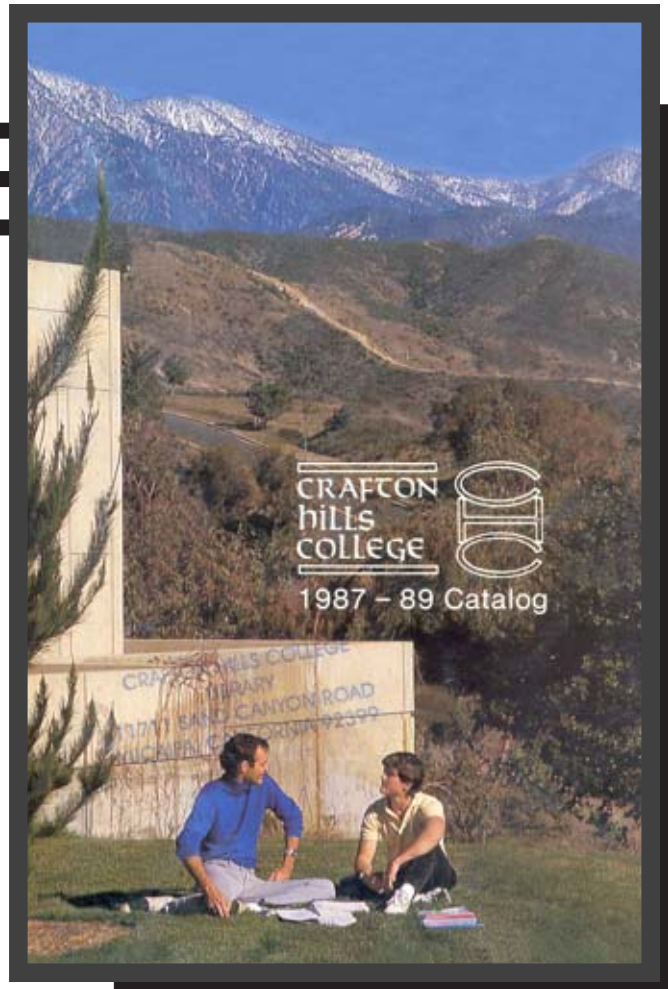

Crafton Hills College

1987-1989 Catalog

CollegeSource

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The purpose of this catalog is to provide information about Crafton Hills College: its philosophy, objectives, program and course descriptions, policies, and regulations. 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.

All photographs in this publication are by Steve Walag.

CRAFTON HILLS COLLEGE

A Public Community College in California

Catalog 1987-89

Accredited by the Western Association of Schools and Colleges

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SECTION I
GENERAL INFORMATION

ABOUT THE COLLEGE

Located on 513 acres in the Crafton Hills, the College is situated on a hilltop and is a quiet blend of functional buildings and attractive landscape. The atmosphere of the College is one of serenity - right for reflection, for growth, for learning.

In addition to student-centered classes and an able counseling and career guidance staff, Crafton Hills College provides a variety of cultural, social, and recreational opportunities. Band, orchestra, choir, jazz groups, theatre, and a varied lecture series add diversity to the student's experience at Crafton Hills College. Student activities are available to those who are interested. The campus is proud of its six-hole golf course. Two exercise rooms and a jogging trail attract fitness buffs. Students may participate in intercollegiate athletics through San Bernardino Valley College while enrolled at Crafton Hills College.

Crafton Hills College is above all a place for learning and personal growth. People of all ages, interests and backgrounds take advantage of course offerings from early morning through late evening. The College has established a reputation for quality and a willingness to respond quickly and reasonably to community needs.

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, coeducational 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. Today, the campus buildings and grounds are complete and provide an environment essential to support a comprehensive community college.

The area from which the College generally attracts students includes 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 from foreign countries. And 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 leave to transfer to four-year colleges and universities or to go to work.

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

EDUCATIONAL PHILOSOPHY

Crafton Hills College is dedicated to the worth and dignity of each individual and attempts to provide an environment for personal interaction and achievement. Crafton Hills College accepts its responsibility as an equal partner in the system of higher education in California.

The College strives to provide equal opportunities for an education commensurate with individual abilities, interests, goals, and needs. Our conviction reflects, encourages, and promotes the ideals of American life, free and critical thinking, qualitative accomplishment through the maintenance of high but fair standards, mutual exchange between community and college, cultivation of ethical values and attitudes toward our society. Responsible leadership seeks responsive expression through a strong faculty, integrating learning experiences and skills with insight and understanding of knowledge as a whole.

OBJECTIVES AND FUNCTIONS

The principal objective of Crafton Hills College is to facilitate students' learning so that 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 for themselves, 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 preprofessional curricula for transfer to senior universities, applicable toward the baccalaureate degree;
2. General education which provides a fundamental learning foundation and stimulates intellectual curiosity;
3. Occupational programs for entry into specific vocations and further training for increased occupational effectiveness while pursuing a vocation;
4. Continuing education for citizens in the community who may desire further preparation in general education, or in a vocational field;
5. Remedial programs in fundamental skills for increased effectiveness in pursuing the basic objectives of the College;
6. Advising and counseling for educational, occupational, and personal planning; and
7. Community services which encourage the residents of the community to use college resources for cultural and recreational activities.

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.

HIGH SCHOOL STUDENTS

Crafton Hills College will admit special part-time high school students capable of profiting from the college instructional programs. To be eligible, a special part-time student must be in either grade 11 or 12, or a student who has completed the tenth grade and wants to attend a summer session, and whose admission is recommended by the high school principal. (ECS 76000)

Special part-time high school students are expected to conform to both the high school and college calendars for attendance days. In assuming regular college student status, students will be expected to provide their own instructional supplies, texts, and transportation.

High school students will receive college credit for all classes completed. Grade reports are not mailed; they must be picked up in person at the College Records Office.

K - 10th GRADE STUDENTS

Students in grades K through 10 may enroll in college-level courses provided they meet the following conditions for admission and there is available classroom space:

1. May be admitted and enrolled for advanced scholastic or vocational course work upon written certification of the principal of the school the student attends, or attended, and parental consent.
2. The Special Student Attendance Form, the student transcript or cumulative grade record, and the College Application for Admission form are all required for EACH SEMESTER of attendance.

Students are expected to conform to the calendars of both the college and their school of attendance. Students will be expected to provide their own instructional supplies, texts, and transportation.

K-10th grade students will receive college credit for all classes completed. Grade reports are not mailed; they must be picked up in person at the College Records Office.

HOW TO APPLY

First-time applicants to Crafton Hills College should follow these steps:

1. Obtain, fill out, and turn in an official application form.
2. Make a registration/advisement appointment at the Admissions and Records Office.
3. Submit official transcripts if you want credit for courses taken at another college or if you are applying for veterans' benefits.
4. Take placement examinations if appropriate. Placement examinations are required for entrance into the Paramedic Program and the Respiratory Care Program. An English placement examination is required if you want to take English 101. A placement examination is also required if you want to take a computer science course higher than level 101.

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 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 made 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 opening day of instruction of the semester, or other session as set by the Board of Trustees. A student previously classified as a nonresident may be 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. Minor - those persons under 18 years of age may establish residence in accordance with the following:

1. Married minors may establish their own residence.
2. The residence of the father during his life, and, after his death the residence of the mother, while she remains unmarried, is the residence of the unmarried minor child.
3. If the parents are separated permanently, the residence of the minor is the , residence of the parent with whom he/she lives.
4. If both parents are deceased, and there is no court-appointed guardian, the minor may establish hidher own residence.
5. A student who remains in the state after his/her parents, who had legal residence in California, have established 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.
6. 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.

EXCEPTIONS TO RESIDENCE DETERMINATION

A. A student who is a member of the armed forces of the United States, on active duty stationed in this state, except a member of the armed forces assigned for educational purposes, shall be entitled to resident classification until he/she has resided in the state the minimum time necessary to become a resident.

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 classification until the student had 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 classification until he/she has resided in the state the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

C. A student who is an adult alien will be entitled to resident classification 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 classification 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 that 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 classification 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 residence classification.

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 classification until he/she has resided in the state the minimum time necessary to become a resident.

FINANCIAL INDEPENDENCE

The California Legislature has passed an amendment to California Education Code Section 68044, effective July 1, 1981, which requires consideration of the factor of financial independence for students classified as nonresidents seeking reclassification as residents. This is in addition to the other existing requirements necessary for a residence classification.

In order to establish financial independence, a student seeking reclassification must meet the following criteria for the current and immediately preceding three calendar years:

1. That the student has not been claimed as an exemption for state and federal tax purposes by his or her nonresident parents;
2. That the student has not received more than $800 from his or her nonresident parents; and
3. That the student has not lived in the home of his or her nonresident parents for more than six weeks in any given year.

Failure to satisfy all of the financial independence criteria for the entire period will not necessarily result in a denial of residence status if the durational requirement is met and a showing of intent is sufficiently strong. Financial independence is of greater significance for the current and immediately preceding calendar year. Failure to satisfy all three of the financial independence criteria for the current and immediately preceding calendar year will normally result in a determination of nonresidence. Only if such a student can demonstrate that there exists (1) no indication of continuing residence in another state, or (2) if the student is dependent on a California resident, could such a student be reclassified as a resident. Financial independence, or want of it, for the second and third calendar years immediately preceding the year in which reclassification is requested will be considered together with all other relevant factors in determining intent, with no special weight attached to the financial independence factor.

