
	<b>TOTAL</b>	<b>107.00</b>

\*Students may substitute equivalent or advanced level courses.

**REGISTERED RESPIRATORY THERAPIST (RRT) CERTIFICATE**

**Admissions:** Open to all students who have completed the CRT Program with a "C" or higher. Students who possess a valid California Respiratory Care Practitioner License or who have been accepted into another RRT Program may petition Respiratory Care faculty for admission to the program.

Contact the Respiratory Care Program Director for information on application materials at 389-3286.

Completion of all CRT and RRT required courses with a "C" or higher, a successful passing score on both the Registry Written and the Clinical Simulation Self-Assessment Examinations, CHEM 101 with a grade "C" or higher, and completion of the Associate of Science Degree with a major in Respiratory Care qualify the student for the Registered Respiratory Therapist Certificate.

**REQUIRED COURSES**

*AH 101	Medical Terminology	3.0
*ANAT 101	Essentials of Human Anatomy	4.0
*CHEM 101	Introduction to Chemistry	4.0
*ENGL 015	Preparation for College Writing	4.0
*MATH 090	Elementary Algebra	4.0
*MICRO 102	Introductory Microbiology	4.0
RESP 050	Introduction to Respiratory Care	2.0
RESP 051X4	Cardiopulmonary Resuscitation: Basic Life Support Healthcare Provider	1.0
RESP 101	Fundamentals of Respiratory Care I	4.0
RESP 102	Fundamentals of Respiratory Care Skills I	10.5
RESP 103	Pulmonary Assessment and Pharmacology	3.0
RESP 104	Respiratory Care Clinical Application I	2.5
RESP 105	Fundamentals of Respiratory Care II	4.0
RESP 106	Fundamentals of Respiratory Care Skills II	5.25
RESP 108	Respiratory Care Clinical Application II	5.25
RESP 110X4	Clinical Medicine I	1.50
RESP 112	Care of the High Risk Neonate	4.00
RESP 201	Advanced Theory of Respiratory Care I	4.00
RESP 202	Advanced Respiratory Care Skills Lab I	4.00
RESP 203	Physiologic Basis of Respiratory Disease I	5.00
RESP 204	Advanced Respiratory Care Clinical Application I	5.25
RESP 205	Introduction to Pharmacology and Drug Therapy	3.00
RESP 206	Advanced Theory of Respiratory Care II	4.00

**NOTES:**

- Program begins Fall Semester only.
- All courses in Respiratory Care must be completed within a five-year period.
- A successful passing score on both the Registry Written and the Clinical Simulation Self-Assessment Examinations are required to receive a two-year Certificate of Completion from the RRT Program.
- CHEM 101 is also required for the certificate of completion.
- All courses applied to the A.S. Degree in Respiratory Care and the Registered Respiratory Therapy Certificate must be completed with a grade of "C" or higher.
- The A.S. Degree in Respiratory Care must be awarded before the awarding of the Registered Respiratory Therapy Certificate of Completion.

**050 INTRODUCTION TO RESPIRATORY CARE 2 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

Introduction and orientation to the field of Respiratory Care, the professional organizations, the regulatory bodies, and the policies that govern respiratory treatment. Also provides the pre-entry student with program information critical to the decision to enter the Respiratory Care Program.

**051X4 CARDIOPULMONARY RESUSCITATION: BASIC LIFE SUPPORT HEALTHCARE PROVIDER 1 UNIT**

*Associate Degree Applicable*

*Lecture: Minimum 8 hours per semester*

*Laboratory: Minimum 24 hours per semester*

Basic life support is that particular phase of emergency cardiac care that either: (a) Prevents circulatory or respiratory arrest (or insufficiency) through prompt recognition and intervention, early entry into the Emergency Medical Services system, or both, or (b) Externally supports the circulation and respiration of a victim of cardiac or respiratory arrest through cardiopulmonary resuscitation. A Basic Life Support Healthcare Provider is one who has successfully completed the written examination and all performance (skills) testing of an American Heart Association Basic Life Support Healthcare Provider Course according to American Heart Association requirements. Course completion is valid for a maximum of two years. This course may be taken four times.

**101 FUNDAMENTALS OF RESPIRATORY CARE I  
4 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Respiratory Care Program and completion of RESP 051X4 with a grade of "C" or higher*  
*Corequisites: RESP 102, RESP 103, RESP 104*

*Departmental Recommendations: ANAT 101 and MICRO 102*  
*Lecture: Minimum 64 hours per semester*

Theoretical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Provides basic preparation of the respiratory care student consisting of: an introduction to basic respiratory physiology, pharmacology, arterial blood gas interpretation, infection control, and basis for treatment modalities, including physical principles relating to medical gases and equipment.

**102 FUNDAMENTALS OF RESPIRATORY CARE SKILLS I  
10.5 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Respiratory Care Program and completion of RESP 051X4 with a grade of "C" or higher*  
*Corequisites: RESP 102, RESP 103, RESP 104*

*Lecture: Minimum 128 hours per semester*  
*Laboratory: Minimum 128 hours per semester*

Laboratory application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Provides an opportunity to learn and practice the required basic respiratory care clinical skills in a simulated patient-care environment including: medical gas handling, analysis, and delivery; patient assessment techniques; aerosol and humidification application; hyperinflation application; airway management techniques; pulmonary function; blood gas analysis; diagnostic tests interpretation; and therapeutic assessment.

**103 PULMONARY ASSESSMENT AND PHARMACOLOGY  
3 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Respiratory Care Program and completion of RESP 051X4 with a grade of "C" or higher*  
*Corequisites: RESP 101, RESP 102, RESP 104*

*Lecture: Minimum 48 hours per semester*

Preparation for the patient encounter through the understanding of basic interviewing and assessing techniques essential to the safe and effective practice of respiratory care. This course offers an introduction to basic medical terminology, followed by an intense study of terms specific to pulmonary medicine. Basic interview techniques and physical assessment of the patient are built upon this foundation.

**104 RESPIRATORY CARE CLINICAL APPLICATION I  
2.5 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Respiratory Care Program and completion of RESP 051X4 with a grade of "C" or higher*  
*Corequisites: RESP 101, RESP 102, RESP 103*

*Lecture: Minimum 18 hours per semester*  
*Clinic: Minimum 126 hours per semester*

Clinical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Follows the First-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings.

**105 FUNDAMENTALS OF RESPIRATORY CARE II  
4 UNITS**

*Associate Degree Applicable*

*Prerequisites: RESP 101, 102, 103, and 104 with a grade of "C" or higher*

*Corequisites: RESP 106, RESP 108 and RESP 110X4*  
*Lecture: Minimum 64 hours per semester*

Theoretical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Provides basic preparation of the respiratory care student that includes: introduction to cardiopulmonary dysfunction, pulmonary function testing, respiratory failure, ventilatory support and management, home care, and assessment and therapeutic treatment of the patient.

**106 FUNDAMENTALS OF RESPIRATORY CARE SKILLS II  
5.25 UNITS**

*Associate Degree Applicable*

*Prerequisites: RESP 101, RESP 102, RESP 103, and RESP 104 with a grade of "C" or higher*

*Corequisites: RESP 105, RESP 108, RESP 110X4*  
*Lecture: Minimum 64 hours per semester*  
*Clinic: Minimum 64 hours per semester*

Laboratory application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Provides an opportunity to learn and practice the required basic respiratory care clinical skills in a simulated patient-care environment, including: recommending therapeutics, recommending therapeutic modification or discontinuance, arterial blood gas drawing and analysis, oximetry, co-oximetry, mechanical ventilation and related adjuncts, pulmonary function testing, positive end-expiratory pressure, continuous positive airway pressure, bi-level positive airway pressure, and electrocardiograms.

**108 RESPIRATORY CARE CLINICAL APPLICATION II**  
**5.25 UNITS***Associate Degree Applicable**Prerequisites: RESP 101, RESP 102, RESP 103, and RESP 104 with a grade of "C" or higher**Corequisites: RESP 105, RESP 106, RESP 110X4**Lecture: Minimum 34 hours per semester**Clinic: Minimum 238 hours per semester*

Clinical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Continues to follow the First-Year Clinical Syllabus, providing instruction under direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings. Student must demonstrate the ability to carry a full workload (16 units) in a critical care area for three assigned days.

**109AX2 CLINICAL REFRESHER: CLINICAL APPLICATION I**  
**1.75 UNITS***Associate Degree Applicable**Prerequisite: RESP 104 with a grade of "C" or higher**Lecture: Minimum 13 hours per semester**Clinic: Minimum 91 hours per semester*

Continued clinical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Follows the First-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings. Offered for Credit or No Credit only. This course may be taken two times.

**109BX2 CLINICAL REFRESHER: CLINICAL APPLICATION II**  
**2.5 UNITS***Associate Degree Applicable**Prerequisite: RESP 108 with a grade of "C" or higher**Lecture: Minimum 18 hours per semester**Clinic: Minimum 126 hours per semester*

Continued clinical application of diagnostic techniques, equipment, medications, and procedures based on the national *Clinical Practice Guidelines* as well as local standards of practice. Continues to follow the First-Year Clinical Syllabus, providing instruction under direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings. Student must demonstrate the ability to carry a full workload (16 units) in a critical care area for three assigned days. Offered for Credit or No Credit only. This course may be taken two times.

**110X4 CLINICAL MEDICINE I**  
**1.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 24 hours per semester*

Selected topics related to the practice of cardiopulmonary medicine. Combination of lecture and case presentations provided by physicians who help define the clinical practice of pulmonary medicine. It is highly recommended that a student, upon entering this class, (1) be a Licensed Respiratory Care Practitioner in the State of California OR (2) be concurrently enrolled in Crafton Hills College's Certified Respiratory Therapist Program. This course may be taken four times.

**112 CARE OF THE HIGH RISK NEONATE**  
**4 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 64 hours per semester*

Preparation of the student for clinical practice in Neonatal and Pediatric Intensive Care Units: A special focus of this class is understanding the extent to which the immature cardiopulmonary system can be augmented by the application of diagnostic techniques, equipment, and procedures. (Formerly RESP 212)

**201 ADVANCED THEORY OF RESPIRATORY CARE I**  
**4 UNITS***Associate Degree Applicable**Prerequisites: RESP 051X4 (only if Basic Life Support (BLS) Healthcare Provider card has expired), RESP 101,**RESP 102, RESP 103, RESP 104, RESP 105, RESP 106,**RESP 108, RESP 110X4, and RESP 112 with a grade of**"C" or higher**Corequisites: RESP 202, RESP 203, RESP 204, RESP 205**Lecture: Minimum 64 hours per semester*

The course covers advanced assessment, diagnosis, and treatment of diseases and conditions as they relate to the practice of respiratory care. Topics include: cardiopulmonary anatomy, continuous mechanical ventilation, patient assessment, oxygen transport, oxygen monitoring equipment, hyperbaric oxygen therapy, and interpersonal relationships regarding Respiratory Care Practitioner diversity, and ethics.

**202 ADVANCED RESPIRATORY CARE SKILLS LAB I**  
**4 UNITS***Associate Degree Applicable**Prerequisites: RESP 101, RESP 102, RESP 103, RESP 104,**RESP 105, RESP 106, RESP 108, RESP 110X4, and**RESP 112 with a grade of "C" or higher**Corequisites: RESP 201, RESP 203, RESP 204, RESP 205**Lecture: Minimum 32 hours per semester**Laboratory: Minimum 96 hours per semester*

Advanced assessment, diagnosis, and treatment of diseases and conditions as they relate to the practice of respiratory care in the simulated patient-care environment. Topics and skills include: advanced medical gas handling, analysis, and delivery; patient assessment techniques; aerosol and humidification application; hyperinflation techniques; airway management techniques; pulmonary function techniques; arterial puncture and lines; neonatal cardiopulmonary resuscitation; mechanical ventilation (adult and infant); and the electrocardiogram.

**203 PHYSIOLOGIC BASIS OF RESPIRATORY DISEASE I**  
**5 UNITS***Associate Degree Applicable**Prerequisites: RESP 101, RESP 102, RESP 103, RESP 104,**RESP 105, RESP 106, RESP 108, RESP 110X4, and**RESP 112 with a grade of "C" or higher**Corequisites: RESP 201, RESP 202, RESP 204, RESP 205**Lecture: Minimum 80 hours per semester*

Applied cardiopulmonary, renal, and neuropathophysiology related to the diagnosis and treatment of diseases the therapist will encounter in the clinical setting. The case history approach is used wherever possible in an effort to assist in preparation for National Board for Respiratory Care, Inc. examinations.

**204 ADVANCED RESPIRATORY CARE CLINICAL APPLICATION I 5.25 UNITS***Associate Degree Applicable**Prerequisites: RESP 101, RESP 102, RESP 103, RESP 104, RESP 105, RESP 106, RESP 108, RESP 110X4, and RESP 112 with a grade of "C" or higher**Corequisites: RESP 201, RESP 202, RESP 203, RESP 205**Lecture: Minimum 36 hours per semester**Clinic: Minimum 252 hours per semester*

Clinical application of advanced-level skills learned in the laboratory and theory classes. Follows the Second-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings and to reflect the *Clinical Practice Guidelines* as well as the local standards of practice. Student must demonstrate the ability to carry a full workload (18 units) in a critical care area for three assigned days.

**205 INTRODUCTION TO PHARMACOLOGY AND DRUG THERAPY 3 UNITS***Associate Degree Applicable**Prerequisites: RESP 101, RESP 102, RESP 103, RESP 104, RESP 105, RESP 106, RESP 108, RESP 110X4, and RESP 112 with a grade of "C" or higher**Corequisites: RESP 201, RESP 202, RESP 203, RESP 204**Lecture: Minimum 48 hours per semester*

Study of the administration of medicine and drug therapy with an emphasis on cardio-respiratory drugs. Drugs and their actions and interactions. Basic drug mathematics and calculations as well as Advanced Cardiac Life Support drugs.

**206 ADVANCED THEORY RESPIRATORY CARE II 4 UNITS***Associate Degree Applicable**Prerequisites: RESP 201, RESP 202, RESP 203, RESP 204, and RESP 205 with a grade of "C" or higher**Corequisites: RESP 207, RESP 208, RESP 211X4, RESP 218**Lecture: Minimum 64 hours per semester*

Advanced theory, including oxygen transport, acid-base balance, renal function, electrolyte assessment, nutrition, pulmonary function testing, and pulmonary pathologies.

**207 PHYSIOLOGIC BASIS OF RESPIRATORY DISEASE II 5 UNITS***Associate Degree Applicable**Prerequisites: RESP 201, RESP 202, RESP 203, RESP 204, and RESP 205 with a grade of "C" or higher**Corequisites: RESP 206, RESP 208, RESP 211X4, RESP 218**Lecture: Minimum 80 hours per semester*

Further presentation of applied cardiopulmonary, renal, and neuro-pathophysiology related to the diagnosis and treatment of diseases the therapist will encounter in the clinical setting. The case history approach is used wherever possible in an effort to assist in preparation for National Board for Respiratory Care, Inc. examinations.