Students must petition in person at the Admissions Office for a change of classification from nonresident to resident status. Students should be prepared to provide appropriate written documentation in support of their request for reclassification status.

RESIDENCE CLASSIFICATION APPEAL

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

COSTS

See class schedule for fees and other costs. If you are not a legal resident of California, you must pay the current non-resident tuition fees.

RESIDENCE DETERMINATION

Students shall be required to present evidence of physical presence in California, intent to make California their home for other than a temporary purpose, and, if the student was classified as a nonresident in the preceding term, financial independence. To accomplish this, the following individual information will 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; check date of issuance.
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.

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:

July 1	for Fall Semester
December 1	for Spring Semester
April 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. TOEFL Test Score (not required of students from a country where the native language is English). 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 each past school, verifying character, background, and ability, must accompany the transcripts.
4. Official documentation of birthdate. No international students under eighteen years of age will be admitted.
5. A recent photograph. Photocopies are not acceptable.
6. Verification of a recent chest x-ray or skin test which indicates a negative tuberculosis test.
   Note: X-ray or skin test must be done in the United States. The result must be on file with the college before the student may attend classes.

After evaluation of items 1-5 above, applicants who are accepted will be mailed the current I.N.S. 1-20 form for attendance at Crafton Hills College only. The following rules apply to international students at Crafton Hills College:

1. You must be in the local area no later than August 15 for Fall Semester and January 15 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. You must report to the Student Services office at the College when you arrive in the area. The counseling and registration procedure will be explained at that time.
4. You must pay all required tuition 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.

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.

COUNSELING

The College offers you a complete counseling service. If you are having problems deciding on a career or planning your program of study, check with the counselors. In addition to being highly trained, they have access to a wide assortment of resources such as achievement, aptitude, and interest tests and professionally prepared career guidance materials. Any information you share with a counselor will be confidential.

Each semester, the counselors offer a required orientation course for new day students. In it you will learn about all aspects of the college community and you will be guided and encouraged to accept responsibility for your academic and career decisions. Most importantly, you should leave the course with positive feelings about college life.

CAREER PLANNING AND JOB PLACEMENT

The Counseling and Career Center provides a career planning and job placement service. Through this service you can participate in career exploration and learn how to conduct a job search, including application preparation, resume' writing, and interviewing techniques. You will be assisted by trained personnel who are knowledgeable about current labor market information.

FINANCIAL AID

If you need financial aid, check with the Financial Aids Office. Many students receive help through direct grants, loans, and on-campus jobs.

To find out about your eligibility for financial aid, you must fill out a California Student Aid Application and submit it to the College Scholarship Service for evaluation. Financial aid personnel will help you with the form. Make an appointment to do this as soon as you have decided to attend Crafton Hills College.

Listed below are some sources of financial aid.

- Pell Grant
- Bureau of Indian Affairs Grant (BIA)
- College Opportunity Grant (COG)
- College Work Study (CWS)
- Extended Opportunity Program (EOP)
- California Government Student Loan (CGSL)
- National Direct Student Loans (NDSL)
- Supplemental Educational Opportunity Grant (SEOG)

Since financial aid opportunities and regulations change periodically, you should check with the Financial Aids Office each semester, regardless of how successful you were in obtaining aid in the past.

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. Compliance with regulations demands that certain materials be submitted to the Office of Admissions before you can be certified. They are:

1. Official transcripts from all high schools and colleges you have attended;
2. A completed application for admission;
3. A copy of your latest DD-214 for initial enrollment;
4. A Veterans Enrollment Card signed by a Crafton Hills College counselor indicating that you have received help in developing your career plans and program of study.

Please attend to these matters as soon as possible, as it often takes six to eight weeks for the Veterans Administration to process your request.

HOUSING

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

HEALTH SERVICES

College nurses are on duty to provide you with emergency health care. In addition, they provide physical and emotional assessment, screening and referral to appropriate local agencies, health education and counseling, nursing intervention, limited treatment, and student insurance.

Further, videotapes on various health issues are also available in Health Services, Gym 103, as are filmstrips for private viewing regarding personal subjects.

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 Affairs Office, SS Room 306, for details.

DISABLED STUDENT SERVICES

If you are disabled and want help, get in touch with the people at the Disabled Student Services Center. They are committed to providing aid to those with physical, communication, or learning problems so that the disabled may be integrated into the mainstream of the College.

Support services are provided as appropriate. Examples are priority registration, special parking, tram service, notetakers, interpreters for the deaf, and tutors. In addition,

specialized counseling, career and program guidance, and community liaison activities are available.

EXTENDED OPPORTUNITIES PROGRAMS AND SERVICES (EOPS)

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, personal and academic counseling, and financial aid assistance to cover the cost of books and other college related expenditures. Crafton Hills College admits, without examination, 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. Students whose annual family income is less than $12,000 for a family of four are eligible for E.O.P.S.

To apply for the program, just write the E.O.P.S. office, Crafton Hills College, 11711 Sand Canyon Road, Yucaipa, California 92399, or telephone (714) 794-2161, extension 215.

STUDENT ACTIVITIES

ASSOCIATED STUDENT BODY

The Associated Student Body is recognized by the San Bernardino Community College District Board of Trustees and the administration of Crafton Hills College as the official student organization; membership is open to all students. Many of the student activities and special programs on campus are services provided through the sale of Associated Student Body cards. Consult with the Student Affairs Office, SS Room 306, for details.

GOVERNMENT

The governing body of the Associated Student Body is the Student Central Council. The Council supervises all student activities and budgets student funds. Officers are elected for one-year terms.

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.

INSTRUCTIONAL PROGRAMS AND SERVICES

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

TRANSFER PROGRAMS

You can take a program of lower division studies at Crafton Hills College which will qualify you tor junior standing at most four-year colleges and universities in the United States. Since the specific requirements of different institutions vary so widely, however, 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 V, Transfer Institutions - General Requirements, for more specific information.

OCCUPATIONAL PROGRAMS

Crafton Hills College offers you 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 expertise attained. For listings and descriptions of specific programs, see Section III, Transfer and Associate Degree Programs, and Section IV, Occupational Certificate Programs.

GENERAL EDUCATION

Crafton Hills College faculty and administration believe that one important service the College can provide to citizens of the community is the opportunity to gain a general education. The rich variety of courses offered at Crafton Hills College provides this opportunity for you to obtain a broad educational background regardless of your special interests.

CONTINUING EDUCATION

The Continuing Education Program at Crafton Hills College offers classes during the evening hours and on Saturdays. Evening hours and Saturdays make it possible for people 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, work towards an associate degree, or engage in studies which offer personal development and enrichment.

The Continuing Education Program is an integral part of the total College offering. Therefore, many College courses are offered day and evening. However, the curriculum of the Continuing Education Program does not in each case duplicate that of the Day College. A different philosophy and different procedures are employed when appropriate to meet the special needs of continuing education students.

DEVELOPMENTAL EDUCATION

Crafton Hills College offers students the opportunity to upgrade their skills through programs in the Learning Resource Center and through special classes in English and mathematics. If you need to improve your skills in reading, writing, and/or arithmetic, you should, with the help of a counselor, plan a program of skills improvement.

COMMUNITY SERVICES

The Community Services Office provides special interest short courses, lecture series, tours abroad and seminars to members of the community.

INSTRUCTIONAL BROADCASTING SERVICES/ TELEVISION

Crafton Hills College regularly participates in the San Bernardino Community College District Instructional Broadcasting Services (IBS). Each semester and summer session, selected courses are offered for credit via Instructional Television. Students enroll in these IBS courses at normal registration times or through special available mail-in procedures, attend on-campus orientation meetings, discussion sessions, and special lectures. They also participate in on-campus examinations, but the majority of the course activity is engaged in at home, in the office, or 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 to complement the TV lectures.

The District's public television station, KVCR-TV, Channel 24, is the primary broadcast outlet for these courses. However. many are also seen at special times on commercial and public broadcasting channels from Los Angeles. Anyone wanting additional information about upcoming courses or specific details about current offerings is invited to telephone the Office of Instructional Broadcasting Services at (714) 888-6511 or (714) 825-3104, Extension 131.

CULTURAL ACTIVITIES

The music and theatre departments at Crafton Hills College produce various cultural events throughout the year in addition to those provided by Community Services. There are programs of choral music, programs of instrumental music, and a series of plays, all presented in the Performing Arts Center of Crafton Hills College and all open to the public. In the summer, the Crafton Hills College theatre and music departments collaborate with the Friends of Prospect Park to produce The Redlands Theatre Festival, a series of plays in the spectacular Prospect Park open air theatre in Redlands.

WORK EXPERIENCE EDUCATION

Through its work experience program, the College makes it possible for you to earn college credit for employment or activities in a business or industry related to your occupational goals. Over four semesters, you may earn up to sixteen units that can be applied toward graduation, certificate requirements, and Veterans' Education Benefits,

To be eligible for the program, you must be employed fifteen hours per week during the regular semester and thirty hours per week during Summer Session. In addition, during each semester in which you seek work experience credit, you must enroll in a minimum of seven units. Your work experience units are counted as part of the seven.

To participate, during the first week of the semester you must do two things. First, you must meet with the appropriate work experience coordinator to design your program. Second, you must already have, or find, a job related to your occupational goals. (While the coordinator will assist you, locating a job is primarily your responsibility.)

Work experience education is now offered in most occupational areas. Where available, course descriptions may be found after 098 and 099 course numbers.

SUPPORT SERVICES

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

The Library: Crafton Hills has one of the finest community college libraries in the state for a college of its size. Located at the center of the campus, the Library supports the teaching program of the college with more than 51,000 volumes plus 6,900 bound periodicals.

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 who may need to use the resources of other academic libraries in the area; these cards allow students easy access to twenty other libraries throughout the Southland.

The Learning Resource Center: Various types of services are provided for students and faculty members through the Learning Resource Center, located on the second floor of the Library building. Classes in reading and study skills are held in this facility; tutorial services are provided here; and the language laboratory is housed in the Center. In addition, the Learning Resource Center houses, maintains, and distributes audiovisual equipment, copies audio tapes for students and faculty, and provides tapes of TV courses for students to watch.

Students with special needs are encouraged to meet with the Director of the Learning Resource Center to discuss the desirability of setting up a remedial program.

The Bookstore: Textbooks and supplies are sold at the College Bookstore. For most of the academic year the Bookstore is open 7:45 a.m.-6:30 p.m. Monday-Thursday and 7:45 a.m.-4:00 p.m. Friday. However, at the beginning of each academic term the Bookstore also maintains additional hours for a short period of time. Check with the Switchboard for specific hours.

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 that 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.

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, 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 which you allege. 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 six units of 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.

UNIT OF CREDIT

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 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 and upon the completion of an appropriate examination, 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 Dean.

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 basis. However, if you have completed courses for Credit ("CR") and subsequently declared a niajor in that course of study, the rule may be waived.

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

INCOMPLETES

You must make up an "1" (Incomplete) no later than one year following the end of the academic term in which it was assigned. The condition for removal of the "I" and the grade to be assigned in lieu of its removal shall be stated by the instructor in a written record. The procedure for handling the notification of an Incomplete is as follows:

> The Records Office will provide the instructor a form in triplicate. On this form the instructor will state what the student must do to complete the course and what grade the student will receive if left incomplete. The Records Office will notify the student of the Incomplete and keep a copy of the form on file. The instructor will keep a copy of the form on file.

WITHDRAWAL FROM CLASSES OR FROM THE COLLEGE

If you withdraw prior to the end of the 3rd week (or 30% of a term. whichever is sooner), no entry will be made on your record.

If you withdraw between the first and second census periods, no record need be made if there are extenuating circumstances. If there are no extenuating circumstances, the non-evaluative "W" is recorded on your transcript to indicate "Withdrawal."

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 submitting evidence of extensive background and/or experience in a subject area and feeling that their knowledge of the area is equivalent to the course content of a currently approved course may make application for course credit by examination. To apply, you must have completed twelve (12) or more units at the College where the application is made or be a permanent employee of the San Bernardino Community College District and must submit to the Instruction Office a fully completed and signed application for Credit by Examination for each course requested. Approval of a full-time instructor is required. Applications may be secured in the Admissions and Records Office.

Credit by examination for foreign language courses will be granted only to students who take the next higher language course while in residence, and only with the approval of the appropriate foreign language instructor.

Students over 18 years of age will be charged a fee in accordance with Board Policy 6050.

Upon approval of the application by the Dean of Instruction and payment of any necessary fees, approval will be forwarded to appropriate instructors to administer examinations and submit grades. Grades will be consistent with the grading system established by the College and will be submitted to the Admissions and Records Office by the end of the semester or summer session in which the examination is completed.

The student's academic record shall be clearly annotated to reflect that credit was earned by examination.

CONCURRENT ENROLLMENT

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

EXAMINATIONS

You are expected to take all examinations given in the courses in which you are enrolled, and you may not be excused from the required examinations of any course, including final examinations. If you are deliberately absent from an examination, you forfeit the right to make up the examination unless you have prior permission from the instructor.

CLASS ATTENDANCE

You are expected to attend classes regularly and on time. If you are ill or 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 unexcused absences. Reinstatement is up to that instructor.

GRADE CHANGES

Instructors are the only ones who can assign grades, and the grades given are final except in cases where mistakes, fraud, bad faith, or incompetency can be proved.

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 satisfactory)	0
NC	No Credit (less than satisfactory)	0

Non-Evaluative

Symbols	Definition	Comments
I	Incomplete	Instructor documentation required; student cannot initiate
W	Withdrawal	Student or instructor drop
IP	In Progress	Issued for classes which continue across semester and/or inter-sessions dates.
RD	Report Delayed	Can only be assigned by the Registrar's Office

STANDARDS FOR PROBATION

A student shall be placed on either Academic Probation or Progress Probation when

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 appropriate scholastic standards committee.
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 "NCs," "Is" and "Ws" in all units in which he/she has been enrolled.

COUNSELING REQUIREMENT

When a student earns a grade point average of less than 1.75 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 (i.e., the fall semester of 1981-82 followed by the fall semester of 1982-83 shall be considered consecutive if the student was not enrolled in the spring semester of 1981-82.)

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 1.75 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 consideration with the appropriate scholastic standards 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

Students are allowed to repeat a course where either standard or substandard academic or skills training performance has been recorded on the student‘s permanent record pursuant to the current grading system, Board Policy 6015.

Courses in which a substandard grade was issued (D, F, NC) may be repeated one time. The units and the grade for the course taken the second time will only be used to compute the GPA and to count for degree or certificate requirements.

Courses in which a standard grade was issued (C, B, A, CR) 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. 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

If you have a record of poor academic performance during one or two semesters, you may petition to eliminate certain units from the computation of your total grade point average. Up to thirty units may be removed from the computation. The units involved must have been completed at least two semesters prior to the semester in which you submit the petition. In addition, if you submit such a petition, you must have since completed twenty-four units of college work with a grade point average of 2.5 or better.

A petition for academic renewal will be granted once only. When the petition is granted, the units involved may not be reinstated.

CODE OF CONDUCT

Students enrolling in Crafton Hills College have a right to expect that the faculty, administrators, and other students will maintain an environment in which there is freedom to learn. This requires that appropriate conditions be maintained in the classroom and on the campus. All Crafton Hills College students are expected to respect and obey civil and

criminal law and to conduct themselves in accordance with the rules of Crafton Hills College, the policies of the San Bernardino Community College District, and the California Education Code. Copies of the Education Code and District Policy are available in the Library. Crafton Hills College regulations are in the Student Handbook, available in the Student Affairs Office.

Violations of regulations, policies, or laws are punishable by probation, suspension, or expulsion from the College.

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.

GRADUATION REQUIREMENTS

ASSOCIATE IN ARTS DEGREE

1. Completion of a minimum of sixty semester units of accredited college work with at least a ”C” (2.0) or better grade point average.
2. Completion of eighteen semester units (a major) in a specific transfer or occupational discipline, or related disciplines, as identified by the college catalog. Students who have not yet selected a major field can graduate as a Liberal Studies major. (See ”Liberal Studies” in Section III of this catalog.)
3. Completion of at least twelve semester units at Crafton Hills College.
4. Demonstrated reading competency at the thirtieth percentile or higher on the Nelson-Denny reading test, or completion of a reading course with a grade of C or higher.
   Note: Students may contact the Learning Resource Center for an appointment to take the Nelson-Denny at any time during the semester. The test takes forty minutes. Students are encouraged to obtain the scores from this test as early as possible in their college careers.
5. Mathematics proficiency demonstrated on a basic mathematics test, or completion of Math 052 or any higher-level mathematics course with a grade of C or better. Math 001 and 052 are not applicable for credit toward Associate Degree. As of July 1, 1988 Math 090 will be required. However, units DO COUNT as student workload units for special enrollments.
6. Writing competency as demonstrated by a grade of “C” or better in English 015 or English 101 or English 144. For English courses numbered lower than 015, units

are not applicable for credit toward Associate Degree.

7. However, they DO COUNT as student workload units for special enrollments.
8. The following restrictions apply to the sixty units required for graduation:
   a. A maximum of four units of physical education activities may be applied.
   b. A maximum of fifteen units of credit (CR) grades may be applied. No course in the student's major or required for that major may be taken for CR.
      Note: Those students who complete a course for credit (CR) and later declare a major in that field may petition to have this rule waived.
   c. A maximum of six units of Reading and Study Skills courses may be applied.
   d. The following courses in any discipline may not satisfy the general education requirements for the Associate Degree: selected topics, selected studies, special problems, special projects, special studies, work experience.
9. Completion of twenty-four semester units of general education courses must be distributed as indicated: three units in category 8a and three to six units in each of 9b, 9c, 9d, and 9e. When only the name of the discipline is listed with no course numbers, all courses in that discipline may be used to meet the general education requirements except those listed in 8d above.
   a. English (3 units): 015, 101, 144
   b. Natural Sciences (3-6 units)
      Anatomy/Physiology
      Astronomy
      Biology (except 155)
      Chemistry
      Geography 110, 114
      Geology
      Microbiology
      Oceanography
      Physics
   c. Humanities (3-6 units) Students must take at least one course from section i.
      i. Art 100, 102, and 105
         English (except 001, 002, 015, 101, 144, 175, 232, 233)
         Foreign Languages
         History 160, 161, 164**
         Interdisciplinary Studies 140,
         Music 100, 120, 121
         Philosophy
         Religious Studies
         Speech 120, 121
         Theatre Arts 100, 108, 109
         **History courses may also be used for Social Science
      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, 105.
         Music: All courses may apply except 100, 120, 121
         Theatre Arts: All courses may apply except 100, 108, 109
   d. Social Science (3-6 units)
      Anthropology
      Economics
      Geography (except 114)
      History***
      Political Science

Psychology (except 055 and 058)
Sociology
***Some courses may also be used for Humanities

e. Communication and Analytical Thinking (3-6 units)
Business Administration 053
Computer and Information Sciences (except 100, 101, 106)
English 015, 101, 144
Mathematics (except 001)
Philosophy 103
Speech 100, 101, 111, 140, 142

Note: No single course may be used to meet more than one general education requirement.