**208 ADVANCED RESPIRATORY CARE CLINICAL APPLICATION II 5.25 UNITS***Associate Degree Applicable**Prerequisites: RESP 201, RESP 202, RESP 203, RESP 204, and RESP 205 with a grade of "C" or higher**Corequisites: RESP 206, RESP 207, RESP 211X4, RESP 218**Lecture: Minimum 36 hours per semester**Clinic: Minimum 252 hours per semester*

Continued clinical application of advanced-level skills learned in the laboratory and theory classes. Follows the Second-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings and to reflect the *Clinical Practice Guidelines* as well as the local standards of practice. Student must demonstrate the ability to carry a full workload (18 units) in a critical care area for three assigned days.

**209AX2 CLINICAL REFRESHER: ADVANCED CLINICAL APPLICATION I 2.5 UNITS***Associate Degree Applicable**Prerequisite: RESP 204 with a grade of "C" or higher**Lecture: Minimum 18 hours per semester**Clinic: Minimum 126 hours per semester*

Continued clinical application of advanced-level skills learned in the laboratory and theory classes. Follows the Second-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings and to reflect the *Clinical Practice Guidelines* as well as the local standards of practice. Offered for Credit or No Credit only. This course may be taken two times.

**209BX2 CLINICAL REFRESHER: ADVANCED CLINICAL APPLICATION II 2.5 UNITS***Associate Degree Applicable**Prerequisite: RESP 208 with a grade of "C" or higher**Lecture: Minimum 18 hours per semester**Clinic: Minimum 126 hours per semester*

Continued clinical application of advanced-level skills learned in the laboratory and theory classes. Follows the Second-Year Clinical Syllabus, under continuous direct supervision, to validate competence in the skills required to care for patients in a variety of healthcare settings and to reflect the *Clinical Practice Guidelines* as well as the local standards of practice. Offered for Credit or No Credit only. This course may be taken two times.

**211X4 CLINICAL MEDICINE II 1.5 UNITS***Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 24 hours per semester*

Continued study of clinical pulmonary medicine, using local physicians to present respiratory-related disease processes. This course uses a combination of lecture and case presentation to provide a pathophysiologic basis for respiratory care. It is highly recommended that a student, upon entering this class, (1) be a Licensed Respiratory Care Practitioner in the State of California or (2) be concurrently enrolled in Crafton Hills College's Registered Respiratory Therapist Program. This course may be taken four times.

**218 ADVANCED RESPIRATORY CARE LABORATORY II**  
**4 UNITS***Associate Degree Applicable**Prerequisites: RESP 201, RESP 202, RESP 203, RESP 204, and RESP 205 with a grade of "C" or higher**Corequisites: RESP 206, RESP 207, RESP 208, and RESP 211X4**Lecture: Minimum 32 hours per semester**Laboratory: Minimum 96 hours per semester*

Exposure to new procedures and the improvement of skills based on assessment of individual student performance. Specialized instruction to strengthen identified competencies as final preparation for professional practice, as well as Certification in Advanced Cardiac Life Support.

**925X4 ENTRY LEVEL EXAMINATION: REVIEW AND SEMINAR**  
**1.75 UNITS***Not Applicable to the Associate Degree**Prerequisite: Completion of a Certified Respiratory Therapist Program approved by the Committee on Accreditation for Respiratory Care (CoARC).**Lecture: Minimum 30 hours per semester*

Preparation and review for the National Board for Respiratory Care (NBRC) Entry Level Examination; discussion of examination structure, content, and site requirements, and review of sample NBRC test questions for remediation. Self-evaluation practice examinations will be key features. (If a first-year candidate for the Certificate of Completion in the Certified Respiratory Therapist Program does not successfully complete the mandatory end-of-the-year secured self-assessment examination, successful completion of this course will be required to secure the Certificate). Offered for Credit or No Credit only. This course may be taken four times.

**927X4 ADVANCED PRACTITIONER EXAMINATIONS: REVIEW AND SEMINAR**  
**3 UNITS***Not Applicable to the Associate Degree**Prerequisite: None**Lecture: Minimum 36 hours per semester**Laboratory: Minimum 36 hours per semester*

Preparation for the National Board for Respiratory Care, Inc. Advanced Level Written Registry and Clinical Simulation Examination; discussion of examination structure, content, examination site requirements, and review of sample test questions, self-evaluation practice examinations are featured. Offered for Credit or No Credit only. This course may be taken four times.

# ROTOCRAFT-HELICOPTER PILOT TRAINING (ROTO)

Department: Emergency Services  
Department Head: James Holbrook, Ed.D.

**100 FUNDAMENTAL THEORIES OF HELICOPTER FLIGHT**  
**3 UNITS***Associate Degree Applicable**Prerequisite: None**Departmental Recommendations: Concurrently enrolled in ROTO 101, Reading skills recommended: 12th grade reading level**Lecture: Minimum 48 hours per semester*

Introduction to helicopter flights theory and is a Federal Aviation Administration prerequisite for helicopter pilot certificate. Covers principles of flight, helicopter systems and instruments, flight environment, communications and performance, meteorology for pilots, basic navigation, aviation physiology, and flight planning decision making.

**101 HELICOPTER PRIVATE PILOT FLIGHT TRAINING**  
**2 UNITS***Associate Degree Applicable**Prerequisite: Acceptance into the Helicopter Pilot Training Program**Departmental Recommendations: Concurrently enrolled in ROTO 100, Reading skills recommended: 12th grade reading level**Lecture: Minimum 20 hours per semester**Laboratory: Minimum 40 hours per semester*

Introduction to helicopter flight and flight environment. Provides the aeronautical skills and experience necessary to safely operate a piston engine helicopter. Federal Aviation Administration (FAA) prerequisite for helicopter pilot certificate.

**200 ADVANCED THEORIES OF HELICOPTER FLIGHT**  
**3 UNITS***Associate Degree Applicable**Prerequisite: Must hold a Private Helicopter License issued by the Federal Aviation Administration**Departmental Recommendation: Concurrently enrolled in ROTO 201**Lecture: Minimum 48 hours per semester*

Advanced course on helicopter flight theory and Federal Aviation Administration (FAA) prerequisite for helicopter commercial pilot certificate. Will reinforce and expand on concepts learned during private pilot certification. The focus will be on additional instruction in advanced navigation equipment, procedures and maneuvers applicable to commercial pilot certification, specifically 180 auto-rotation, confined area operations, pinnacle/platform operations, as well as float operations.

**201 HELICOPTER COMMERCIAL PILOT FLIGHT TRAINING 2 - 4 UNITS**

*Associate Degree Applicable*

*Prerequisites: Must hold a Private Helicopter License, Must hold a valid FAA Medical Certificate (2<sup>nd</sup> or 3<sup>rd</sup> Class)*  
*Departmental Recommendation: Concurrently enrolled in ROTO 200*

*Lecture: Minimum 20 hours per semester*

*Laboratory: Minimum 30-115 hours per semester*

Builds upon the fundamentals of helicopter flight and flight environment taught in ROTO 100, 101 and 200. Provides the aeronautical skills and experience necessary for professional helicopter operations. Federal Aviation Administration (FAA) prerequisite for commercial pilot certificate.

# SOCIOLOGY (SOC)

Department: Social Sciences  
 Department Head: Mario Perez, M.A.

**ASSOCIATE OF ARTS DEGREE SOCIOLOGY**

REQUIRED COURSES:		UNITS
SOC 100	Introduction to Sociology	3
SOC 105	Social Problems	3
SOC 141	Minority Relations	3

*Select two courses from the following:*

ANTHRO 102	Cultural Anthropology	(3)
MATH 108	Statistics	(4)
PHIL 103	Introduction to Logic: Argument and Evidence	(3)
PSYCH 100	General Psychology	(3)

*Select one additional course from the courses above or the following:*

SOC 130	Marriage, Family and Intimate Relationships	(3)
SOC 150	Gerontology	(3)
PSYCH 116	Psychology of Sex Roles	(3)
<b>TOTAL UNITS</b>		<b>18-19</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 INTRODUCTION TO SOCIOLOGY 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a Nelson-Denny or comparable test at or above the 30th percentile (12th grade level), MATH 952, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Survey of the concepts and theories of society and culture, social organization, social stratification, everyday life, social change, and social policy; the study of the structure and function, and the patterns and processes, of human social life. (CAN SOC 2)

**105 SOCIAL PROBLEMS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a Nelson-Denny or comparable test at or above the 30th percentile (12th grade level), MATH 952, ENGL 101*

*Lecture: Minimum 48 hours per semester*

Sociological study of significant structural problems in the contemporary United States such as poverty, family issues, minority relations, criminality, substance abuse, health care, sexual orientation, environmental degradation, warfare, their interrelationships, and global implications.

**130 MARRIAGE, FAMILY AND INTIMATE RELATIONSHIPS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a Nelson-Denny or comparable test at or above the 30th percentile (12th grade level), ENGL 101*

*Lecture: Minimum 48 hours per semester*

Analytical and functional study of the structure and process of the institution of the family, with special emphasis on contemporary marriages and families, as well as alternative forms of intimate relationships, in the United States.

**141 MINORITY RELATIONS 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendations: Reading: Pass a Nelson-Denny or comparable test at or above the 30th percentile (12th grade level), ENGL 101*

*Lecture: Minimum 48 hours per semester*

Sociological study of multiculturalism and diversity in the United States, social stratification, ethnic and other minorities, intergroup relations, and their global dimensions.

**150 GERONTOLOGY 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisites: None*

*Departmental Recommendations: Reading: Pass a standardized test of reading comprehension at or above the 12th grade level, ENGL 101, MATH 095, PSYCH 100*

*Lecture: Minimum 48 hours per semester*

Physical, emotional, cognitive, social, and economic perspectives on aging, including a review of how roles change with age, and the opportunities available to people over age 55. Recommended for students seeking careers in human services. This course is also offered as PSYCH 150.

# SPANISH (SPAN)

Department: Language Arts  
 Department Head: Mark Snowwhite, M.A.  
 Faculty: Marina Kozanova, M.A.

## ASSOCIATE OF ARTS DEGREE SPANISH

REQUIRED COURSES:	UNITS
SPAN 101 College Spanish I	5
SPAN 102 College Spanish II	5
SPAN 103 College Spanish III	4
SPAN 104 College Spanish IV	4
ENGL 101 Freshman Composition	4
ENGL 102 Intermediate Composition and Critical Thinking	(4)
OR	
ENGL 152 Intermediate Composition and Literature	(4)
<b>TOTAL UNITS</b>	<b>26</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

### 015 CONVERSATIONAL SPANISH I 3 UNITS

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

The first semester of Conversational Spanish. Some formal grammar study. Designed to suit the needs of persons who wish to learn to communicate orally in the Spanish language for purposes of travel, business, personal pleasure, etc.

### 016 CONVERSATIONAL SPANISH II 3 UNITS

*Associate Degree Applicable*

*Prerequisite: SPAN 015*

*Lecture: Minimum 48 hours per semester*

The second semester of Conversational Spanish. Some formal grammar study. Designed to suit the needs of persons who wish to learn to communicate orally in the Spanish language for purposes of travel, business, personal pleasure, etc.

### 101 COLLEGE SPANISH I 5 UNITS

*UC\*, CSU\*, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 16 hours per semester*

An introductory course which begins the development of the student's listening, speaking, reading and writing skills in Spanish. The course also involves the study of Spanish pronunciation, vocabulary, idioms, grammar and the Hispanic culture. (This course corresponds to the first year of high school Spanish.)

### 102 COLLEGE SPANISH II 5 UNITS

*UC\*, CSU\*, Associate Degree Applicable*

*Prerequisite: SPAN 101*

*Lecture: Minimum 80 hours per semester*

*Laboratory: Minimum 16 hours per semester*

A continuation of SPAN 101 and a continued development of the student's listening, speaking, reading and writing skills in Spanish. The course also continues the study of Spanish vocabulary, idioms, grammar and the Hispanic culture. (This course corresponds to the second year of high school Spanish.)

### 103 COLLEGE SPANISH III 4 UNITS

*UC\*, CSU\*, Associate Degree Applicable*

*Prerequisite: SPAN 102*

*Lecture: Minimum 64 hours per semester*

*Laboratory: Minimum 16 hours per semester*

A continuation of SPAN 102 and the further development of the student's listening, speaking, reading and writing skills in Spanish. The course includes a further study of Spanish vocabulary, idioms, more complex grammatical structures and the Hispanic culture, as it is reflected in cultural and literary readings.

### 104 COLLEGE SPANISH IV 4 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: SPAN 103*

*Lecture: Minimum 64 hours per semester*

*Laboratory: Minimum 16 hours per semester*

A continuation of SPAN 103 and an in depth study of Spanish grammar and the continued development of the student's listening, speaking, reading and writing skills. The course also involves an enhancement of the student's cultural awareness through reading, discussion and written analysis of Hispanic cultural and literary readings.

# SPEECH (SPEECH)

Department: Language Arts  
 Department Head: Mark Snowwhite, M.A.  
 Faculty: Richard Hogrefe, M.A.

## ASSOCIATE OF ARTS DEGREE SPEECH

REQUIRED COURSES:	UNITS
SPEECH 100 Elements of Public Speaking	3
SPEECH 111 Interpersonal Communication	3
SPEECH 140 Small Group Communication	3
<i>Select nine related units from the following:</i>	
SPEECH 101 Advanced Public Speaking	(3)
SPEECH 120 Oral Interpretation of Literature	(3)
SPEECH 121 Advanced Interpretation and Readers Theatre	(3)
SPEECH 125 Critical Thinking Through Argumentation and Debate	(3)
SPEECH 174 Communication in a Diverse World	(3)
SPEECH 246, 247 248 Special Studies in Communication	(1-3)
ENGL 155 Children's Literature	(3)
ENGL 170 The Film Experience	(3)
INTDIS 180 Community Service and Leadership I	(2-3)
INTDIS 181 Community Service and Leadership II	(2-3)
MARKET 110 Advertising	(3)
PSYCH 132 Counseling and Interviewing Techniques	(3)
SOC 130 Marriage, Family and Intimate Relationships	(3)
THART 120 Acting Fundamentals	(3)
<b>TOTAL UNITS</b>	<b>18</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

## 050 FUNDAMENTALS OF ORAL COMMUNICATION 3 UNITS

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the basic skills necessary for communicating in our world. Focuses on the most essential parts of the communication process including language, nonverbal communication, voice and articulation and listening in interpersonal, small group and public situations. Addresses the specific needs of non-native speakers of English, non-transfer students and students needing additional preparation before taking SPEECH 100.

## 100 ELEMENTS OF PUBLIC SPEAKING 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: ENGL 101*

*Lecture: Minimum 48 hours per semester*

Introductory study and training in public communication. Instruction in preparing relevant, well researched, organized and audience-centered speeches. Methods of and practice in delivery techniques which will assist in developing confidence and result in effective informative and persuasive presentations.

## 101 ADVANCED PUBLIC SPEAKING 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: SPEECH 100*

*Lecture: Minimum 48 hours per semester*

Development of critical thinking and listening skills through advanced public speaking in specific communication environments. Understanding of rhetorical traditions and technological advances as a means of crafting communication messages, emphasizing audience analysis, language use and delivery.