ASSOCIATE IN SCIENCE DEGREE

1. Completion of all requirements for the Associate in Arts degree.
2. A major of at least eighteen semester units in the field of Natural Science*, or in an occupational curriculum.
*A minimum of one life science with lab and one physical science with lab are required.

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 welcome 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 will be placed into a scholarship fund for Crafton Hills College students, with the remaining half being used for operational costs. Membership benefits: Newsletters to keep you informed about campus programs and alumni activities; feature stories about Alumni Association Hall of Fame members; special invitations to Alumni Association members for College sponsored events and receptions; a record system to help you keep in touch with long-lost Crafton Hills College friends; tax deductible dues.

SECTION II
COURSE DESCRIPTIONS

NUMBERING OF COURSES

000-009 Basic skills courses not applicable to the Associate degree.
010-099 Multipurpose courses, sometimes applicable to the Associate degree, not generally applicable to the baccalaureate degree.
100-299 Basic lower division courses applicable to both the Associate and the baccalaureate degrees.

Course Transferability:

All courses numbered 100 through 299 are acceptable for at least elective credit at the California State University (CSU). Courses acceptable at the University of California have UC printed directly beneath the title of the course. If UC is followed by an asterisk, (*) there is a limitation on the credit allowed. For specific details, check with a counselor.

ACCOUNTING

098 Accounting Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week.
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

102 Finance Accounting and Analysis 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Analysis of financial statements; examination of financial documents such as credit reports, Dun and Bradstreet reports, and stock market reports; nonaccounting majors only.

205 Bookkeeping 3 Units
Prerequisite: None.
Lecture: 3 hours per week
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 Accounting 210.)

210 Principles of Accounting 3 Units
UC
Prerequisite: None.
Corequisite: Accounting 211
Lecture: 3 hours per week
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.

211 Principles of Accounting Laboratory 1 Unit
UC
Prerequisite: None.
Corequisite: Accounting 210
Laboratory: 3 hours per week
Laboratory accompaniment to Accounting 210.

220 Principles of Accounting 3 Units
UC
Prerequisite: Accounting 210, 211
Corequisite: Accounting 221
Lecture: 3 hours per week
Development of the basic principles and practices applicable to the general accounting process; application of these concepts in the fields of cost, income tax, stockholder's equity, funds statements and financial statement analysis.

221 Principles of Accounting Laboratory 1 Unit
UC
Prerequisite: Accounting 210, 211
Corequisite: Accounting 220
Laboratory: 3 hours per week
Laboratory accompaniment to Accounting 220.

225 Intermediate Accounting 3 Units
Prerequisite: Accounting 210, 220
Lecture: 3 hours per week
Study of adjustments, working papers, financial statements, cash and receivables, inventories, investments, plant assets, intangibles, liabilities, capital stock and retaining earnings, statement analysis and application of funds.

226 Cost Accounting 4 Units
Prerequisite: Accounting 220, 221
Lecture: 4 hours per week
Objectives and procedures of accounting for manufacturing enterprises; job order and process costing, accounting for manufacturing overhead, joint-product and by-product costing, cost budgeting, standard costs and cost reports.

227 Advanced Accounting 4 Units
Prerequisite: Accounting 220, 221
Lecture: 4 hours per week
Study of problems encountered in accounting for partnerships, joint ventures, consignments, installment sales, home office and branch operations, presentation of consolidated balance sheets, consolidated operating statements and statements of affairs and operation of estate and trusts.

230 State and Federal Income Tax Accounting 4 Units
Prerequisite: None. Accounting 205 and/or Accounting 210 recommended.
Lecture: 3 hours per week and
Loborntoy: 3 hours per week
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.

Special Problems in Accounting

246ABC 1 Unit

247ABC 2 Units

248ABC 3 Units

Prerequisite: Completion of 4 Units in accounting.
Laborntoy: 3 hours per week per unit.
Independent projects for selected students with a special interest in accounting, involving library research, laboratory experiments, and/or field studies.

ADMINISTRATION OF JUSTICE

098 Administration of Justice Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

101 Introduction to Administration of Justice 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Consideration of the history, philosophy, and operation of administration of justice in the United States; theories of crime, punishment, and rehabilitation; ethics, education and training for professionalism in the system.

102 Principles and Procedures of the Justice System 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the roles, responsibilities, and procedures of law enforcement agencies, courts of law, and correctional institutions; examination of their interaction from an historical and contemporary perspective.

103 Concepts of Criminal Law 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of the historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force.

104 Legal Aspects of Evidence 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Examination of the origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.

105 Community Relations 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Exploration of the roles of the administration of justice practitioners and their agencies; development of an awareness of the interrelationships and role expectations among the various agencies and the public; emphasis placed upon the development of positive relationships between members of the system and the public.

106 Principles of Investigation 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the 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
Prerequisite: None.
Lecture: 3 hours per week
Exploration of 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 the justice system.

108 Juvenile Procedures 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the organization, functions and jurisdiction of juvenile agencies, processing and detention of juveniles, juvenile case disposition, juvenile status and court procedures.

ALLIED HEALTH SCIENCES

090 Survey of Radiologic Technology 1.5 Units
Prerequisite: None.
Lecture: 21 hours per semester
Introduction to basic principles and applications of Radiologic Technology and historical development of radiology; orientation to careers in the field.

098 Allied Health Work Experience 1-4 Units
Prerequisite: None.
Prerequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

101 Medical Terminology 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Instruction in terminology used to describe the human body, its functions, its normal state, its abnormal state, the diseases and injuries that affect it, and the various means, agents and procedures employed to prevent, minimize or cure the effects of disease or injury; mastery of fundamental terminology and correct pronunciation and usage of the medical vocabulary. This course is especially appropriate for students intending to enter the health professions.

103 Medical Records Coding I 3 Units
Prerequisite: None.
Lecture: 48 hours per semester
Study of hospital organizational structure and functions, with an orientation to medical records including philosophy. ethics, content, reimbursement emphasis and resource information. The student will also be introduced to Basic Coding techniques, concepts, and guidelines with respect to understanding the format, organization and mechanics of the ICD-9-CM.

104 Medical Records Coding II 3 Units
Prerequisite: AH 103
Lecture: 48 hours per semester
Continuation of technical skills development necessary to gain intermediate level proficiency in medical coding.

105 Medical Records Coding III 3 Units
Prerequisite: AH 104
Lecture: 48 hours per semester
Continuation of the development of the technical skills necessary to provide the student with advanced level proficiency in medical coding.

119ABCD Selected Topics in Allied Health Sciences ½-3 Units
Prerequisite: None.
Lecture: ½-3 hours per week and/or
Laboratory: 1½-9 hours per week
Examination of current information on selected topics in allied health sciences.

210 Introduction to Pathophysiology 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Introduction to the processes and mechanism of human diseases; study of common diagnoses and treatments.

ANATOMY/ PHYSIOLOGY

101 General Anatomy and Physiology 4 Units
Prerequisite: None. High school chemistry or Chemistry 101 recommended.
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Introduction to the basic structures and functions of the human body: the skeletal, circulatory, respiratory, excretory, muscular, digestive, nervous, endocrine, and reproductive systems. This course meets the anatomy and physiology requirement for those seeking a certificate or degree in the emergency medical care, paramedic, respiratory therapy, physical education, and LVN fields.

102 Anatomy and Physiology of the Cardiorespiratory System 3-5 Units
Prerequisite: A&P 101
Lecture: 3-4 hours per week
Laboratory: 0-3 hours per week
Study of the anatomy and physiology of the cardiorespiratory system including the oxygen-carbon dioxide transport system and related areas.

150 Human Anatomy and Physiology 4 Units
UC
Prerequisite: None. High school chemistry or Chemistry 101 recommended.
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Intensive study of the structures and functions of the human body, with emphasis on the skeletal, circulatory, respiratory, and excretory systems.

151 Human Anatomy and Physiology 4 Units
UC
Prerequisite: Anatomy 150
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Intensive study of the structures and functions of the human body, with emphasis on the muscular, digestive, nervous, endocrine, and reproductive systems.

Selected Topics in Anatomy and Physiology 1-4 Units
236ABCD
237ABCD
238ABCD
239ABCD
Prerequisite: None.
Lecture: 1-4 hours per week and/or
Laboratory: 1-4 hours per week
Study of topics of current Interest in Anatomy and Physiology.

247 Special Problems in Anatomy and Physiology 2 Units
Prerequisite: Anat 101 or Anat 150
Laboratory: 6 hours per week
Independent projects for students with a special interest in a particular aspect of anatomy and/or physiology, involving assigned readings and a combination of library and practical research.

ANTHROPOLOGY

100 Introduction to Archeology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to prehistory and culture growth, objectives and methods of modern archeology, 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-hearing animal to the beginning of written history.

102 Cultural Anthropology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to the nature of culture through a survey of the range of cultural phenomena, linguistics, and other related topics.

106 Physical Anthropology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to human biology and evolution, the relationship of men to other primates, the origin and antiquity of man, fossil man, geochronological dating, anthropometry, race classification and racial problems.

246ABCD Special Problems in Anthropology 1 Unit
UC*
Prerequisite: Completion of or concurrent enrollment in another Anthropology class.
Laboratory: 3 hours per week

Practical archeology for selected students, including archeological digging and museum work as these activities are available.

ART

100-102 Art History 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week

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

105 History of 20th Century Art 3 Units
UC
Prerequisite: None. Art 100-102 recommended.
Lecture: 3 hours per week

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

120A Basic Design I 1½-3 Units
1208 Basic Design II 1½-3 Units
120C Basic Design III 1½-3 Units
120D Basic Design IV 1½-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laboratory: 2½-5 hours per week

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.

124A Drawing I 1½-3 Units
124B Drawing II 1½-3 Units
124C Drawing III 1½-3 Units
124D Drawing IV 1½-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laborntoy: 2½-5 hours per week

Progressive investigation and interpretation of form and space, using a variety of media and continuing the theory and application of perspective.

126A Painting I 1½-3 Units
1268 Painting II 1½-3 Units
126C Painting II1 1½-3 Units
126D Painting IV 1½-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laboratory: 2½-5 hours per week

Painting in watercolor and oils; still life, landscape, and figure painting.

132A Life Drawing I 1½-3 Units
132B Life Drawing II 1½-3 Units
132C Life Drawing III 1½-3 Units
132D Life Drawing IV 1½-3 Units
UC
Prerequisite: None. Courses must he taken in sequence.
Lecture: ½-1 hour per week and
Laboratory: 2½-5 hours per week

Progressive study of the functional qualities of the human figure, including an overview of anatomy in relation to figure drawing; graphic interpretations of the human figure, including contour, gesture, and volume drawings.

175A Sculpture I 1½-3 Units
175B Sculpture II 1½-3 Units
175C Sculpture III 1½-3 Units
175D Sculpture IV 1½-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laborntoy: 2½-5 hours per week

Progressive exploration in form and space, using stone, wood, clay, and plaster, development of skills in using the tools required for carving and life modeling methods typically employed in these media.

Special Projects in Art

246 1 Unit
247ABCD 2 Units
248 3 Units
249 4 Units
UC*
Prerequisite: Completion of or concurrent enrollment in an art course.

Laboratory: 3 hours per week per unit.
Independent study for selected students in any area of art, with projects determined jointly by student and instructor.

275ABCD Contemporary Sculpture Technique 3 Units
Prerequisite: Art 175D. Courses must be taken in sequence.
Lecture: 1 hour per week and
Laboratory: 5 hours per week
Exploration of the use of contemporary tools and equipment necessary to execute stone sculptures in the environment of a working artist's studio.

200ABCD Printmaking 1½-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: 1 hour per week and
Laboratory: 5 hours per week.
Focus on techniques and skills of printmaking. Areas to he covered: linoleum, woodcuts, silk screening and stenciling.

ASTRONOMY

050-051 Astrophotography 1 Unit
052-053
Prerequisite: None. Courses must be taken in sequence.
Laborntoy: 3 hours per week
Operation and use of the telescope in photographing the moon, planets, the sun, nebulae, star groups, etc.

133 Frontiers in Astronomy ½-4 Units
UC
Prerequisite: None.
Lecture: 16 hours per unit and
Laboratory: 48 hours per unit per semester
Lecture and field study of the most recent developments in astronomy with class activities conducted on campus or at field sites. Addressed to the examination of the origin and nature of the universe, its component parts and the methods of their exploration.

150 Introductory Astronomy 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to the broad principles underlying the behavior of cosmic forces, man's place in the universe, the historical role of astronomy, and the processes which shape the universe.

160 Astronomy Laboratory 1 Unit
UC
Prerequisite or Corequisite: Astronomy 150
Laboratory: 3 hours per week
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.

175ABCD Selected Topics in Astronomy 1-3 Units
UC*
Prerequisite; To be determined by course topic.
Lecture: 1-3 hours per week and
Laboratory: 3-9 hours per week
Current information on selected topics in astronomy.

Special Problems in Astronomy
246AB 1 Unit
247AB 2 Units
UC*
Prerequisite: Astronomy 160
Lecture: 3-6 hours per week
Laboratory projects designed for students with a special interest in astronomy.

BIOLOGY

100 General Biology 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and
Laborntoy: 3 hours per week
Study of the biological principles involved in cellular biology, human physiology, animal and plant diversity, genetics, evolution, and ecology, including field trips to areas of biological interest. Designed for students not majoring in biology.

122 Marine Biology 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Survey of the major areas of marine biology, including plant and animal groups, coastal and deep water ecology, food webs, aquaculture, marine pollution, and conservation.

123 Ecology and Environment 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the basic concepts of ecology, including energy flow in ecosystems, predation, symbiosis, population biology, local biological communities, the human population explosion, and environmental topics, including air and water pollution, nuclear reactors, pesticides, and solid waste. Legal, political, and economic solutions to problems are also considered.

127-128 Subtidal Marine Biology 2 Units
129
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 16 hours per semester
Laboratory and Field work: 32 hours per semester
Survey of the major groups of plants and animals in the water of the nearshore areas and offshore islands of California, with a study of collecting techniques, use of taxonomic keys, and ecological methods.

130 Principles of Biological Science - Zoology 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Introduction to the principles of zoology, including concepts of cell structure and function, gene action and protein synthesis, enzyme functions, genetics at the molecular level, a survey of animal phyla, and vertebrate organ system physiology. Field trips to locations of biological interest. Designed for pre-professional and biological science majors, but open to all interested students. Majo's should also take Biology 131.

131 Principles of Biological Science - Botany 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Introduction to the principles of botany, including concepts of energy exchange in organisms as illustrated by cellular respiration and photosynthesis in green plants, Mendelian and population genetics, natural selection, evolution, ecology, a survey of the plant kingdom, and a study of the physiology of land plants. Field trips to local chaparral, mountain, and desert regions. Designed for pre-professional and biological science majors, but open to all interested students. Majors should also take Biology 130.

150-151 Introduction to Field Biology ½-3
152 Units
Prerequisite: None.
Lecture: 4-16 hours per semester
Laboratory: 12-96 hours per semester
Demonstration and practice of field techniques in biology, including transects, quadrants, collecting methods, taking field notes, and the use of plant and animal identification keys. Study of succession, ecosystems, and population dynamics. Field trips to areas of biological importance.

202 Wildland Ecology 3-4 Units
Prerequisite: None.
Lecture: 3 hours per week
Laboratory: 0-3 hours per week
Examination of major fire susceptible plant ecosystems; studies in wildland plant physiology.

209 Biology of the Hawaiian Islands 3 Units
UC
Prerequisite: A college course in Biological Science with a grade of "C" or better, or equivalent.
Corequisite: GEOL 209.
Lecture: 16 hours per semester and
Laboratory: 96 hours per semester
Terrestrial and marine biology of the Hawaiian Islands, including tropical rain forests, marine biology and human impact on the ecology of the Islands.

246AB Special Problems in Biology 1 Unit
247AB 2 Units
UC*
Prerequisite: Biology 100
Laboratory: 3-6 hours per week
Independent projects for selected students with a special interest in biology; assigned problems will involve both library and laboratory work.

BUSINESS ADMINISTRATION

053 Applied Business Mathematics 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Basic review of addition, subtraction, multiplication, division, fractions and percentages; 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.

098 Business Administration Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

100 Introduction to Business 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Survey of the business field; provides a background in business and serves as the basic beginning college course in business subjects. Recommended for all business majors.

105 Small Business Management 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the aspects of small business operations, from start up through distribution of goods and services, from producer through middlemen to consumers.

135 Women in Management 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Integration of lecture and discussion of the problems, challenges, and opportunities facing women in managerial positions; study of leadership styles, risk taking, power, and corporate promotions of women.

200 Business Management (Organizational Behavior) 3 Units
Prerequisite: Busad 100 or equivalent.
Lecture: 3 hours per week
Concepts and applications of successful business functions including planning, organizing, controlling, and staffing; current applications examined and evaluated through media support and computer simulation.

217 Business Law 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
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.

230AB Using Microcomputers for Business 3 Units
Prerequisite: Acct 705 or Busad 100 or equivalent. Courses must be taken in sequence.
Lecture: 3 hours per week
Introduction to using microcomputers in business applications. Students will explore software for word processing, spreadsheet, data base management, graphics, and other business applications in hands-on environment.

246AB Special Problems in Business Administration 1 Unit
247AB 2 Units
248AB 3 Units
Prerequisite: Completion of or concurrent enrollment in a business course.
Laboratory: 3 hours per week per unit
Directed research for students with a special interest in any area of business administration.

CHEMISTRY

101 Introductory Chemistry 4 Units
UC*
Prerequisite: One year of high school algebra or Math 090.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Introduction to the principles of chemistry, with emphasis on discoveries, methods of refining, physical and chemical properties, and use of the more common elements and compounds.

102 Introduction to Organic Chemistry 4 Units
UC
Prerequisite: Chemistry 101 or 150.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Introduction to organic chemistry, with emphasis on understanding how and why the basic functional groups in the organic compounds function as they do, and on their application in biological systems. Designed for students who need two semesters of chemistry, including some biochemistry in organic chemistry.

150 General Chemistry 5 Units
UC
Prerequisite: High school chemistry or Chemistry 101.
Lecture: 3 hours per week

Laboratory: 6 hours per week

Introduction to college chemistry, emphasizing the general principles of chemistry and the analysis and solution of problems in chemistry.