## 111 INTERPERSONAL COMMUNICATION 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Examination of the dynamics of the communication process within the context of interpersonal relationships. Principles of effective listening and accurate expression of verbal and nonverbal messages. Development of skills including assertiveness, conflict management, self disclosure and emotional expression to improve personal and professional interactions with others.

## 120 ORAL INTERPRETATION OF LITERATURE 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: SPEECH 100*

*Lecture: Minimum 48 hours per semester*

Basic principles of oral communication are explored through analysis and interpretative performance of prose, poetry and dramatic literature. Introduction to and practice in the art of reading aloud for effective use of voice and movement according to the style, mood, meaning and emotion of literature. Improvement of minor vocal problems.

## 121 ADVANCED INTERPRETATION AND READERS THEATRE 3 UNITS

*UC, CSU, Associate Degree Applicable*

*Prerequisite: SPEECH 120*

*Lecture: Minimum 48 hours per semester*

History, theory, and practice of the art of oral interpretative reading. Preparation and presentation of four lecture-recital programs.

**125 CRITICAL THINKING THROUGH ARGUMENTATION AND DEBATE 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: ENGL 101 or SPEECH 100*

*Lecture: Minimum 48 hours per semester*

Study of critical thinking through oral advocacy and debate. Principles of effective argumentation including logic, reasoning, evidence, motivation, persuasion and refutation. Preparation and presentation of written and oral arguments and participation in individual and group debates. Substantial analytical reading is required.

**140 SMALL GROUP COMMUNICATION 3 UNITS**

*UC, CSU, Associate Degree Applicable*

*Prerequisite: None*

*Departmental Recommendation: Eligibility for ENGL 101*

*Lecture: Minimum 48 hours per semester*

Introductory principles and techniques of small group interaction including participation in panel discussions, symposiums and cooperative problem solving. Development of skills in agenda setting, decision-making, group leadership, conflict management and individual speaking. Emphasis on critical thinking and meaningful communication as they apply to work in business and the community.

**174 COMMUNICATION IN A DIVERSE WORLD 3 UNITS**

*CSU, Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Study of the multicultural nature of communication in our diverse world. Examines how interactions are influenced by culture, including race and ethnicity, gender and sexual orientation, age, religious faith and disability. Exploration of personal cultural identity, theories of intercultural communication, sources of cultural conflict, and development of skills for effective intercultural communication.

**SPECIAL STUDIES IN COMMUNICATION**

- 246AB 1 UNIT**
- 247AB 2 UNITS**
- 248ABC 3 UNITS**

*UC\*, CSU, Associate Degree Applicable*

*Prerequisite or Corequisite: Any speech course*

*Laboratory: Minimum 48 hours per semester*

Independent projects for students with a special interest in speech, involving assigned readings, research, conferences, and public speaking. Projects to be determined jointly by the student and instructor prior to registration.

**917X2 LABORATORY FOR ORAL INTERPRETATION 0 UNIT**

*Not Applicable to the Associate Degree*

*Prerequisite: None*

*Corequisite: SPEECH 120 or SPEECH 121*

*Laboratory: Variable hours*

Optional laboratory to supplement coursework in oral interpretation. Activities include appreciation, evaluation and participation in various forms of interpretive performance. This course may be taken two times.

**SPEECH-LANGUAGE PATHOLOGY ASSISTANT**

**(SLPA)**

Department: Allied Health Services  
 Department Head: Kenneth Bryson, M.A.  
 Liaison Counselor: Judi Harrington, M.A.

**ASSOCIATE OF SCIENCE DEGREE  
 SPEECH-LANGUAGE PATHOLOGY ASSISTANT**

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
SLPA 119	Introduction to Speech Pathology and Audiology	3
SLPA 120	Transcription Phonetics	2
SLPA 121	Observation Laboratory	1
SLPA 122	Assessment and Intervention of Communication Disorders in Children	3
SLPA 123	Assessment and Intervention of Communication Disorders in Adults	3
SLPA 124	Workplace Issue, Ethics and Practices	3
SLPA 125	Assistive Technology	1
SLPA 126	Bilingual and Bicultural Issues in Communication	1
SLPA 127	Practicum Laboratory	3
ASL 101	American Sign Language I	4
CD 105	Child Growth and Development	3
CD 134	Language and Listening, Literacy and Literature Experiences for Children	3
<b>TOTAL UNITS</b>		<b>30</b>

<b>REQUIRED GENERAL ED COURSES:</b>		<b>UNITS</b>
ENGL 101	Freshman Composition	4
ANAT 101	Essentials of Human Anatomy and Physiology	4
HEALTH 102	Biological Principles of Health OR	(3)
HEALTH 263/PE 263	Nutrition and Health OR	(3)
2 units of PE/I activities courses		(2)
<b>AND</b>		
ENGL 152	Intermediate Composition and Literature	4
ENGL 155	Children's Literature OR	(3)
3 units of humanities courses		(3)

<b>AND</b>		
PSYCH 100	General Psychology	3
POLIT 100	American Politics	(3)
	OR	
HIST 100	History of the United States to 1877	(3)
	OR	
HIST 101	History of the United States 1865 to the Present	(3)
<b>CHOOSE 1 OF THE FOLLOWING:</b>		
PSYCH 102	Personal and Social Adjustment	(3)
	OR	
PSYCH 103	Psychology of Personality	(3)
	OR	
PSYCH 113	Adulthood and Old Age	(3)
	OR	
PSYCH 150	Gerontology	(3)
	OR	
SOC 100	Introduction to Sociology	(3)
<b>AND</b>		
SPEECH 100	Essentials of Public Speaking	(3)
	OR	
SPEECH 111	Interpersonal Communication	(3)
<b>AND</b>		
CIS 101	Introduction to Computers and Information Technology	(3)
	OR	
CIS 255	Introduction to Computer Technology for Educators	(3)
	<b>TOTAL UNITS</b>	<b>32-34</b>

Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.

**119 INTRODUCTION TO SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY 3 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 48 hours per semester*

Introduction to the field of communication disorders, including adult and child language disorders, adult and child speech disorders, voice, hearing and fluency disorders. Course includes development of normal speech and language from infancy through adolescence.

**120 TRANSCRIPTION PHONETICS 2 UNITS**

*Associate Degree Applicable*

*Prerequisite: None*

*Lecture: Minimum 32 hours per semester*

Development of transcription skills using the International Phonetic Alphabet (IPA).

**121 OBSERVATION LABORATORY 1 UNIT**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Speech-Language Pathology Assistant Program, CD 105 and SLPA 119*

*Corequisite: SLPA 122*

*Laboratory: Minimum 48 hours per semester*

Students are required to formally observe the speech and language therapy process in a variety of clinical and school sites. Observations will cover speech, language, and hearing assessment and intervention with a full range of disorders and settings. In addition, students will observe and perform language interaction activities with children in the Crafton Hills College Child Development Center.

**122 ASSESSMENT AND INTERVENTION OF COMMUNICATION DISORDERS IN CHILDREN 3 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Speech-Language Pathology Assistant Program and SLPA 120*

*Corequisite: SLPA 121*

*Lecture: Minimum 48 hours per semester*

Study of articulation, phonological, fluency, and voice disorders in children. Also a study of language disorders in children from infancy through adolescence. Students will learn and discuss treatment strategies for various disorders and age levels.

**123 ASSESSMENT AND INTERVENTION OF COMMUNICATION DISORDERS IN ADULTS 3 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Speech-Language Pathology Assistant Program, ANAT 101, SLPA 121 and one of the following: PSYCH 102, PSYCH 103, PSYCH 113, PSYCH 150, SOC 100*

*Corequisite: SLPA 124*

*Lecture: Minimum 48 hours per semester*

Study of basic anatomy and physiology of the head and neck. Study of motor speech disorders, voice, and swallowing disorders. This course also covers acquired language disorders including aphasia, right hemisphere disorders, and traumatic brain injury. Students will discuss and learn treatment strategies.

**124 WORKPLACE ISSUES, ETHICS, AND PRACTICES 3 UNITS**

*Associate Degree Applicable*

*Prerequisites: Acceptance into the Speech-Language Pathology Assistant Program and SLPA 122*

*Corequisite: SLPA 123*

*Lecture: Minimum 48 hours per semester*

Principles and procedures for management of individuals with communicative disorders with consideration for cultural and linguistic variations. Legal and ethical considerations as well as requirements for employment in various work settings, including interdisciplinary and supervisory relationships and scope of responsibilities.

**125 ASSISTIVE TECHNOLOGY 1 UNIT***Associate Degree Applicable**Prerequisites: Acceptance into the Speech-Language**Pathology Assistant Program, SLPA 122 and SLPA 124**Lecture: Minimum 16 hours per semester*

An introductory course which will cover the development and use of assistive technology for individuals in need of augmentative or alternative means of communication.

**126 BILINGUAL AND BICULTURAL ISSUES IN COMMUNICATION 1 UNIT***Associate Degree Applicable**Prerequisites: Acceptance into the Speech-Language**Pathology Assistant Program, SLPA 122 and SLPA 124**Lecture: Minimum 16 hours per semester*

Addresses the clinical competencies and cultural sensitivity needed in interaction with bicultural and bilingual clients/patients. Discusses the impact of such knowledge on assessment and intervention.

**127 PRACTICUM LABORATORY 3 UNITS***Associate Degree Applicable**Prerequisites: Acceptance into the Speech-Language**Pathology Assistant Program, SLPA 122 and SLPA 124**Laboratory: Minimum 144 hours per semester*

This course will help fulfill the California Speech-Language Pathology and Audiology Board requirement of a minimum of 70 hours of supervised clinical practice in at least two settings. In addition, the American Speech-Language Hearing Association (ASHA) requires a minimum of 100 hours of supervised practice.

**246 SPECIAL PROBLEMS IN SPEECH-LANGUAGE PATHOLOGY 1 UNIT***Associate Degree Applicable**Prerequisite: AH 119A**Lecture: Minimum 16 hours per semester*

The development of normal speech and language from infancy through adolescence.

# THEATRE ARTS (THART)

Department: Fine Arts  
Department Head: Marc Wurmbrand, M.F.A.

**ASSOCIATE OF ARTS DEGREE THEATRE ARTS**

REQUIRED COURSES:	UNITS
THART 100 Introduction to Theatre	3
THART 108 World Drama I	3
THART 120 Acting Fundamentals	3
THART 175 Stage Makeup	1
THART 176X4 Fundamentals of Stagecraft (must be taken four times)	4
THART 220 Advanced Acting I	3
THART 221 Advanced Acting II	3
THART 225X4 Character Analysis	3
<b>TOTAL UNITS</b>	<b>23</b>

*Lower division requirements for students interested in transferring to a four year institution in this field may differ from associate degree requirements. Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring. See a counselor for details.*

**100 INTRODUCTION TO THEATRE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to the fundamental theories of the theatre arts, providing a basic back ground and helping students develop an appreciation of theatre production, film, and television.

**108 WORLD DRAMA I 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Survey of the masterworks of the theatre, covering great dramatic literature from the classical Greek period to the neoclassical period during the first semester and from the Restoration to the present during the second semester.

**109 WORLD DRAMA II 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: THART 108**Lecture: Minimum 48 hours per semester*

Survey of the masterworks of the theatre, covering great dramatic literature from the classical Greek period to the neoclassical period during the first semester and from the Restoration to the present during the second semester.

**116X4 REPERTORY THEATRE 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: Audition**Lecture: Minimum 40 hours per semester**Laboratory: Minimum 16 hours per semester*

Program offering for the superior career-oriented student performer. This eight week summer course differs from the regularly scheduled performance laboratory program in the degree of professionalism expected and the intensity of the work required. This course may be taken four times.

**117X4 TOURING REPERTORY THEATER WORKSHOP 3 UNITS***CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: THART 116X4**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 48 hours per semester*

Practice in the concepts and procedures of the professionally produced touring show. Preparation and presentation of productions designed for touring. This course may be taken four times.

**120 ACTING FUNDAMENTALS 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 48 hours per semester*

Introduction to the Stanislavski theory of acting, with practical application in solo and ensemble scenes in the major areas of dramatic literature.

**130X4 JAZZ DANCE 1 - 2 UNITS***UC, CSU\*, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 8-16 hours per semester**Laboratory: Minimum 16-32 hours per semester*

Study of the principles of jazz and theatrical dance techniques, with emphasis on body placement, principles of kinesiology, and motor learning. This course may be taken four times. This course is also offered as PE/1 130X4.

**140X4 THEATRE WORKSHOP 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 60 hours per semester*

Practice in the interpretation of varied roles in dramatic literature, plotting of action on stage, designing of costumes and settings for plays, and the use of make-up. This course may be taken four times.

**145X4 ADVANCED THEATRE WORKSHOP 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: THART 140X4**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 48 hours per semester*

Advanced practice in the development of a professionally mounted production, the interpretation of varied roles in dramatic literature, designing of costumes and settings for plays. This course may be taken four times.

**146X4 ACTING: ADVANCED PERFORMANCE WORKSHOP 3 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Departmental Recommendation: THART 145X4**Lecture: Minimum 24 hours per semester**Laboratory: Minimum 48 hours per semester*

Supervised applied theory in acting, singing, and dancing for the stage through projects for public presentation. This course may be taken four times.

**150X4 SUMMER THEATRE WORKSHOP 2 - 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 64-128 hours per semester*

Instruction in the areas of stage production, acting, promotion, and publicity. Designed as theatrical experience for high school graduates and college freshmen. This course may be taken four times.

**174X4 DANCE PRODUCTION WORKSHOP 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Lecture: Minimum 16 hours per semester**Laboratory: Minimum 32 hours per semester*

Instruction and practice in the development of dance as an integral part of a theatrical production. This course may be taken four times.

**175 STAGE MAKE-UP 1 UNIT***UC, CSU, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 48 hours per semester*

Introduction to the theories and practice of make-up through changing the appearance of the actor to correspond to an interpretation of the character.

**176X4 FUNDAMENTALS OF STAGECRAFT 1 - 4 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 32 hours per semester*

Basic theories and practice of construction, painting, assembly, shifting and lighting of stage scenery and properties. This course may be taken four times.

**179X4 FUNDAMENTALS OF STAGECRAFT – ADVANCED PRACTICUM 2 UNITS***UC, CSU, Associate Degree Applicable**Prerequisite: None**Laboratory: Minimum 64 hours per semester*

Continuation of THART 176X4, designed to extend the student's vocational opportunities in the theatrical profession. Emphasizes special projects in the theatre (lighting, special effects, special designs), black and white photography which uses the actual theatre production as a subject exclusively. Includes camera familiarization and shooting techniques, negative and print dark-room procedures, finishing and presentation. This course may be taken four times.

**220 ADVANCED ACTING I** **3 UNITS**  
*UC, CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Lecture: Minimum 48 hours per semester*  
 Theory and practice of characterization in solo and ensemble scenes.

**221 ADVANCED ACTING II** **3 UNITS**  
*UC, CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Departmental Recommendation: THART 220*  
*Lecture: Minimum 48 hours per semester*  
 Theory and practice of characterization in solo and ensemble scenes.

**225X4 CHARACTER ANALYSIS** **3 UNITS**  
*UC, CSU, Associate Degree Applicable*  
*Prerequisite: None*  
*Departmental Recommendation: THART 140X4 or equivalent*  
*Lecture: Minimum 48 hours per semester*  
 Study of the analytical steps involved in the development of characters preparatory to rehearsals and performances, followed by evaluation of performances and post-play discussion. This course may be taken four times.