151 General Chemistry 5 Units
UC
Prerequisite: Chemistry 150 with a grade of "C" or better.
Lecture: 3 hours per week
Laborntoy: 6 hours per week

Continuation of Chemistry 150, with special emphasis on the relations among chemical kinetics, thermochemistry and electrochemistry. Applications of these areas of chemistry are demonstrated.

212-213 Organic Chemistry 4 Units
UC
Prerequisite: 150-151 with a grade of "C" or better. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 3 hours per week

Study of carbon compounds, the aliphatic, aromatic, and heterocyclic series, including modern theoretical concepts. Laboratory includes the preparation, identification, and study of the properties of organic compounds.

246 Special Problems in Chemistry 1 Unit
247 2 Units
248 3 Units
UC*
Prerequisite: Chemistry 150
Laboratory: 3 hours per week per unit

Laboratory projects for selected students with a special interest in chemistry. The problem is normally selected by the instructor to tit the student.

COMPUTER AND INFORMATION SCIENCES

098 Computer and Information Sciences Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laborntoy: 5-20 hours per week

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

100 Computer Literacy 1½-3 Units
UC
Prerequisite: None.
Lecture: 1½-3 hours per week

Study of basic computer technology; basic keyboarding; problem solving using microcomputers; practice in the operations and functions of a computer and writing simple programs; examination of social issues; discussion of the creative use of the computer in the home, in business, and in industry.

101 Survey of Data Processing 3 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week

Introduction to the methods, techniques and systems tor manually, mechanically and electronically processing business data.

102 BASIC Language 3 Units
UC
Prerequisite: C&IS 101 or pass placement test.
Lecture: 3 hours per week

Fundamentals of computer programming and problem solving using the BASIC language; writing, running, and debugging programs in the interactive computer system to solve both numerical and nonnumerical problems in various areas of applications.

104 Fortran 77 (Computer Programming)
UC* 3 Units
Prerequisite: C&IS 102.
Lecture: 3 hours per week

Study of Fortran 77 as a language supporting any discipline using computer-mathematical methods; emphasis on business applications.

106 Microcomputers 3 Units
Prerequisite: C&IS 102 or equivalent.
Lecture: 3 hours per week

Study of the organization and programming of small computers, design conventions, microprocessor organization and hardware programs, control units (CPU), interrupt and input/output.

110 PASCAL 3 Units
UC
Prerequisite: C&IS 102 or equivalent.
Lecture: 3 hours per week

Examination of programming concepts, data expressions, and assignments; decisions, syntax and implementation; program design; and program standards.

120 Mini-Computer Concepts, Characteristics, and Components 3 Units
Prerequisite: C&IS 101 or equivalent.
Lecture: 3 hours per week
Introduction to Mini-Computer System concepts by reviewing computer architecture, software and components. Acquaints the student with the terminology and typical applications of mini-computers.

200 Programming Business Applications: COBOL I 3 Units
UC
Prerequisite: C&IS 102 or equivalent.
Lecture: 3 hours per week
Fundamentals of computer logic, flow charting, and documentation techniques; advanced techniques for large scale computing systems. Introduction to COBOL.

201 Programming Business Applications: COBOL II 3 Units
UC
Prerequisite: C&IS 200.
Lecture: 3 hours per week
Continuation of C&IS 200; development of specialized programming techniques.

230 Assembly Language 3 Units
UC
Prerequisite: C&IS 102.
Lecture: 3 hours per week
Study of organization and data structures typical of 6500 Apple assembly language and operating systems, and the knowledge of the inner workings of a computer and the effects of the instruction set on computer design.

236ABCD Selected Topics in Computer and Information Sciences 1-3 Units
UC*
Prerequisite: None.
Lecture: 16-48 hours per semester
Study of the components of modern information processing systems and microcomputer applications.

240 Advanced Programming Techniques 3 Units
UC*
Prerequisites: C&IS 104, 110, 200.
Lecture: 3 hours per week
Study of techniques for establishing the correctness of algorithms, estimating time and storage requirements, including file processing, list processing, data structured programming, and documentation.

250 Numerical Computing 3 Units
UC*
Prerequisite: C&IS 104.
Lecture: 3 hours per week
Survey of computer methods and techniques for solving practical numerical problems and pragmatics, including floating point arithmetic, error analysis, integration, solutions of linear equations, least square and curve fitting, interpolation, infinite sums, interation, and probability.

270 Advanced Integrated Basic Programming 3 Units
UC*
Prerequisite: C&IS 101 or equivalent and C&IS 102 or equivalent.
Lecture: 3 hours per week
Study of mini computer, advanced interactive BASIC programming. Study of AOS/VS Operating System BASIC Language utilities for editing, compiling, testing, and debugging basic programs. Students solve both numerical and non-numerical problems in various application areas.

ECONOMICS

100 Introduction to Economics 3 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week
Survey of the American economy, with emphasis on the development, functioning, and significance of economic institutions; special attention to economic growth, the national debt, inflation, and international economic problems. Designed for non-majors who desire to get economic perspective without intensive or technical investigation. Students majoring in Business Administration or Economics should not enroll in this course.

200 Principles of Economics (Macro) 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to principles of economic analysis, economic institutions and issues of public policy. Macroeconomic analysis focuses on national income analysis, money and banking, and economic stabilization policies.

201 Principles of Economics (Micro) 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Introduction to microeconomic theory. Elaboration of supply and demand analysis. Development of the models of industrial organization and factor pricing.

246 Special Problems in Economics 1 Unit
247 2 Units
UC
Prerequisite: Economics 300 or 201.
Laboratory: 3-6 hours per week

Independent projects for selected students with a special interest in economics, involving library research, laboratory projects, and/or field studies. Results are presented as a term paper and oral interview.

EMERGENCY MEDICAL SERVICES

010ABCD Basic Cardiac Life Support - Provider ¼ Unit
Prerequisite: None.
Lecture: 4 hours per semester
Laboratory: 4 hours per Semester

Instruction in Basic Life Support, Cardiopulmonary Resuscitation, for groups with specific needs, such as policemen, firemen, lifeguards, rescue workers, high-risk industry workers, families of heart patients and others interested in rendering emergency cardiac care.

011ABCD Basic Cardiac Life Support - Provider (Recertification) ⅛ Unit
Prerequisite: EMS 010.
Lecture: 1 hour per semester
Laboratory: 3 hours per semester

Instruction and practice in CPR and obstructed airway skills; should be taken as frequently as every three months by those persons who work with the public but have not needed to use the skill. American Heart Association recertification is required.

012ABCD Basic Cardiac Life Support - Instructor ¼-¾ Unit
Prerequisite: EMS 010.
Lecture: 3-9 hours per semester
Laboratory: 3-9 hours per semester

Review and update of skills and knowledge necessary to perform Cardiopulmonary Resuscitation; techniques of teaching, including practice teaching.

013ABCD Basic Cardiac Life Support - Instructor (Recertification) ¼ Unit
Prerequisite: EMS 013.
Lecture: 3 hours per semester
Laboratory: 3 hours per semester

Provision of updated material for the Basic Life Support instructor; leads to recertification as designated by the American Heart Association.

014ABCD Standard First Aid/Multirnedia - Provider ¼ Unit
Prerequisite: None.
Lecture: 4 hours per semester
Laboratory: 4 hours per semester

Instruction in standard First Aid Course; designed to teach the knowledge and skills that are needed for the emergency care of the injured until a physician arrives, and to create an active interest in the prevention of accidents through the elimination of their causes.

015ABCD Standard First Aid/MuItimedia - Provider (Recertification) ¼ Unit
Prerequisite: EMS 014.
Lecture: 4 hours per semester
Laboratory: 4 hours per semester

Information to update skill and knowledge level on a regular basis as dictated by the American Red Cross.

016ABCD Standard First Aid/Multimedia - Instructor ½ Unit
Prerequisite: EMS 014.
Lecture: 6 hours per semester
Laboratory: 6 hours per semester

Provision of information necessary for development of American Red Cross Standard First Aid and Personal Safety instructor; includes practice teaching and skills sessions to enhance the student's overall knowledge of first aid and emergency care.

017ABCD Advanced First Aid and Emergency Care - Provider 2¼ Units
Prerequisite: None.
Lecture: 32 hours per semester
Laboratory: 16 hours per semester

Instruction to provide advanced first aid and emergency care knowledge and skills.

018ABCD Advanced First Aid and Emergency Care - Provider (Recertification) ½ Unit
Prerequisite: EMS 017.
Lecture: 6 hours per semester

Laboratory: 6 hours per semester
Information to update the Advanced First Aid provider with a knowledge of first aid; opportunity to reinforce skill levels.

019ABCD Advanced First Aid and Emergency Care - Instructor 1 Unit
Prerequisite: EMS 017.
Lecture: 16 hours per semester
Provision of information necessary for development of American Red Cross Advanced First Aid and Emergency Care instructors; includes practice training and skills sessions to enhance the student's overall knowledge of first aid and basic techniques of teaching those skills to the general public.

020ABCD Emergency Medical Technician 1-A 4½ Units
Prerequisite: None.
Lecture: 54 hours per semester
Laboratory: 54 hours per semester
Clinic: 8 hours per semester
Field: 8 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.