**231X4 JAZZ DANCE II** **1 - 2 UNITS**  
*UC, CSU\*, Associate Degree Applicable*  
*Prerequisite: None*  
*Departmental Recommendation: THART 130X4 or PE/I 130X4*  
*Lecture: Minimum 8-16 hours per semester*  
*Laboratory: Minimum 16-32 hours per semester*  
 Continuation of THART 130X4, with student choreography and performance added. This course may be taken four times.

**246X4 SPECIAL PROJECTS IN THEATRE ARTS** **1 UNIT**  
*UC\*, CSU, Associate Degree Applicable*  
*Prerequisite: Completion of or concurrent enrollment in a Theatre Arts course*  
*Laboratory: Minimum 48 hours per semester*  
 Laboratory projects for selected students in any area of theatre, with projects determined jointly by instructor and student. This course may be taken four times.

## WORK EXPERIENCE (WKEXP)

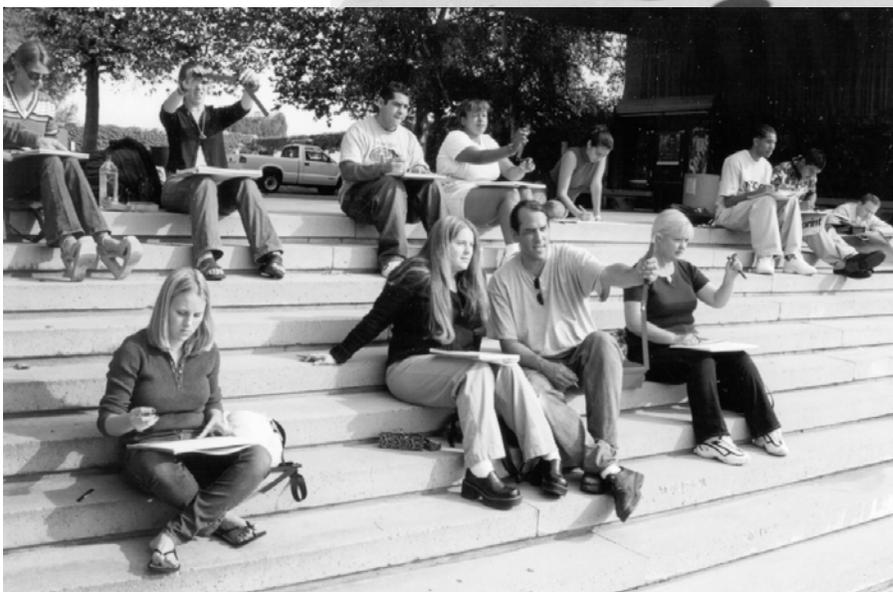
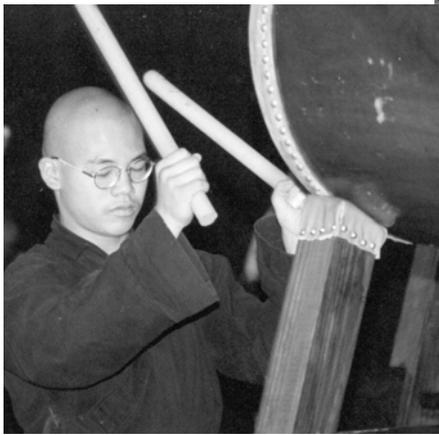
**099 GENERAL WORK EXPERIENCE** **2 - 3 UNITS**  
*Associate Degree Applicable*  
*Prerequisite: None*  
*Corequisite: Enrolled in at least 7 units, including this Work Experience course*  
*Work Experience: 150-225 Paid Employment*  
*120-180 Unpaid Employment*  
 Supervised general work experience education to assist students in acquiring desirable work habits, career awareness, and job attitudes consistent with contemporary community standards.

### OCCUPATIONAL WORK EXPERIENCE

Work experience education credit can be earned through supervised activities in each of the occupational disciplines. (Listed as 198 in each appropriate Discipline.)



# g r o w t h





# determination



## SECTION III

## Associate Degree Programs

## Graduation Requirements

## ASSOCIATE DEGREES (AA and AS)

## REQUIREMENTS:

1. Completion of a minimum of **60 units** acceptable college work with at least a "C" (2.0) or better grade point average.  
**NOTE:** Courses numbered 900-999 are designated as non-degree applicable; however, units earned in these courses **DO COUNT** as student workload units. Courses numbered 001-299 are degree applicable.
2. Completion of a minimum of **eighteen (18)** semester units in a major discipline as identified by the college catalog. Students who have not yet selected a major field may graduate as a Liberal Studies major. (See "Majors" on page 104.) Work Experience units may not be applied to the major.  
**Prospective transfer students should complete the general education and lower division requirements of the school to which they will be transferring.**
3. Completion of **twelve (12)** semester units in residence at Crafton Hills College.
4. Demonstrated reading capability at the 12th grade level or higher on the Nelson-Denny test OR completion of a READ 078X2, with a grade of "C" or better, OR a score of 85 or better on the reading portion of the placement test (Accuplacer) or equivalent scores or courses from another accredited institution.
5. Mathematics proficiency as demonstrated by achieving a passing score on the Mathematics Proficiency exam OR completion of MATH 090 (Elementary Algebra) or any higher level math course with a grade of "C" or better or equivalent course from another accredited institution.
6. Writing competency as demonstrated by a grade of "C" or better in ENGL 015 (Preparation for College Writing) OR ENGL 101 (Freshman Composition), OR an equivalent course from another accredited institution.
7. Completion of the Orientation course (PCD 055) that is required, as of FALL 2001, for all first-time college students in compliance with California's Matriculation Plan. Students with proof of previous college work or an orientation course from another accredited institution MAY be exempt. PCD 055 should be completed within the first two semesters of attendance. See a counselor for details.
8. The following restrictions apply to the **60 units** required for graduation:
  - a. A maximum of **4 units** of physical education activities may be applied.
  - b. A maximum of **15 units** of credit (CR) grades may be applied. No course in the student's major or required for that major may be taken for credit (CR).
  - c. A maximum of **6 units** of reading and study skills courses numbered 001-099 may be applied.
  - d. A maximum of **16 units** of Occupational Work Experience or **6 units** of General Work Experience may be applied for elective credit ONLY.
9. Completion of a minimum of **twenty-six (26)** units of general education must be distributed as indicated: three to four units in category A, two units in category B and a minimum of six units in three of the following four categories (C, D, E and F). A minimum of three units must be earned in the remaining category. No single course may be used to meet more than one general education requirement.
  - a. **English** (3-4 units minimum) to be selected from ENGL 015 or 101
  - b. **Physical Education/Nutrition/Health Education** (2 units) HEALTH 102, 103, 263  
PE/I, PE/T  
PE 263
  - c. **Natural Sciences** (3-6 units)  
ANAT 101, 150, 151  
ASTRON  
BIOL  
CHEM  
GEOG 110/111, 114, 126  
GEOL  
MICRO  
OCEAN  
PHYSIC
  - d. **Humanities** (3-6 units) Students must take at least one course from section I:
    - I. ANTHRO 110  
ART 100, 102, 105  
ENGL 150, 152, 155, 160, 163, 170, 175, 232, 250, 260, 261, 270, 271, 275  
FOREIGN LANGUAGE (including ASL)  
HIST 160, 161, 170, 171  
INTDIS 101, 102, 108, 130, 140  
MUSIC 100, 103, 120, 134  
PHIL  
RELIG  
SPEECH 120, 121  
THART 100, 108, 109
    - II. Applied Arts  
Art, Music or Theatre Arts majors may not use applied courses to fulfill the Humanities requirement.  
ART: All courses may apply except 100, 102 and 105  
MUSIC: All courses may apply except 100, 103, 120 and 134  
THART All courses may apply except 100, 108 and 109

- e. **Social Sciences** (3-6 units)  
 ANTHRO  
 ECON  
 GEOG 120  
 HIST  
 POLIT  
 PSYCH (except 055)  
 SOC
- f. **Communication & Analytical Thinking** (3-6 units)  
 BIS 145  
 BUSAD 053, 145  
 CIS  
 ENGL 015, 101, 102  
 MATH (except 942, 952)  
 PHIL 103  
 SPEECH 100, 101, 111, 140

The following Associate Degree majors are available at Crafton Hills College. The choice of major determines if the degree granted will be an Associate of Arts (AA) or an Associate of Science (AS). A minimum of 18 semester units as defined by the college catalog is required to complete a major. General Education and graduation requirements are the SAME for every major.

## MAJORS

### ASSOCIATE OF ARTS

- Accounting
- Administration of Justice
- Anthropology
- Art
- Business Administration
- Child Development
- Economics
- English
- History
- Liberal Studies
- Marketing
- Music
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Spanish
- Speech
- Theatre Arts

### ASSOCIATE OF SCIENCE

- Astronomy
- Biology
- Certified Respiratory Therapist
- Chemistry
- Computer Information Systems
- Emergency Medical Services
- Fire Technology
- Geography
- Geology
- Mathematics
- Physics
- Radiologic Technology
- Registered Respiratory Therapist
- Speech-Language Pathology Assistant

### ACCOUNTING (AA)

#### Required Courses:

- ACCT 210, 211, 220, 221, 225, 226
- BUSAD 100

### ADMINISTRATION OF JUSTICE (AA)

#### Required Courses:

- ADJUS 101, 102, 103, 104, 105
- Select six units from the following:
- ADJUS 106, 107, 108
- PHIL 103
- SOC 141

### ANATOMY/PHYSIOLOGY (AS)

- See BIOLOGY

### ANTHROPOLOGY (AA)

#### Required Courses:

- ANTHRO 100, 102, 106, 107, 110
- GEOG 110
- SOC 100

### ART (AA)

#### Required Courses:

- ART 100, 102, 105, 120x4 (must be taken twice), 124x4, 132x4

**ASTRONOMY (AS)****Required Courses:**

- ASTRON 150, 160
- PHYSIC 200, 201
- CHEM 150, 151
- MATH 250, 251, 252

**Recommended Course:**

- MATH 254

**BIOLOGY (AS)****Required Courses:**

- BIOL 130, 131
- CHEM 150, 151
- PHYSIC 110, 111
- Students wishing to earn an AA with an emphasis in either Anatomy and Physiology or Microbiology must also complete:

**Emphasis in Anatomy and Physiology:**

- ANAT 150, 151

**Emphasis in Microbiology**

- MICRO 150 and 247A or MICRO 102

**BUSINESS ADMINISTRATION (AA)****Required Courses:**

- BUSAD 100, 200, 210, 230
- ACCT 210, 211
- MARKET 100

- **CHEMISTRY (AS)**

**Required Courses:**

- CHEM 150, 151, 212, 213
- PHYSIC 110, 111

**CHILD DEVELOPMENT (AA)****Required Courses:**

- CD 100, 105, 112, 126, 205x4
- Select at least two courses from the following:
- CD 115, 130, 131, 132, 133, 134, 136, 185, 186

**COMPUTER INFORMATION SYSTEMS (AS)****Required Courses:**

- CIS 101 and 103 or 114, 130, and 140, or 150
- Select nine additional units from courses in one of the following tracks:

**Emphasis in Network Technician:**

- CIS 109, 131, 151, 152

**Emphasis in Hardware Technician:**

- CIS 109, 131, 152

**Emphasis in Programming:**

- CIS 113, 115, 116, 117, 203
- MATH 151, 250, 251, 252, 254

**Emphasis in Webmaster:**

- CIS 111, 117, 118, 160, 161, 163, 168

**ECONOMICS (AA)****Required Courses:**

- ECON 100, 200, 201
- ENGL 101
- MATH 090, 108

**EMERGENCY MEDICAL SERVICES (AS)****Required Courses:**

- EMS 150, 151, 152, 153, 154, 155, 156, 157

**ENGLISH (AA)****Required Courses:**

- ENGL 101 and 102 or 152
- Select six units from the following:
- ENGL 260, 261, 270, 271
- Select six additional units from the following:
- ENGL 150, 155, 160, 163, 170, 175, 232, 250, 260, 261, 270, 271, 275

**FIRE TECHNOLOGY (AS)****Required Courses:**

- FIRET 100, 101, 102, 103, 106
- Select 5.5 units from the following:
- FIRET 087, 104, 116, 118

**GEOGRAPHY (AS)****Required Courses:**

- GEOG 110, 111
- GEOL 100
- MATH 103
- OCEAN 101

**Select three units from the following:**

- GEOG 120
- GEOL 170x4, 270x4
- CHEM 102, 150, 151

**GEOLOGY (AS)****Required Courses:**

- GEOG 110, 111
- GEOL 100
- CHEM 150, 151
- PHYSIC 200, 2201

**HISTORY (AA)****Required Courses:**

- HIST 100, 101, 160, 161, 170, 171
- Select six units from the following:
- GEOG 110
- PHIL 103
- POLIT 100

**LIBERAL STUDIES (AA)**

- Completion of all graduation requirements and a total of 60 degree applicable units which MUST include a minimum of 26 units of General Education.

**LIBERAL STUDIES EDUCATION (AA)**

- Contact Child Development and Education Department Head

**MARKETING (AA)****Required Courses:**

- MARKET 100, 105, 110
- BUSAD 053, 100, 210

**MATHEMATICS (AS)****Required Courses:**

- MATH 250, 251, 252
- Select five units from the following:
- MATH 108, 115, 151, 254
- CIS 103, 114, 115, 116
- PHYSIC 110, 111, 200, 201

**MICROBIOLOGY (AS)**

- See Biology

**MUSIC (AA)****Required Courses:**

- MUSIC 101, 102, 103, 135x4 (must be taken four times)

**Select eight units from the following:**

- MUSIC 150x4, 156x4, 174x4, 175x4

**PHILOSOPHY (AA)****Required Courses:**

- PHIL 101, 103, 105
- INTDIS 101 or INTDIS 102
- RELIG 101, 110

**PHYSICS (AS)****Required Courses:**

- PHYSIC 200, 201
- CHEM 150, 151
- MATH 250, 251, 252

**POLITICAL SCIENCE (AA)****Required Courses:**

- POLIT 100
- ECON 200, 201
- GEOG 110
- HIST 100, 101
- PHIL 103

**PSYCHOLOGY (AA)****Required Courses:**

- PSYCH 100
- Select six units from the following:
- PSYCH 102, 110, 112, 150

**Select nine units from the following, of which at least six units must by PSYCH courses:**

- PSYCH 103, 116, 118, 132
- SOC 100, 105

**RADIOLOGIC TECHNOLOGY (AS)**

- Radiologic Technology is a fully accredited, hospital-based program operated cooperatively by Crafton Hills College and the Arrowhead Regional Medical Center.
- RADIOL 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115A, 115B, 200, 201, 202, 203, 204, 205, 207, 208, 209, 210, 211, 212, 213A, 213B

**RELIGIOUS STUDIES (AA)****Required Courses:**

- ENGL 150
- RELIG 100, 101
- HIST 135, 160 or 161
- PHIL 101, 103

**RESPIRATORY CARE (AS)**

- Crafton Hills College offers programs in Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT). Admission is open to all students who have completed the prerequisite course(s). Contact the Respiratory Care Program Director for information about application materials and registration pass.

**Prerequisite Course:**

- RESP 050

**SOCIOLOGY (AA)****Required Courses:**

- SOC 100, 105, 141

**Select two courses from the following:**

- ANTRHO 102
- MATH 108
- PHIL 103
- PSYCH 100

**Select one additional course from the courses above or the following:**

- SOC 130, 150
- PSYCH 116

**SPANISH (AA)****Required Courses::**

- SPAN 101, 102, 103, 104
- ENGL 101, 102 or 152

**SPEECH (AA)****Required Courses:**

- SPEECH 100, 111, 140
- Select nine related units from the following:
- SPEECH 101, 120, 121, 125, 174, 246, 247, 248
- ENGL 155, 170
- INTDIS 180, 181
- MARKET 110
- PSYCH 132
- SOC 130
- THART 120

**SPEECH-LANGUAGE PATHOLOGY ASSISTANT (AS)****Required Courses:**

- SLPA 119, 120, 121, 122, 123, 124, 125, 126, 127
- ASL 101
- CD 105, 134

**Required General Education Courses:**

- ENGL 101
- ANAT 101
- HEALTH 102 or HEALTH/PE 263 or 2 units of PE/I activities courses
- ENGL 152 and 155 or 3 units of humanities courses
- PSYCH 100 and POLIT 100
- Or
- HIST 100
- Or
- HIST 101

**Select one of the following:**

- PSYCH 102, 103, 113, 150
- SOC 100
- And
- SPEECH 100 or 111
- And
- CIS 101 or 255

**THEATRE ARTS (AA)****Required Courses:**

- THART 100, 108, 120, 175, 176x4 (must be taken four times), 220, 221, 225x4

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## SECTION IV

# Transfer Programs - General Information

Each four year college or university has its own admissions standards. In addition, each determines which courses will be accepted to satisfy General Education, Major or elective requirements. Further, these requirements are subject to periodic change.

Students who plan to transfer to a four-year college or university should obtain a copy of the current catalog of that institution. Read it **carefully** and see a counselor to discuss appropriate courses to complete at Crafton Hills College prior to transfer.

Fortunately, the similarities between transfer programs are far greater than the differences. Read the information on the following pages to ensure a smooth, successful transfer.

### COMPLETING A TRANSFER PROGRAM

The freshman and sophomore years of a college or university program may be completed at Crafton Hills College. Transfer students may choose one of three systems:

- California State University System (23 campuses)
- University of California System (10 campuses)
- Private or Out-of-State Colleges and Universities

In order to transfer to the college or university of your choice, it is necessary to complete the following:

#### **1. General Education or Breadth Requirements**

These are the courses required of every transfer student regardless of major. General Education requirements are determined by the college or university the transfer student has chosen. Listed below are plans for transfer to the California State University System and the University of California System, and some information about transferring to a private or out-of-state institution.

##### **A. California State University (CSU) General Education Requirements. (See Page 122 of catalog).**

This plan applies to all 23 CSU campuses. In order to receive full certification and not be held to additional courses at the transfer university, students must complete at least 39 units of General Education in specific areas. When you have completed your General Education classes and all your grades have been reported, see a counselor for certification.

##### **B. Intersegmental General Education Transfer Curriculum (IGETC). See pages 125 and 126 of catalog.**

This plan applies to both the CSU and UC systems. However, some schools within the UC system **DO NOT** accept the IGETC plan.

Also, students with majors in Engineering, Science, Math or other high-unit majors are advised not to use IGETC. See a counselor for information. A **minimum** of 37 units of General Education with **at least** a "C" in each course is required to complete the IGETC. When you have completed your General Education classes and all your grades have been reported, see a counselor for certification.

##### **C. Private or Out-of-State Colleges General Education Requirements**

Consult the specific catalog of the college of interest and see a counselor. General Education courses for most colleges include ENGL 101, a transfer level math course, and selections from the Arts, Humanities, Social Sciences and Biological and Physical Sciences.

#### **2. Lower Division Courses for a Major.**

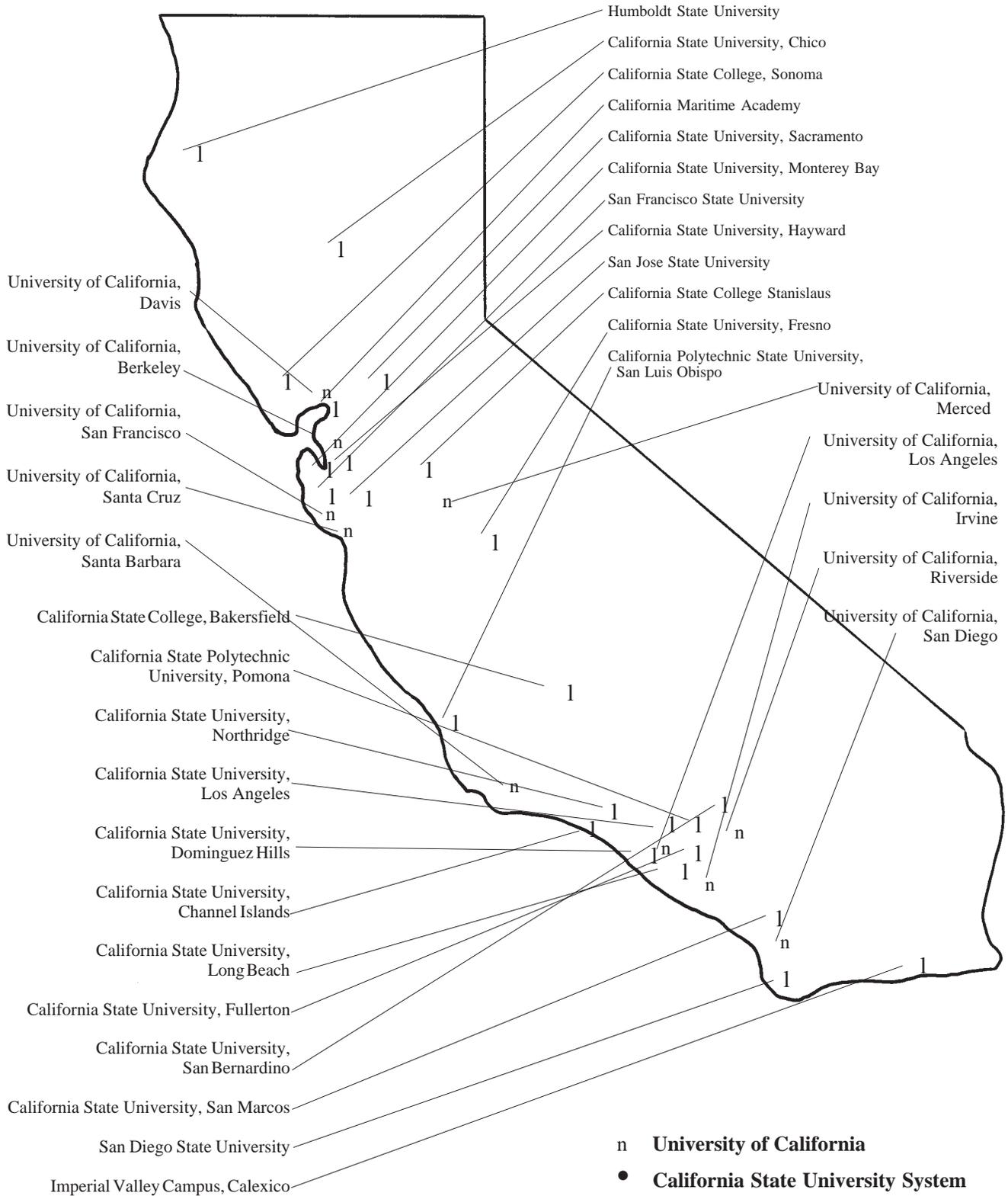
These courses provide the background and preparation needed to enter a college or university at the junior level. Crafton Hills College has articulated lower division major requirements with CSU San Bernardino and UC Riverside. Information for other colleges' lower division requirements is available at [www.assist.org](http://www.assist.org) via the Internet. See a counselor for assistance.

#### **3. Electives**

These are courses of choice that are taken to fill in the areas not covered by General Education or major requirements. Students must take enough "elective" courses to meet the minimum number of units required for transfer. The CSU requires at least 56 units to transfer while the UC system requires at least 60 units. (At least 60 transferrable units are required to transfer with junior status.) Private schools vary widely regarding the number of units required for transfer.

#### **4. Acceptable Grade Point Average**

The CSU system requires **at least** a 2.0 GPA, while the UC system requires **at least** a 2.4 GPA. However, these figures are minimum GPA requirements! Many colleges and universities and impacted majors within some colleges expect higher grade point averages for admission.



## The California State University

The State University system is one of the three branches of public higher education in California. There are twenty three campuses in the system:

**CALIFORNIA STATE UNIVERSITY BAKERSFIELD • Q**  
9001 Stockdale Highway, Bakersfield, CA 93311-1099  
(661) 664-3036 • www.csusbak.edu

**CALIFORNIA STATE UNIVERSITY, CHANNEL ISLANDS • S**  
One University Drive, Camarillo, CA 93012  
(805) 437-8400 • www.csuci.edu

**CALIFORNIA STATE UNIVERSITY, CHICO • S**  
400 W. First Street, Chico, CA 95929-0150  
(530) 898-6321 • www.csuchico.edu

**CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS • S**  
1000 E. Victoria Street, Carson, CA 90747  
(310) 243-3696 • www.csudh.edu

**CALIFORNIA STATE UNIVERSITY, FRESNO • S**  
5150 N. Maple Avenue, Fresno, CA 93740-0057  
(559) 278-2261 • www.csufresno.edu

**CALIFORNIA STATE UNIVERSITY, FULLERTON • S**  
800 N. State College Boulevard, Fullerton, CA 92834-9480  
(714) 278-2300 • www.fullerton.edu

**CALIFORNIA STATE UNIVERSITY, HAYWARD • Q**  
25800 Carlos Bee Blvd., Hayward, CA 94542-3035  
(510) 885-2624 • www.csuhayward.edu

**HUMBOLDT STATE UNIVERSITY • S**  
1 Harpst Street, Arcata, CA 95521-4957  
(707) 826-4402 • www.humboldt.edu

**CALIFORNIA STATE UNIVERSITY, LONG BEACH • S**  
1250 Bellflower Blvd., Long Beach, CA 90840-0106  
(562) 985-5471 • www.csulb.edu

**CALIFORNIA STATE UNIVERSITY, LOS ANGELES • Q**  
5151 State University Drive, Los Angeles, CA 90032-8530  
(323) 343-3901 • www.calstatela.edu

**CALIFORNIA MARITIME ACADEMY • S**  
200 Maritime Academy Dr., Vallejo, CA 94590  
(800) 561-1945 • www.csum.edu

**CALIFORNIA STATE UNIVERSITY, MONTEREY BAY • S**  
100 Campus Center Drive, Seaside, CA 93955-8001  
(831) 582-3518 • www.csumonterey.edu

**CALIFORNIA STATE UNIVERSITY, NORTHRIDGE • S**  
18111 Nordhoff Street, Northridge, CA 91330-8207  
(818) 677-3700 • www.csun.edu

**CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA • Q**  
3801 W. Temple Ave., Pomona, CA 91768-4003  
(909) 869-2000 • www.csupomona.edu

**CALIFORNIA STATE UNIVERSITY, SACRAMENTO • S**  
6000 J Street, Sacramento, CA 95819-6112  
(916) 278-6011 • www.csus.edu

**CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO • Q**  
5500 University Parkway, San Bernardino, CA 92407-2397  
(909) 880-5200 • www.csusb.edu

**SAN DIEGO STATE UNIVERSITY • S**  
5500 Campanile Drive, San Diego, CA 92182-8225  
(619) 594-5200 • www.sdsu.edu

**SAN FRANCISCO STATE UNIVERSITY • S**  
1600 Holloway Avenue, San Francisco, CA 94132-4002  
(415) 338-1113 • www.sfsu.edu

**SAN JOSE STATE UNIVERSITY • S**  
One Washington Square, San Jose, CA 95192-0009  
(408) 283-7500 • www.sjsu.edu

**CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO • Q**  
San Luis Obispo, CA 93407  
(805) 756-2311 • www.calpoly.edu

**CALIFORNIA STATE UNIVERSITY, SAN MARCOS • S**  
333 S. Twin Oaks Valley Road  
San Marcos, CA 92096-0001  
(760) 750-4848 • www.csusm.edu

**SONOMA STATE UNIVERSITY • S**  
1801 E. Cotati Ave., Rohnert Park 94928  
(707) 664-2778 • www.sonoma.edu

**CALIFORNIA STATE UNIVERSITY, STANISLAUS • 4-1-4**  
801 W. Monte Vista Ave., Turlock, CA 95382  
(209) 667-3151 • www.csustan.edu

**S = Semester System**  
**Q = Quarter System**

**CRAFTON HILLS COLLEGE**

**CALIFORNIA STATE UNIVERSITY (CSU) GENERAL EDUCATION REQUIREMENTS 2003 - 2004**

**General Provisions:**

- Students are required to complete **48** units of general education, **39** of which may be completed at Crafton Hills. **Upon request to the Admissions & Records Office, CHC will certify** completion of the following pattern to be applied toward the total general education requirement at any CSU.
- This pattern of general education **IS NOT** applicable to any campus of the University of California (UC). Please refer to the specific UC catalog of your choice, and/or the Intersegmental General Education Transfer Curriculum (IGETC) for transfer to CSU and UC.
- Completed courses **MAY NOT** be used in more than one area.
- COURSES IN BOLD PRINT ARE APPROVED FOR FALL 2003 AND THEREAFTER:**

**A. COMMUNICATION/CRITICAL THINKING**

9 units required. Students **MUST** complete one course in the three areas listed with a "C" or better prior to transfer.

- SPEECH 100 or 111
- ENGL 101
- ENGL 102 PHIL 103 or **SPEECH 125**

Courses from other colleges: \_\_\_\_\_ AP exams: \_\_\_\_\_

Met	IP	Need

**B. PHYSICAL AND LIFE SCIENCE/MATHEMATICS**

9 - 12 units required. Choose at least one course from each area. **At least one of the science courses must have a laboratory.**

Laboratory courses are underlined.

**1. Physical Science**

- ASTRON 150 + 160  
 CHEM 101, 102, 150, 151  
           212, 213  
 GEOG 110 + 111, 114, 126  
 GEOL 100, 101, 150,  
           160, 250  
 OCEAN 101  
 PHYSIC 100, 110, 111, 200, 201

**2. Life Science**

- ANAT 101, 150, 151  
 BIOL 100, 119, 123, 130, 131  
 MICRO 102, 150  
 OCEAN 101

**3. Laboratory Activity**

This requirement is satisfied by completion of any laboratory course in B1 or B2.

**4. Mathematics**

One course required with a "C" or better.  
 MATH 102, 103, 108, 115, 141, 151, 250, 251, 252, 254

Courses from other colleges: \_\_\_\_\_ AP exams: \_\_\_\_\_

Met	IP	Need

**C. ARTS/LITERATURE/PHILOSOPHY/FOREIGN LANGUAGE**

9 - 12 units required. **MUST** include at least one course from area 1 AND area 2. **Six (6)** units maximum per discipline may be applied.