021ABCD Emergency Medical Technician IA (Recertification) 1¼ Units
Prerequisite: EMS 020 or EMS 022.
Lecture: 12 hours per semester
Laboratory: 20 hours per semester
Review of all facets of basic life-support measures; cardiopulmonary resuscitation in accord with the standards of the American Heart Association; use of emergency medical equipment and supplies, plus new techniques and materials. Leads to recertification.

022ABCD Emergency Medical Technician I-NA 5 Units
Prerequisite: None.
Lecture: 56 hours per semester
Laboratory: 40 hours per semester
Clinic: 10 hours per semester
Field: 8 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.

023 Cardiology for the Technician 1½ Units
Prerequisite: None.
Lecture: 16 hours per semester
Laboratory: 24 hours per semester
Introduction to basic cardiology; provides the background necessary to function at a technician level.

030 Introduction to Emergency Medical Services - Emergency Medical Technician II ½ Unit
Prerequisite: EMS 050 or equivalent; must be preselected into the EMT-II program.
Corequisite: EMS 031, 032, 033, 034.
Lecture: 8 hours per semester
Introduction to the pre-hospital care system in rural areas.

031 Cardiology for the Emergency Medical Technician II 3 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the EMT-II program.
Corequisite: EMS 030, 032, 033, 034.
Lecture: 48 hours per semester
Study of recognition and treatment of death-dealing arrhythmias, while in voice contact with the hospital.

032 Pharmacology for the Emergency Medical Technician II 2 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the EMT-II program.
Corequisite: EMS 030, 031, 033, 034.
Lecture: 32 hours per semester
Preparation for the safe administration of specific drug groups, while in voice contact with the hospital.

033 EMS Theory for the EMT II 3 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the EMT-II program.
Corequisite: EMS 030, 031, 032, 034.
Lecture: 48 hours per semester
EMS theory necessary to assess the patient, report the findings, perform essential treatment skills involved in limited advanced life support.

034 Skills Development for the Emergency Medical Technician II 1 Unit
Prerequisite: EMS 050 or equivalent; must be preselected into the EMT-II program.
Corequisite: EMS 030, 031, 032, 033.
Laboratory: 48 hours per semester
Practice of those shills necessary to assess the patient, report the findings, and perform the essential treatment skills involved in limited advanced life support.

035 Clinical Externship for the Emergency Medical Technician II 1½ Unit
Prerequisite: EMS 031, 032, 033, 034.
Clinic: 120 hours per semester
Practice of limited advanced life support in a clinical setting.

036 Field Externship for the Emergency Medical Technician II 3 Units
Prerequisite: EMS 035.
Field: 240 hours per semester
Practice of limited advanced life support in a field mobile intensive care unit.

037 Preceptorship for the Emergency Medical Technician II ¼ Unit
Prerequisite: EMS 036.
Clinic: 24 hours per semester
Practice at the student's home medical control base station hospital; provides an opportunity to develop team relationships with the physician and nurse.

038ABCD Emergency Medical Technician II (Recertification) ¾ Unit
Prerequisite: Must be a current EMT-II.
Lecture: 8 hours per semester
Laboratory: 8 hours per semester
Information on changes in emergency medical services; evaluation of knowledge and skills.

050 Integrated Science and Basic Medical Language for Paramedics 3 Units
Prerequisite: Must be pre-selected into the Paramedic or EMT-II Program.
Lecture: 3 hours per week
Overview of basic anatomy/physiology and medical terminology, presented in an integrated manner to inform the pre-paramedic student how the language of medicine and the study of the structures and functions of the body are used in the practice of emergency medicine.

066-069ABCD Selected Topics in Emergency Medical Services ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic:/Ficld: 5-240 hours per semester
Studies designed to review specific knowledge and skills essential to the practice of paramedicine.

090ABCD Selected Topics in Emergency Medical Services ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic:/Field/Preceptorship: 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.

091ABCD Continuing Education for the Health Professional ¼-4 Units
Prerequisite: Current EMT-P or MICN Certificate.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic/Field: 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.

098 Emergency Medical Services Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory; 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

100 Introduction to Emergency Medical Services - MICN ¼ Unit
Prerequisite: RN with one year emergency department nurse experience.
Corequisite: EMS 010, EMS 101.
Lecture: 4 hours per semester
Introduction to the local Emergency Medical Services system.

101 Cardiology for the Health Professional 3 Units
Prerequisite: None.
Lecture: 48 hours per semester
Introduction to pre-hospital coronary care systems; identification of coronary emergencies; operation of defibrillation and ECG equipment; review of cardiopulmonary resuscitation; practical management in a field situation of patients with acute myocardial infarction.

102 Emergency Department Nursing 1-3 Units
Prerequisite: Currently licensed as an R.N.
Lecture: 16-48 hours per semester

Information on clinical assessment and priority setting, psychological intervention, fluid and electrolytes, shock syndrome, legal constraints, respiratory emergency, cardiovascular emergencies, neurological injuries, thermal injuries, surface trauma, orthopedic injuries, multiple trauma, pharmacology, and various other emergencies; instruction in patient and family teaching, community relations, and team management.

103 Mobile Intensive Care Nurse 2½ Units
Prerequisite: EMS 101. 102, and 110 or R.N. with one year current emergency department nursing.
Lecture: 24 hours per semester
Laboratory: 24 hours per semester
Clinic: 8 hours per semester
Field: 16 hours per semester
Information and practice on the radio communications system; introduction to pre-hospital care protocols and standing orders.

104ABCD MICN Recertification ¾ Unit
Prerequisite: Must be a MICN currently certified in the ICEMA region. Courses must be taken in sequence.
Lecture: 8 hours per semester
Laboratory: 8 hours per semester
Clinic: 16 hours per semester
Information and practice to prepare the practicing MICN to take the written recertification exam and the skills tests.

105 Physical Assessment 2 Units
Prerequisite: R.N. or L.V.N.
Lecture: 24 hours per semester
Laboratory: 24 hours per semester
Introduction of the nurse to the extended skill of physical assessment.

106 Neonatal Nursing 2 Units
Prerequisite: Must be a R.N., L.V.N., or Respiratory Therapist.
Lecture: 30 hours per semester
Laboratory: 4 hours per semester
Clinic: 8 hours per semester
Study of neonatal care with special attention to pathophysiology of the newborn; focus on the nurse's role in the neonatal intensive care unit and on the special equipment used; participation in appropriate clinical laboratory experience.

107 Basic IV Therapy Certification 2 Units
Prerequisite: Must be a R.N. or L.V.N. and possess a valid California nursing license.
Lecture: 30 hours per semester
Laboratory: 6 hours per semester
Study of intravenous therapy, with emphasis on starting and superimposing IV fluids; use of the various types of catheters, tubing, secondary sets, and other appropriate devices; examination of reactions to IV therapy and the treatment protocols.

108 Cardiology Practicum ½ Unit
Prerequisite: None.
Corequisite: EMS 101.
Clinic: 40 hours per semester
Provision of clinical experience necessary to prepare students for entrance level employment in a Coronary Care Unit; observation of a variety of equipment and techniques used in the care of acutely ill cardiac patients; provides the clinical experience necessary to qualify for a Coronary Care Certificate.

110ABCD Advanced Cardiac Life Support - Provider 1 Unit
Prerequisite: EMS 010 and must be a M.D., R.N., EMT-P, R.T., or D.D.S.
(Must hold a current certificate in Basic Life Support from American Red Cross or American Heart Association.)
Lecture: 12 hours per semester
Laboratory: 12 hours per semester
Improvement of the emergency Advanced Life Support skills of professional medical and paramedical personnel.

111ABCD Advanced Cardiac Life Support - Provider (Recertification) ¼ Unit
Prerequisite: EMS 110.
Lecture: 3 hours per semester
Laboratory: 3 hours per semester
Provision of updated material for the Advanced Life Support provider; leads to recertification as designated by the American Heart Association.

112ABCD Advanced Cardiac Life Support - Instructor 1 Unit
Prerequisite: EMS 110. Must be 18 years of age.
Lecture: 14 hours per semester
Laboratory: 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.

113ABCD Advanced Cardiac Life Support - Instructor (Recertification) ¼ Unit
Prerequisite: EMS 112.

Lecture: 3 hours per semester
Laboratory: 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.

121 Vehicle Rescue 2 Units
Prerequisite: EMS 020 or Firet 178.
Lecture: 1 hour per week
Laboratory: 3 hours per week

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 terminations. (Also listed as FIRET 121.)

130 Wilderness Survival and Rescue Techniques 3 Units
Prerequisite: None.
Lecture: 24-48 hours per semester and/or
Field: 0-120 hours per semester

Instruction in meeting stress situations and medical emergencies in remote areas; development of outdoor survival skills and use of related equipment; emphasis on rescue procedures, protocols, and techniques. (Also listed as Firet 130.)

131 Emergency Mountain Medicine 3 Units
Prerequisite:None.
Lecture: 24-48 hours per semester
Field: 0-120 hours per semester

Studies in emergency mountain medicine: recognition, prevention, treatment, and physiology of high altitude illnesses; management of injuries in the mountain environment.

140 Advanced Wilderness Survival and Rescue Techniques 3 Units
Prerequisite: EMS 130.
Lecture: 24-48 hours per semester
Clinic./Field: 0-120 hours per semester

Continuation of EMS 130 with specific emphasis on helicopter rescue, whitewater rescue, alpine rescue (rock rescue), desert rescue, and ice and snow rescue. (Also listed as Firet 140.)