- ART 100, 102, 105  
 INTDIS 140  
 MUSIC 100, 120  
**SPEECH 120**  
 THART 100, 108, 109

- ANTHRO 110  
 ENGL 150, 152, 155, 160, 163, 170, 175, 232, 250, 260, 261, 270, 271, 275  
 ASL 101, 102, FRENCH 101, 102, SPAN 101, 102, 103, 104  
 HIST 135, 160, 161, 170, 171  
 INTDIS 101, 102, 140  
 PHIL 101, 105  
 RELIG 100, 101, 110, 135, 175, 176  
 SPEECH 120, 121

Courses from other colleges: \_\_\_\_\_ AP exams: \_\_\_\_\_

Met	IP	Need

**D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS**

9 - 12 units required. **Six (6)** units maximum per discipline may be applied.

**NOTE:** POLIT 100 **PLUS** either HIST 100 or 101 fulfills the U S History, Constitution & American Ideals requirements for CSU graduation.

- ANTHRO 100, 102, 106, 107, 110, HIST 107, RELIG 110
- ECON 100, 200, 201
- SOC 141
- PSYCH 112, 116
- GEOG 120
- ANTHRO 107, HIST 100, 101, 107, 135, 153, 160, 161, 170, 171, RELIG 135
- CD 105, SOC 130, SPEECH 174**
- INTDIS 108, POLIT 100
- PSYCH 100, 102, 103, 110, 112, 116, 118, 133, 150, SOC 150
- PSYCH 150, SOC 100, 105, 130, 141, 150

Courses from other colleges: \_\_\_\_\_ AP exams: \_\_\_\_\_

Met	IP	Need

**E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT**

**3 Units required**

- HEALTH 102, 263  
 PHIL 105  
 PE/I, PE/T (any - one unit maximum)  
 PE 263  
 PSYCH 103, 116, 118, 133  
 SPEECH 140

Courses from other colleges: \_\_\_\_\_ AP exams: \_\_\_\_\_

Met	IP	Need

Student \_\_\_\_\_ Social Security Number \_\_\_\_\_

Date \_\_\_\_\_ Evaluator \_\_\_\_\_ Total Units Certified \_\_\_\_\_

**I. TRANSFERADMISSIONREQUIREMENTS**

**A. Lower Division Transfer Requirements:** If you have completed fewer than 56 transferable semester units, you may qualify for admission if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the admission requirements for first-time freshman.

**B. Upper Division Transfer:** If you have completed **at least** 56 transferable semester units, have a grade point average of 2.0 (C) or better in all transferable units attempted (nonresidents must have a grade point average of 2.4), and are in good standing at the last college or university attended, you may be eligible one of two ways:

1. You have completed at least 30 semester units of college courses with a grade of C or better **in each course** to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education requirements. The 30 semester units must include **all** of the general education requirements in communication in the English language (at least 9 semester units to include written communication, oral communication, and critical thinking) **and** mathematics (at least 3 semester units).
2. You have completed all subject requirements required for first-time freshmen at the CSU system. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects.

**II. IMPACTEDPROGRAMS:**

The CSU designates programs as impacted when more applications are received in the first month of the filing period than can be accommodated. Some majors are impacted at every campus where they are offered; others may be impacted only at some campuses. **Applicants to impacted majors must file the application for admission during the first month of the filing period and will be subject to supplementary admission criteria.** If you apply by mail, the postmark will be used to determine if you filed in the first month. Priority for admission to impacted programs is given to California residents.

**III. LOWERDIVISIONMAJORREQUIREMENTS**

Most majors require that you complete certain preparatory courses in your first two years of college. This can normally be accomplished at a community college. The Counseling/Career & Transfer Center maintains lower division major lists for transfer institutions. These requirements are subject to change. Consult the catalog for the college of your choice to determine regulations governing the completion of lower division major requirements and related restrictions. Refer to ASSIST ([www.assist.org](http://www.assist.org)) for information about lower division major requirements.

**IV. APPLICATIONFILINGPERIODS**

You are urged to file early! Applications to impacted majors must be filed during the initial filing period, which is the **first month** of the filing period. If applying after the initial filing period, consult the campus admissions office for current information. Except for impacted majors, campuses accept applications until enrollment categories are filled. Most campuses will acknowledge receiving your application within two to four weeks.

<b>Terms</b>	<b>Applications First Accepted</b>
Summer Semester or Quarter	February 1
Fall Semester or Quarter	October 1
Winter Quarter	June 1
Spring Semester or Quarter	August 1

**APPLICATIONFEE**

An application fee of \$55 in U. S. funds, payable to The California State University, is required for each new application filed. The fee is nonrefundable and may not be transferred to another term at any campus. The fee is required for **each** campus to which you apply.

## The University of California

The University of California has ten major campuses — Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz. All except Berkeley are on a quarter system. While all campuses have similar general lower division requirements and will accept a maximum of seventy semester units of transfer work, there are some subject differences among them.

### UC BERKELEY

Berkeley, CA 94720-5800  
(510) 642-6000 • www.berkeley.edu

### UC DAVIS

One Shields Avenue, Davis, CA 95616-8507  
(530) 752-1011 • www.ucdavis.edu

### UC IRVINE

Irvine, CA 92697-1075  
(949) 824-5011 • www.uci.edu

### UC LOS ANGELES

Los Angeles, CA 90095-1436  
(310) 825-4321 • www.ucla.edu

### UC MERCED

P.O. Box 2039  
Merced, CA 95344  
(209) 724-4400 • www.ucmerced.edu

### UC RIVERSIDE

Riverside, CA 92521-0119  
(909) 787-1012 • www.ucr.edu

### UC SAN DIEGO

9500 Gilman Drive, La Jolla, CA 92093-0021  
(858) 534-2230 • www.ucsd.edu

### UC SAN FRANCISCO

San Francisco, CA 94143-0404  
(415) 476-9000 • www.ucsf.edu

### UC SANTA BARBARA

Santa Barbara, CA 93106-2016  
(805) 893-8000 • www.ucsb.edu

### UC SANTA CRUZ

1156 High Street, Santa Cruz, CA 95064  
(831) 459-0111 • www.ucsc.edu

## MINIMUM ADMISSION REQUIREMENTS FOR TRANSFER APPLICANTS

A transfer applicant, according to the University, is a student who has graduated from high school and enrolled in a regular session at another college or university. A student who meets this definition cannot disregard his or her college record and apply as a freshman.

## CALIFORNIA RESIDENTS\*

To qualify for admission to the University as a transfer student, a student **must meet one of the three sets of requirements** described below. The pathway the student follows depends upon whether he or she was eligible for admission to the University when he or she graduated from high school.

If the student is a California resident\*, he or she must have at least a "C" (2.0) average in all transferable college coursework. The Subject, Scholarship, and Examination Requirements referred to below can be explained by a counselor.

1. Students who were eligible for admission to the University when they graduated from high school -- meaning they satisfied the Subject, Scholarship, and Examination Requirements - are eligible to transfer if they have a "C" (2.0) average in transferable coursework.
2. Students who met the Scholarship Requirement but not the Subject Requirement must take transferable college courses in the missing subjects, earn a "C" or better in each required course, and have an overall "C" average in all transferable coursework to be eligible to transfer.
3. Students who were not eligible for admission to the University when they graduated from high school because they did not meet the Scholarship Requirement must:
  - a. Complete 90 quarter units or 60 semester units of transferable college credit with a grade point average of **at least 2.4** (no more than 14 semester/21 quarter units may be taken Credit/No Credit) and,
  - b. Complete the following course pattern, earning a grade of "C" or better in each course:
    - two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
    - one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
    - four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

(Students who satisfy the Intersegmental General Education Transfer Curriculum (IGETC) prior to transferring to UC will satisfy Option 3b above of the transfer admission requirements.)

## NONRESIDENTS

The minimum admission requirements for nonresident transfer applicants are the same as those for residents, except that non-residents must have a grade point average of 2.8 or higher in all transferable college coursework.

\* Residency Status: The requirements for bonafide California residents also apply to dependents of University of California graduates and employees. The manner in which legal residence is defined for tuition purposes is different. For questions about your residency status, contact the Admissions or Registrar's Office at the appropriate campus.

**CRAFTON HILLS COLLEGE**

**Intersegmental General Education Transfer Curriculum for Transfer to CSU and UC 2003-2004**

Student's Name \_\_\_\_\_  
 (print) Last First Middle SSN (or Student I.D. #) Major

Completion of all of the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the California State University or University of California system without the need, after transfer, to take additional lower-division, general education courses to satisfy campus general education requirements. All campuses will accept IGETC EXCEPT for UC, San Diego's Eleanor Roosevelt and Revelle Colleges, UC, Berkeley's School of Business Administration and schools of engineering. **COURSES IN BOLD PRINT ARE APPROVED FOR FALL 2003 AND THEREAFTER.**

The IGETC is not advisable for all transfer students. If you are pursuing a major that requires extensive lower-division preparation, you may be better served by taking courses which fulfill the CSU General Education-Breadth requirements or those of the UC campus or college to which you plan to transfer. Majors include, but are NOT LIMITED to: Engineering, Business, Pre-professional programs.

**RESTRICTIONS:** A student who has been registered at a UC campus is not eligible for IGETC. This restriction does not apply to students who have taken UC summer session or Extension classes only.

**CERTIFICATION:** Be sure to request **CERTIFICATION** when you request transcripts be sent to your choice of university or college. The course requirements for all areas **MUST** be completed before IGETC can be certified. All courses **MUST** be completed with grades "C" or better. Consult with a counselor regarding exceptions to these UC policies.

**INSTRUCTION TO COUNSELORS:** Circle courses and enter units in appropriate column. **Requirements satisfied by exam should be noted.**

<b>AREA 1 - ENGLISH COMMUNICATION</b>  CSU - 3 courses required, one from each group below. UC - 2 courses required, one from group A and one from group B	OTHER COLLEGES AP EXAMS	COMPLETED	IN PROGRESS	REMAINING
Group A: English Composition, 1 course, 3 - 4 semester/ 4 - 5 quarter units. ENGL 101				
Group B: Critical Thinking - English Composition, 1 course, 3 - 4 semester/ 4 - 5 quarter units each course, ENGL 102				
Group C: Oral Communication (CSU only), 1 course, 3 semester/ 4 -5 quarter units, SPEECH 100 or SPEECH 111				
<b>AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING</b> (1 course, 3 - 4 semester/ 4 - 5 quarter units) MATH 102, 108, 115, 141**, 151, 250, 251, 252, 254				
<b>AREA 3 - ARTS AND HUMANITIES</b> (At least 3 courses with at least one from the Arts and one from the Humanities, 9 semester/12 - 15 quarter units.) <b>ARTS:</b> ART 100, 102, 105; MUSIC 100, 120; 134; THART 100, 108, 109				
<b>HUMANITIES:</b> ANTHRO 107*, 110* ENGL 150, 152, 155, 160, 163, 170, 175, 250, 260, 261, 270, 271, 275; HIST 100*, 101*, 107*, 135*, 160*, 161*, 170*, 171*; INTDIS 101, 102, 140; PHIL 101, 105; RELIG 100, 101, 110*, 135*, 175, 176 SPAN 103, 104				

<b>AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES</b> (At least 3 courses from at least two disciplines, 9 semester/ 12 - 15 quarter units) ANTHRO 100, 102, 106, 107*, 110* ECON 100**, 200, 201; GEOG 120; HIST 100*, 101*, 107*, 135*, 160*, 161*, 170*, 171*; POLIT 100* PSYCH 100, 102, 103, 110, 112, 116, 118, 133 RELIG 110*, 135* SOC 100, 105, <b>130</b> , 141	OTHER COLLEGES AP EXAMS	COMPLETED	IN PROGRESS	REMAINING
<b>AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES</b> (2 courses required, one Physical Science course and one Biological Science course; at least one must include a laboratory. 7 - 9 semester/ 9 - 12 quarter units.)  PHYSICAL: ASTRON 150, <u>160</u> ; CHEM <u>101**</u> , <u>102**</u> , 150, 151, 212, 213; GEOG 110, <u>111</u> , 114, <u>114</u> , 126; GEOL <u>100</u> , 101, 150, <u>160</u> , 250; OCEAN 101; PHYSIC <u>100,**</u> <u>110**</u> , <u>111**</u> , <u>200**</u> , <u>201**</u>  BIOLOGICAL: ANAT <u>150</u> , <u>151</u> , BIOL <u>100</u> , <b>119</b> , 123, <u>130</u> , <u>131</u> ; MICRO <u>102**</u> , 150;  NOTE: Lab courses and Labs are underlined.				
<b>UC REQUIREMENT ONLY - Language Other Than English</b> Proficiency equivalent to two years of high school with grades of "C" or better, or one year of college study in the same language. The following courses at this institution fulfill the requirement. ASL 102, FRENCH 102, SPAN 102				
<b>CSU REQUIREMENT ONLY - U.S. History, Constitution and American Ideals</b> (Not a part of IGETC; may be completed prior to transfer) (6 semester units, one course from group 1 and one course from group 2) Group 1 - POLIT 100* Group 2 - HIST 100*, 101*				

- \* Course may be listed in more than one area, but shall not be certified in more than one area.
- \*\* Indicates that transfer credit may be limited by UC or CSU or both. Please see the catalog or consult a counselor.

**NOTE:** Approved courses are added to the IGETC each year. When a course is approved for IGETC, it will apply **ONLY** for the year of approval and thereafter.

<b>- FOR OFFICE USE ONLY -</b>	
<b>IGETC UNITS CERTIFIED</b>	
Area 1 _____, Area 2 _____, Area 3 _____, Area 4 _____, Area 5 _____, Total Units _____	
Foreign Language Proficiency Completed: (UC only)	Yes _____ No _____
U.S. History/Government: (CSU only)	Yes _____ No _____
IGETC Completed:	Yes _____ No _____
Partial Certification: Course(s) remaining/Area(s) _____	
(Maximum of 2 courses remaining)	
Evaluator _____	Date _____

## Private Colleges and Out-of-State Schools

As mentioned before, obtain a current college catalog for the Private or out-of-state school of interest. It is important to read the catalog carefully and then see a counselor to plan a transfer program.

The counseling office has specific transfer requirements for programs at Loma Linda University and approved General Education requirement lists for several private colleges, including Biola University, California Lutheran College, University of Redlands and the University of Southern California (USC). Some Private schools allow the use of the Intersegmental General Education Transfer Curriculum (IGETC) to meet lower division General Education requirements. Check with the transfer school for details.

## Faculty and Administrators

The dates in parentheses indicate the year of appointment to the San Bernardino Community College District.

**ACQUISTAPACE, Kris** (1997) ..... English  
**Associate Professor**  
B.A., Washington University, St. Louis, Missouri  
M.Ed., University of Southern Mississippi  
M.A., California State University, Dominguez Hills

**ADAMS, Matthew C.** (2001) ..... Physics/Astronomy  
**Assistant Professor**  
A.A., Riverside City College, Riverside  
B.A., University of California, Riverside  
M.S., Ph.D., University of California, Irvine

**ANDREWS, Sandra** (1985) ..... Emergency Medical Services  
**Professor**  
A.S., Weber State College

**BAHNER, Daniel** (1991) ..... English  
**Professor**  
B.A., Humboldt State University  
M.A., California State University, Long Beach

**BEITSCHER, Jane** (1991) ..... History  
**Professor**  
B.A., Pennsylvania State University  
Ph.D., University of Wisconsin

**BELL, Reynaldo V.** (2002) ..... Respiratory Therapy  
**Assistant Professor**  
A.S., Victor Valley Community College  
B.S., California State University, San Bernardino

**BIFFLE, Christopher** (1971) ..... Philosophy/Religious Studies  
**Professor**  
B.A., University of California, Santa Cruz  
M.A., California State University, San Francisco

**BOEBINGER, Kelly** (1999) ..... Chemistry  
**Associate Professor**  
A.A., Riverside Community College  
B.A., California State University, San Bernardino  
M.S., University of California, Riverside

**BRAINARD, Tony** (1976) ..... Respiratory Care  
**Professor**  
B.A., University of Redlands

**BRINK, T.L.** (1989) ..... Psychology  
**Professor**  
B.A., Claremont Men's College  
A.M., Ph.D., University of Chicago  
M.B.A., Santa Clara University

**BRYSON, Kenneth L.** (1979) ..... Respiratory Care  
**Professor**  
A.A., Loma Linda University  
B.V.E., California State University, San Bernardino  
M.A., University of Redlands

**BYRON, Elizabeth J.** (1979) ..... Library/Philosophy  
**Professor**  
B.A., University of Redlands  
M.S., California State University, Fullerton

**CHAVIRA, Rejoice** (1999) ..... EOPS/CARE/CalWORKs  
**Associate Professor**  
B.A., Chapman University  
M.A., California State University, Dominguez Hills

**CONTRERAS, Alex E.** (1997) ..... Student Services  
**Vice President**  
A.A., Southwestern College, Chula Vista  
B.B.A., M.S., National University, San Diego

- COTA, Marco** (1993) ..... Counseling  
**Professor**  
 A.A., College of the Desert  
 B.A., M.A., California State University, San Bernardino
- CRISE, Robert D.** (2001) ..... Mathematics  
**Assistant Professor**  
 B.S., University of California, Riverside  
 M.A., California State University, Fullerton
- CROW, Kathy** (1998) ..... Emergency Medical Services  
**Associate Professor**  
 A.S., Riverside Community College  
 B.V.E., California State University, San Bernardino
- DAVENPORT, Michael W.** (2002) ..... Computer Info. Systems  
**Assistant Professor**  
 A.A., Fullerton Community College  
 B.S., California Polytechnic University, San Luis Obispo
- DEMING, Merrill** (1978) ..... Mathematics  
**Professor**  
 B.A., The George Washington University  
 M.A., California State University, San Bernardino
- DE SALLIERS, Deborah** (1976) ... Health & Physical Education  
**Professor**  
 B.S., Pepperdine University  
 M.S., University of California, Los Angeles  
 DrPH, Loma Linda University
- DOUTHIT, Mildred M.** (2001) ..... Disabled Student Services  
**Assistant Professor**  
 A.A., Henderson State University  
 B.A., California State University, San Bernardino  
 M.A., Chapman University
- FERRACONE, Donna** (1989) ..... Instruction  
**Dean, Program Development**  
 R.N., Queen of Angels School of Nursing, Los Angeles  
 B.V.E., California State University, San Bernardino  
 M.A., University of Redlands
- FITE, Patrick Y.** (2001) ..... Marketing & Public Relations  
**Director**  
 B.A., Auburn University, Auburn, Alabama
- FRANKLIN, Bradley H.** (1979) ..... Respiratory Care  
**Professor**  
 B.S., University of Missouri  
 M.Ed., University of Redlands
- GIACONA, Judith A.** (1981) ..... College Nurse  
**Professor**  
 B.S., Walla Walla College, Washington  
 M.A., University of Redlands
- GIBSON, Kathleen R.** (1994) ..... Mathematics  
**Professor**  
 A.S., Crafton Hills College  
 B.A., University of Redlands  
 M.A., California State University, San Bernardino
- GIST, John E.** (1998) ..... Counseling  
**Associate Professor**  
 A.A., Santa Ana College  
 B.A., M.S., California State University, San Bernardino
- HARRINGTON, Judith** (1990) ..... Counseling  
**Professor**  
 B.A., California State University, Fullerton  
 M.A., Loyola Marymount University
- HARRISON, Gloria M.** (1968) ..... **President**  
 A.A., San Bernardino Valley College  
 B.A., M.A., University of California, Riverside
- HEIST, Jeremy W.** (2002) ..... English  
**Assistant Professor**  
 B.A., Harvard College  
 M.A., Washington University, St. Louis
- HOGREFE, Richard K.** (2001) ..... Speech  
**Assistant Professor**  
 B.S., Texas Christian University  
 M.A., Eastern Michigan University
- HOLBROOK, James** (1984) ..... Emergency Medical Services  
**Professor**  
 National Registry Emergency Medical Technician Paramedic,  
 Loma Linda University  
 B.V.E., M.A., California State University, San Bernardino  
 Ed.D., Nova Southeastern University
- HOYT, Denise R.** (1998) ..... Computer Info. Systems  
**Assistant Professor**  
 A.A., Cypress College  
 B.A., California State University, Chico  
 M.A., University of Redlands
- JOB, Samuel** (1984) ..... Library  
**Professor**  
 A.A., Merced College  
 B.A., M.L.S., Brigham Young University
- JONASSON, Mark** (1998) ..... Biology  
**Associate Professor**  
 B.A., M.A., Pacific Union College  
 M.S., California State University, San Bernardino  
 Ph.D., Loma Linda University
- JONES, JoAnn** (2000) ..... Child Development  
**Assistant Professor**  
 A.A., College of the Desert  
 B.A., California State University, San Bernardino  
 M.Ed., Azusa Pacific University
- KOEPPER, John** (1998) ..... Fire Technology  
**Associate Professor**  
 A.S., Chaffey College  
 B.A., National University
- KOSMATKA, Arnold L.** (1978) ..... Respiratory Care  
**Professor**  
 A.A.S., Southern Oregon University  
 B.A., Johnston College  
 M.A., University of Redlands  
 Ed.D., Nova University
- KOZANOVA, Marina** (1999) ..... Spanish  
**Associate Professor**  
 B.A., M.A., Moscow State University

- LEDOUX, Janine** (1991) ..... Health and Physical Education  
**Professor**  
B.S., M.Ed., Bridgewater State College  
DrPH, Loma Linda University
- LICERIO, Mamerto D.** (1979) ..... Disabled Student Services  
**Professor**  
B.A., M.A., San Francisco State University
- LOWE, Lynn** (1999) ..... Reading  
**Associate Professor**  
A.A., San Bernardino Valley College  
B.A., M.A., California State University, San Bernardino
- MANSOURIAN, Farhad** (1990) ..... Economics  
**Professor**  
B.S., M.A., University of California, Riverside
- MATTHEWS, Damaris** (1985) ..... Learning Resource Center  
**Professor**  
B.A., Oakwood College  
M.A., California State University, San Bernardino
- McATEE, Robert** (2000) ..... Counseling  
**Assistant Professor**  
B.S., M.A., California State University, San Bernardino
- McCONNELL, Mark D.** (2001) ..... Music  
**Assistant Professor**  
B.A., University of Northern Colorado, Greeley  
M.M., University of New Mexico, Albuquerque
- McCORMICK, Kim** (1999) ..... Work Experience  
**Associate Professor**  
A.A., Chaffey College  
B.S., M.S., University of La Verne
- McLAREN, Meridyth** (2002) ..... Child Development  
**Assistant Professor**  
B.A., Denison University  
M.S., Purdue University
- MOORE, Sandra B.** (1990) ..... Psychology  
**Professor**  
B.A., Northwestern University  
M.S., Ph.D., University of California, Santa Cruz
- MORAN, Virginia** (2000) ..... Research and Planning  
**Director**  
B.A., M.A., California State University, San Bernardino
- MUSKAVITCH, John** (1999) ..... Financial Aid  
**Financial Aid Director**  
A.A., Northern Essex, Haverhill, MA  
B.S., California State University, Long Beach
- PACE-PEQUENO, Catherine** (2001) ..... Computer Information  
Systems  
**Assistant Professor**  
A.S., Crafton Hills College  
B.S., M.P.A., California State University, San Bernardino
- PEREZ, Mario A.** (1974) ..... History  
**Professor**  
A.A., San Bernardino Valley College  
B.A., M.A., University of California, Riverside
- PETROVIC, Snezana** (2002) ..... Art  
**Assistant Professor**  
B.F.A., University of Belgrade, Yugoslavia  
M.F.A., University of California, Irvine
- PHILLIPS, Theodore P.** (2001) ..... Instructional Design/  
Assistive Technology Specialist  
**Assistant Professor**  
B.S., California Polytechnic University, Pomona  
M.A., California State University, San Bernardino
- RABAGO, Ralph J.** (1989) ..... Health and Physical Education  
**Professor**  
B.A., University of Redlands  
M.S., University of Idaho
- RACE, Aaron J.** (2002) ..... English  
**Assistant Professor**  
A.A., Crafton Hills College  
B.A., California State University, San Bernardino  
M.F.A., Southern Illinois University Carbondale
- RAMIREZ, Stephen J.** (2001) ..... Mathematics  
**Assistant Professor**  
A.A., A.S., Mt. San Jacinto Community College  
B.A., M.A., California State University, San Bernardino
- REESE, Gary** (2002) ..... Emergency Medical Services  
**Assistant Professor**  
A.S., Crafton Hills College
- SADLER, Roger** (1999) ..... Biology  
**Associate Professor**  
B.S., Loma Linda University  
M.S., California State University, San Bernardino
- SALT, Kimberly** (1999) ..... Chemistry  
**Associate Professor**  
B.S., M.S., Ph.D., University of California, Riverside
- SCALITER, Bret** (2000) ..... English  
**Assistant Professor**  
A.A., Crafton Hills College  
B.A., M.A., California State University, San Bernardino
- SEARLE-GRASSICK, Jean** (1995) ..... Child Development  
**Professor**  
CDA, Santa Monica College  
B.A., M.A., Pacific Oaks College
- SHIMELD, Lisa A.** (1989) ..... Microbiology  
**Professor**  
B.A., M.S., California State University, San Bernardino
- SHODAHL, Susan A.** (1977) ..... Instruction  
**Vice President**  
B.A., University of San Francisco  
Ph.D., University of Nevada, Reno
- SNOWHITE, Mark S.** (1967) ..... English  
**Professor**  
B.A., University of Maryland  
M.A., University of California, Riverside
- SONDERGAARD-COLVEY, Kirsten** (1981) .. Student Services  
**Dean**  
B.A., University of California, Santa Cruz  
M.A., California State University, San Bernardino  
M.S., Pepperdine University

- TAYLOR, Katharyn K.** (1979) ..... Respiratory Care  
**Professor**  
B.S., California State Polytechnic University, Pomona
- THURMAN, Laurens K.** (1972) ..... Instruction  
**Interim Vice President, Administrative Services**  
B.A., M.A., University of California, Riverside
- VAJNA, Susan** (1986) ..... Business Information Systems  
**Professor**  
A.A., San Bernardino Valley College  
B.A., California State University, San Bernardino
- WHITE, Frances** (1998) ..... Counseling  
**Associate Professor**  
A.A., San Bernardino Valley College  
B.A., M.A., California State University, San Bernardino
- WILSON, Sherri** (1999) ..... Mathematics  
**Associate Professor**  
B.A., M.S., University of California, Riverside
- WINNINGHAM, Laura** (1983) ..... Library  
**Professor**  
B.A., B.S., California State Polytechnic University  
M.A., University of Southern California  
M.S., California State University, Fullerton
- WORD, Daniel** (2001) ..... Emergency Medical Services  
**Assistant Professor**  
A.S., Crafton Hills College
- WURMBRAND, Marc** (1972) ..... Art  
**Professor**  
B.F.A., Cooper Union  
M.F.A., Yale University
- YAMAMOTO, June** (1988) ..... Instruction  
**Dean, Instructional Services**  
A.A., Orange Coast College  
B.A., California State University, Long Beach  
M.A., California State University, San Bernardino
- BLAKE, Samantha** (2003) ..... Child Development  
B.A., California State University, San Bernardino
- BOTTROFF, Stephen M.** (1997) ..... Speech  
Ed.D., La Sierra University
- BOUSLOUGH, Gail** (1997) ..... English  
M.A., California Polytechnic University, Pomona
- BROYLES, Larisa L.** (2000) ..... Anthropology  
Ph.D., University of California, Riverside
- CABANILLA, Cliff** (1967) ..... Theatre Arts  
M.A., Brigham Young University
- CHRISTENSEN, David W.** (1978) ..... Music  
M.M., University of Redlands
- CISMOWSKI, Robert D.** (1978) ..... Mathematics  
M.S., University of Alaska
- COLEMAN-REICHMANN, Myralynn** (1991) ..... Psychology  
M.A., California State University, San Bernardino
- COWLES, Randee T.** (1999) ..... English  
M.A., California State University, San Bernardino
- CRAW, Robert L.** (1995) ..... Mathematics  
M.A., University of Nebraska
- CRAWFORD, Barry C.** (1999) ..... English  
Ph.D., University of California, Riverside
- DRAKE-GREEN, Penny M.** (1996) ..... Speech  
M.A., California State University, San Bernardino
- ESCOBAR-PONI, Bertha C.** (1999) ..... Anatomy  
M.D., Universidad Centro-Occidental "Lisandro Alvarado" (Venezuela)
- FRANKO, Karla J.** (1997) ..... Religious Studies  
M.A., Azusa Pacific University
- GONZALES, Raymond** (1972) ..... Foreign Languages  
M.A., University of California, Riverside
- GOUGH, Alan** (2000) ..... Mathematics  
M.A., University of California, Riverside
- HAKALA, Gary R.** (1989) ..... Mathematics  
B.S., University of Wyoming
- HANLEY, Jodi A.** (2001) ..... Mathematics  
M.A., California State University, San Bernardino
- HAYNES, Michael P.** (2000) ..... History  
M.A., Long Beach State University
- HAYNES, Michael P.** (2000) ..... History  
M.A., California State University, Long Beach
- HEUMANN, Michael** (1997) ..... English  
Ph.D., University of California, Riverside
- JENSEN, DeAnna** (1997) ..... English  
M.A., California State University, San Bernardino

## Adjunct Faculty

*The dates in parentheses indicate the year of appointment to the San Bernardino Community College District*

- ABEL, Susan S.** (2002) ..... Child Development  
Ph.D., Claremont Graduate University
- ANDERSON, Jonathan B.** (1999) ..... English  
M.A., California State University, San Bernardino
- ARNETT, Marjorie** (2002) ..... Health Education  
M.A., California State University, Fullerton
- BEGLEY, David S.** (2000) ..... Mathematics  
M.A., California State University, San Bernardino
- BELL, Patricia** (1981) ..... Accounting  
M.B.A., California State University, San Bernardino

- JOHNSTON, Claude J. (1971) ..... Mathematics  
B.S., University of Arizona, Tucson
- KADOW, Eugene V. (1964) ..... Mathematics/Economics  
M.A., Fresno State University
- KELLER, Daniel L. (2000) ..... Administration of Justice  
M.A., California State University, San Bernardino
- LLOYD, Gordon (1976) ..... Political Science  
Ph.D., Claremont Graduate School
- MAINESS, Karen J. (2001) ..... Speech-Language  
Ph.D., Columbia University Pathology and Audiology
- MBOLO, Bill (2002) ..... Mathematics  
M.A., California State University, Long Beach
- METZINGER, Nancy (1992) ..... Information Technologies  
M.S., Governor State University, Park Forest
- MILLOY, Wayne (1976) ..... Mathematics  
Ed.D., Nova University
- MOGHARABI, Roy (2000) ..... Mathematics  
M.A., University of Berlin, Germany
- MOSS, E. David (2002) ..... Speech  
M.A., California State University, Long Beach
- MUNRO, Gordon D. (1966) ..... Politics  
Ph.D., Claremont Graduate University
- McDONOUGH, Judith D. (1997) ..... Health Education  
Dr. P.H., Loma Linda University
- McKINNEY, William R. (1974) ..... Psychology  
M.Div., Vanderbilt University, Nashville
- NAMEKATA, James S. (1999) ..... Physical Education  
M.A., California State University, San Bernardino
- NIELSEN, William C., Jr. (1981) ..... Physics  
M.S., Air Force Institute of Technology
- OLMOS-BRISENO, Blanca (2002) ..... Spanish  
B.A., California State University, San Bernardino
- O'TOOLE, Robert L. (1991) ..... Accounting/  
M.B.A., Azusa Pacific University Business Administration
- PAPP, Edward J. (2003) ..... Computer Information  
B.S., University of Redlands Systems
- PASTUSCHEK, Susanne L. (2000) ..... Administration of Justice  
M.F.A., Antioch University, Los Angeles
- POFFEK, Christine (1984) ..... Physical Education  
M.A., Azusa Pacific University
- RAMSEYER, Diana M. (2001) ..... English  
M.A., California State University, San Bernardino
- ROCHE, John T. (2002) ..... Mathematics  
M.A., Boston College
- ROSENTHAL, Mary (1998) ..... Mathematics  
B.S., Union College, Nebraska
- SHELBY, Patricia A. (1997) ..... Sociology  
M.A., California State University, Fullerton
- SHOOK, William (1976) ..... Business Administration/  
M.A., California State University, San Bernardino Marketing
- SIDHUM, Yehia (1999) ..... Mathematics  
B.Sc., Cairo, Egypt
- SMITH, Eddie (1991) ..... Fire Technology  
B.A., California State University, San Bernardino
- STONE, Clarence E. (1974) ..... Business Administration  
M.P.A., University of Southern California
- SULLIVAN, Jacquelyn G. (1992) ..... Physical Education  
M.S., California Polytechnic University
- SULLIVAN, John M. (1997) ..... English  
M.A., California State University, San Bernardino
- THOMERSON, Katherine ..... English  
M.A./M.F.A., Wesleyan University, Connecticut
- URIA, Jose L. (1989) ..... Spanish  
M.A.E.D., Azusa Pacific University
- VASQUEZ, Henry E. (1988) ..... Emergency Medical Services  
A.S./A.A., Crafton Hills College
- VOLDMAN, Mark (2002) ..... Mathematics  
Ph.D., Moscow University, Russia
- WALKER, Vicki I. (2003) ..... Health Education  
M.P.H., Loma Linda University
- WEINTRAUB, Jarett M. (2002) ..... Philosophy  
M.A., University of California, Riverside
- WHEATON, James J. (1991) ..... Fire Technology  
A.A./A.S., San Bernardino Valley College
- WILSON, Michael J. (2000) ..... History  
M.A., California State University, Fullerton
- WRIGHT, John L. (1978) ..... Physical Education  
A.A., San Bernardino Valley College
- YARNELLE, Edward (1994) ..... Interdisciplinary Studies/  
D.A., Ball State University Psychology

**PRESIDENT EMERITUS**

**Luis S. Gomez** (1976-2000) ..... President

**VICE PRESIDENTS EMERITI**

**James G. Bisi** (1968-1997) ..... Vice President, Student Services

**Gordon A. Clopine** (1961-1997) ..... Vice President,  
Administrative Services & Professor of  
Geology/Geography

**DEAN EMERITI**

**Ronald O. Kibby** (1977-2001) ..... Dean, Instructional/  
Occupational Education

**Don A. Yowell** (1972-1987) .... Dean, Student Personnel Services

**PROFESSORS EMERITI**

**Joseph T. Allen** (1954-1984) ..... Geology

**H. D. Anderson** (1946-1978) ..... Foreign Language

**Roger C. Anton** (1946-1976) ..... President  
Named Professor Emeritus (posthumously) by the Board of  
Trustees, June 3, 1977.

**George Ashton** (1957-1978) ..... History

**Olen Baggett** (1965-1986) ..... Physical Education

**James G. Bisi** (1968-1997) ..... Counseling

**Doris Boardman** (1961-1982) ..... Library

**Josephine E. Broholm** (1947-1975) ..... Speech

**Clifford Cabanilla** (1972-2002) ..... Theatre Arts

**Marian T. Carter** (1970-1993) ..... Speech

**Edward L. Chapin, Jr.** (1953-1987) .. Assistant Dean, Continuing  
Education and Community Services

**Gordon A. Clopine** (1961-1997) ..... Geology

**Jay C. Edwards** (1982-1997) ..... Computer & Information  
Sciences

**Robert T. Galbraith** (1972-1999) ..... Biology/  
Oceanography

**Richard H. Gatchel** (1971-1987) .. Philosophy/Religious Studies

**Virginia M. Gustad** (1970-1987) ..... Office Administration

**Luis S. Gomez** (1976-2000) ..... President

**Kenneth L. Grub** (1965-1982) ..... History

**William H. Hoyt** (1955-1987) ..... Physical Education

**Eugene V. Kadow** (1966-1995) ..... Economics

**Francis J. Kling** (1965-1992) ..... Sociology

**Clarence D. Lambert** (1965-1987) ..... Chemistry

**Arthur F. Miller** (1974-1989) ..... Psychology

**Violet Neuman** (1976-1997) ..... Counseling

**Harold B. Pigott** (1946-1975) ..... English

**Sylvester L. Patrick** (1964-1987) ..... Counseling

**Walter C. Schuiling** (1964-1984) ..... History and Politics

**V. Dean Stewart** (1950-1981) ..... Chemistry

**Linda P. Tung** (1972-2001) ..... Mathematics

**Donald R. Wirz** (1972-1999) ..... Chemistry

**William R. Wright** (1977-1999) ..... Work Experience

**Classified Employees**

**ALBRIGHT, Gavan**  
Laboratory Technician, Science

**AYCOCK, Larry**  
Admissions/Registration & Records, Clerk I

**AZELTON, Jim**  
Golf Course/Tennis Court Attendant

**BALTZ, Stephen P.**  
Custodial & Warehouse Supervisor

**BARABANI, Gino**  
Departmental Network Specialist

**BEDOYA, Michael**  
Art Assistant

**BELL, Eva**  
Student Services Technician II/Special Svcs. Coordinator Asst.

**BENJAMIN, Veda**  
Admissions/Registration & Records, Clerk I

**BIDNEY, Cynthia**  
Secretary I, Workforce & Economic Development

**BINGHAM, Kelly**  
Administrative Assistant I, Instruction Office

**BIRD, Wanda**  
Food Service Specialist

**BLANTON, Reed**  
Bookstore Assistant I

**BOATMAN, John**  
Grounds Caretaker II

**BOGH, Wayne**  
Enterprise Network Specialist

**BREAZILE, Sue**  
Secretary I, Fire Science

**BRISENO, Humberto S.**  
Grounds Caretaker II

**BROWN, Barbara**  
Bookstore Assistant I

**BRUNER-JONES, Sherri**  
Clerical Assistant II, Teaching Aids

**BRYSON, Richard**  
Custodian/Delivery Driver

**BURNHAM, Janet**  
Teaching Assistant, Reading/Study Skills

**BURNS, Carole A.**  
Laboratory Technician, Microbiology

**CALDERON, Gene**  
Golf Course/Tennis Court Attendant

**CAO, Truc**  
Custodian I

**CARRILLO, Antonio**  
Grounds, Caretaker II

**COLE, Judith**  
Learning Resource Assistant

**COLE, Michelle**  
Office Assistant, Student Center

**COVINO, Darryl J.**  
Grounds Supervisor

**COX, Cheryl**  
Administrative Assistant II, President's Office

**COX, Gerard**  
Cafeteria Manager

**CROOKS, Beth**  
Account Clerk I, Campus Business Office

**CROOKS, Jeremy**  
Custodian Delivery Driver

**DELA FUENTE, Norma**  
Food Service Worker I

**DIEHL, Carol**  
Book Buyer

**EDWARDS, Leroy**  
Maintenance Person

**FERNANDEZ, Adriana**  
Child Development Specialist

**FUENTES, Gloria**  
Secretary I, Research & Planning

**FURTADO, Trudy**  
Account Clerk II, Campus Business Office

**GARCIA, Stacy**  
Secretary I, Emergency Medical Services

**GIMPLE, Tina**  
Instructional Assessment Tech., DSP&S

**GONZALES, Moises**  
Custodian I

**GONZALES, Sarah**  
Child Development Specialist

**HEEMSTRA, Diana K.**  
Bookstore Manager

**HERNANDEZ, Pat**  
Child Development Specialist

**HILL, Curtis**  
College Police Officer

**HOLMON, Yolanda**  
Child Development Assistant

**HYDORN, Beverly A.**  
Secretary III, Instructional Services

**IRGANG, Peggy**  
Food Service Worker I

**JAURE, Lucy**  
Secretary II, Counseling

**JIMENEZ, Susan**  
Secretary I, Health Services

**JOHLE, Christina**  
Child Development Specialist

**JOHNSTON, Dennis**  
College Police Supervisor

**KARR, Deborah**  
Admissions/Registrations & Records Clerk II

**KIRKHART, Patrick M.**  
Grounds Caretaker II

**KIRKHART, Richard**  
Grounds Caretaker II

**LABAGNARA, Kathleen**  
Admissions/Registration & Records, Coordinator

**LEONARD, Candace**  
Secretary I, Child Development

**LITVINOFF, Linda**  
Secretary I, Respiratory Care

**LOFTON, Clemit**  
Custodian I

**LOVINGFOSS, Stanley W.**  
Laboratory Technician, Physics & Astronomy

**MACON, Clifford**  
Maintenance Person

**MALDONADO, Carlos**  
Student Services Technician II/Special Svcs. Coord. Asst.

**McINTOSH, Cheryl**  
Secretary I, Campus Police

**MECHIKOFF, Carmen**  
Library Technical Assistant II

**MILLER, Greg**  
Laboratory Technician, Chemistry

**MOLNAR, David**  
Laboratory Technician, Biology

**MORABITO, Elizabeth**  
Secretary III, EOPS/CARE/CalWORKs

**MORENO, Joe**  
Maintenance Person

**MORENO, Laurie**  
Bookstore Customer Service Assistant

**MOYA, Tanya**  
EOPS/CARE Program Assistant

**NAPOLITANO, John**  
College Police Officer

**NGUYEN, Ben**  
Custodian I

**NGUYEN, Long**  
Custodian I

**OLMOS, Jose G.**  
Maintenance Person

**ORTA, Rebecca**  
Student Services Technician II/Special Svcs. Coord. Asst.

**PETERSON, Cynthia**  
Clerical Assistant II, Financial Aid

**PIERCE, Leah**  
Instructional/Assessment Technician, Mathematics

**REA, Marty**  
Food Service Specialist I

**RECORD, Laura F.**  
Administrative Assistant I, Student Services

**REGALADO, Arnold**  
Storekeeper II

**ROBERTS, Sandra**  
Financial Aid Specialist I

**SAENZ, Patricia**  
Clerical Assistant II, Teaching Aids

**SANFORD, Ervin C.**  
Custodian I

**SOSA, Paul E., Jr.**  
Custodian I

**SOUSA, Juana**  
Financial Aid Coordinator

**SOUTHERLAND, Frances**  
Assessment Technician

**STARR, Amy**  
Child Development Assistant

**STEWARD, Gwenn**  
Senior Account Clerk, Campus Business Office

**SUFFICOOL, Nicole**  
Switchboard Operator

**SUTHERLAND, S. Gary**  
Theatre Technician

**TOWNSEND, Jonathan**  
Instructional/Assessment Technician, English

**TAFOYA-CAMARENA, Patricia**

Campus Police

**TRAILL, Laural E.**

Learning Resources Assistant

**TROST, Susan**

Instructional/Assessment Technician, Learning Disabilities

**VELONI, Shane**

Instructional Media Technician

**VIEIRA, Ezequias**

Custodian II

**VILLESCUSA, Diane**

Child Development Specialist

**WAGNER, June**

Admissions/Registration Clerk I

**WEISCHADLE, Betty**

Teaching Assistant, Reading Skills

**WILLIAMS, Barbara**

Program Assistant, Disabled Student Services

**WILLIAMS, Miriam**

Office Assistant, Student Center

**WINGLER, Jacquelyn**

Clerical Assistant II, Campus Business Office

**CalWORKs Workforce Training  
Advisory Committee**

Bidney, Cindi

Crafton Hills College Workforce &amp; Economic Development Department

Bogh, Debbie

Redlands Adult School

Bordelon, Cheryl

Redlands Adult School

Chavira, Rejoice

Crafton Hills College  
EOPS/CARE/CalWORKs

Colvey, Kirsten

Crafton Hills College  
Dean of Student Services

Contreras, Alex

Crafton Hills College  
Vice President of Student Services

Ferracone, Donna

Crafton Hills College  
Dean of Program Development

Giacona, Judy

Crafton Hills College  
Health Services Department Coordinator

Gimple, Tina

Crafton Hills College  
Disabled Student Program & Services Department

Griffin, Becky

San Bernardino County JESD

Griswold, Tom

State of California EDD

Harrison, Gloria

Crafton Hills College  
President

Holmlund, Linda

Redlands GAIN

Houston, Stephanie

Redlands ROP

Jones, JoAnn

Crafton Hills College  
Child Development & Education Department  
Faculty

Licerio, Marty

Crafton Hills College  
Disabled Student Program & Services Department Coordinator

Likens, Mike

Yucaipa/Calimesa School District

Likens, Christine

Craig &amp; Sons Termite &amp; Pest Control

Lynch, Juliette

San Bernardino County Superintendent of Schools

Matthews, Damaris

Crafton Hills College  
Learning Resource Center Coordinator

May, Adrian

Crafton Hills College Student

McCormick, Kim  
 Crafton Hills College  
 Work Experience  
 Faculty

Morabito, Beth  
 Crafton Hills College  
 EOPS/CARE/CalWORKs

Moran, Ginny  
 Crafton Hills College  
 Research and Planning Department Director

Moreno, Serena  
 San Bernardino County Superintendent of Schools

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# challenges



# opportunity