151 Introduction to Emergency Medical Services - Paramedic 2 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the Paramedic program.
Corequisite: EMS 152, 153, 154, 155.
Lecture: 32 hours per semester

Orientation to paramedic training; discussion of the relationship between the field paramedic and other professionals in the Emergency Medical system; examination of patient-family response to an emergency situation; introduction to the legal concepts of Emergency Medical Care; study of verbal and nonverbal behavior as it relates to the Emergency Medical Care Delivery System.

152 Cardiology for Paramedics 4 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the Paramedic program.
Corerequisite: EMS 151, 153, 154, 155.
Lecture: 60 hours per semester
Laboratory: 12 hours per semester

Introduction to the basic pre-hospital coronary care systems; information on implementing such a system; theoretical and practical management of patients with acute myocardial infarction.

153 Pharmacology for Paramedics 3 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the Paramedic program.
Corequisite: EMS 151, 152, 154, 155.
Lecture: 48 hours per semester

Information to enhance the student's knowledge in regard to the administration of medications, to develop an understanding of drug therapy and to develop a background of general information about drugs and their actions and interactions; development of an understanding of basic drug mathematics and posology.

154 EMS Theory R Units
Prerequisite: EMS 050 or equivalent; must be preselected into the Paramedic program.
Corequisite: EMS 151, 152, 153, 155.
Lecture: 128 hours per semester.

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

155 Skills Development for the Paramedic 2 Units
Prerequisite: EMS 050 or equivalent; must be preselected into the Paramedic program.
Corequisite: EMS 151, 157, 153, 154.
Laboratory: 80 hours per semester

Practice to enhance the student's knowledge of and ability to diagnose and treat signs of traumatic emergencies and/or medical emergencies and respond to specific emergency situations arising from traumatic or medical emergencies; opportunity to approach clinical problems in emergency medicine with emphasis on the pathophysiology of disease processes as the basis tor efficient and rational initial emergency management.

156 Clinical Externship for the Paramedic 1½ Units
Prerequisite: EMS 151, 152, 153, 154, 155.
Clinic: 120 hours per semester
Practice to enhance the student's knowledge of administration of emergency medicine in a clinical setting; opportunity to assist and observe in emergency rooms under the direct supervision of staff members of the treating facility, as well as in other clinical areas of the treating facility.

157 Field Externship for the Paramedic 7½ Units
Prerequisite: EMS 156.
Field: 600 hours per semester
Coordination of advanced paramedical training with a field mobile intensive care unit; opportunity to observe and assist in emergency medical intervention in traumatic medical and surgical emergencies and diseases. This phase of the training program will be in conjunction with a registered paramedical unit.

158ABCD Paramedic Recertification ¾ Unit
Prerequisite: Must be a paramedic currently certified in the ICEMA region. Courses must be taken in sequence.
Lecture: 6 hours per semester
Laboratory: 6 hours per semester
Clinic: 16 hours per semester
Preparation for the practicing paramedic to take the written recertification exam and the skills tests.

200ABCD Selected Topics in Emergency Medical Services ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic: 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.

236-239ABCD Selected Topics in Emergency Medical Services ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic: 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.

Special Studies in Emergency Medical Services

246ABCD	1 Unit
247ABCD	2 Units
248ABCD	3 Units
249ABCD	4 Units

Prerequisite: None.
Laboratory: 48-192 hours per semester and/or
Clinics: 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.

ENGLISH

001-002 Vocabulary Improvement 3 Units
Prereqiusite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week
Overview of the growth and structure of the English language, emphasizing development of skill in self-expression through vocabulary improvement.

015 Preparation for College Writing 4 Units
Prerequisite: None.
Lecture: 4 hours per week
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.

016 Writing Laboratory 1-3 Units
Prerequisite: None.
Laboratory: 48 hours per semester per unit
Diagnosis of specific weaknesses in basic writing; design and provision of an individualized program to help the student overcome these problems.

101 Freshman Composition 4 Units UC
Prerequisite: Pass Placement Test.
Lecture: 4 hours per week
Training in effective written composition, utilizing both instruction in writing and regular composition assignments.

144 Business English 3 Units
Prerequisite: None
Lecture: 3 hours per week
Review of basic grammar and the principles of effective English usage as applied in business, including skills and techniques of written communication. Written composition includes various types of business letters, memoranda and reports. (Also listed as OA 144).

152 Freshman Composition and Literature 3 Units
UC
Prerequisite: English 101.
Lecture: 3 hours per week
Study of fiction, poetry, and drama, with emphasis on the fundamental principles of literary criticism and interpretation including student writing based on critical reading.

160 Literature by Women 3 Units
UC
Prerequisite: English 101.
Lecture: 3 hours per week
Overview of contemporary literature by and about women.

170 The Film Experience 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of what makes a good film for the film viewer, utilizing the methods of literary criticism to examine the use of image, symbol, theme, character, and plot in selected films.

175 Literature and Religion of the Bible 3 Units
UC
Prerequisite: English 101.
Lecture: 3 hours per week
Study of the English Bible as literature and as religion. Examination of the types of literature found in the Bible, the historic-religious context in which the literature developed, and an extensive reading of the two testaments. (Also listed as Religious Studies 175.)

232-233 Creative Writing 3 Units
UC
Prerequisite: Eligibility for English 101. Courses need not be taken in sequence.
Lecture: 3 hours per week
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.

250-251 Fiction 3 Units
UC
Prerequisite: English 101. Courses need not be taken in sequence.
Lecture: 3 hours per week
Intensive study of fiction as a literary form, using outside reading and in class discussions of representative short stories and novels accompanied by short written analyses. Emphasis will usually he on a particular type of fiction; see the current schedule of classes for the specific emphasis.

260-261 American Literature 3 Units
UC
Prerequisite: English 101. Courses need not be taken in sequence.
Lecture: 3 hours per week
Analysis of representative literary works of significant American writers to illustrate the origin and development of American thought and culture.

270-271 Survey of English Literature 3 Units
UC
Prerequisite: English 101. Courses need not be taken in sequence.
Lecture: 3 hours per week
Analysis of representative literary works of significant English writers from the beginning to the present, with a study of the historical and social background of the literature and lives of important writers.

275 Shakespeare 3 Units
UC
Prerequisite: English 101.
Lecture: 3 hours per week
Study of the plays and poetry of Shakespeare, with additional study of Shakespeare's life and times.

FIRE TECHNOLOGY

050-061ABCD Selected Topics in Fire Technology ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic/Field: 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.

064 Basics of Firefighter Training I 2¼ Units
Prerequisite: None. (Firet 100 may be substituted for this course.)
Lecture: 34 hours per semester
Laboratory: 6 hours per semester
Basic introduction to fire technology, rules and regulations, personnel duties and functions, fire service organizations, history of fire, fire apparatus, note taking, pre-fire planning and career opportunities and safety practices.

065 Fire Hose Operations 1½ Units
Prerequisite: Firet 064 or Firet 100
Lecture: 4 hours per semester
Laboratory: 60 hours per semester
Introduction to fire hose construction, hose loads fire hydrant connections, hose lay both wet and dry, and hose lines aloft for single and multiple lines of various sizes, including large diameter hose, nozzles, fittings, adapters and appliances.

066 Fire Ladder Operations 1 Unit
Prerequisite: Firet 064 or Firet 100
Lecture: 4 hours per semester
Laboratory: 36 hours per semester
Study of fire department ladders and operations, including ladder construction and terminology, as well as instruction and practice in carrying, raising and climbing various types and sizes of fire ladders.

067 Basic Rescue Practices 1¼ Units
Prerequisite: Firet 064 or Firet 100.
Lecture: 13 hours per semester
Laboratory: 27 hours per semester
Introduction to basic rescue, including use of breathing apparatus, search techniques, ropes, knots and hitches, auto extrication theory and practice.

068 Fire Prevention and Investigation 2½ Units
Prerequisite: Firet 064 or Firet 100.
(Firet 100 may be substituted for this course.)
Lecture: 39 hours per semester
Laboratory: 1 hour per semester
Introduction to fire prevention procedures, codes and ordinances, building construction, sprinkler systems and occupancy classifications. Includes firefighter's responsibility in fire investigation and report writing.

069 Water Supply, Fire Hydraulics and Salvage 1¼ Units
Prerequisite: Firet 064 or Firet 100.
Lecture: 18 hours per semester
Laboratory: 6 hours per semester
Study of water sources, distribution systems and an introduction to basic fire hydraulics. Includes salvage operations, folding, carrying and spreading salvage covers, water removal, overhaul, protection of property and forcible entry.

070 Response to Emergencies 1 Unit
Prerequisite: Firet 064 or Firet 100.
Lecture: 16 hours per semester
Study of basic principles of emergency driving, fire alarm systems, communications, and awareness of hazardous materials.

071 Structure Fire Control 1½ Units
Prerequisite: Firet 064 or Firet 100 and Firet 065 and Firet 066 and Firet 067.
Lecture: 20 hours per semester
Laboratory: 20 hours per semester
Introduction to fire chemistry and behavior, both in classroom and in field. Operation of fire department tools. Practical fire control methods in the field, involving both interior and exterior attack on hit fires, as well as ventilation methods. Fireground operations, including strategy and tactics and the incident command system. Practical breathing apparatus drills utilizing smoke.

072 Flammable Liquid and Gas Fire Control ¾ Unit
Prerequisites: Firet 064 or Firet 100 and Firet 065.
Lecture: 8 hours per semester
Laboratory: 16 hours per semester
Study of physical properties of flammable liquids and gases and various extinguishing agents and methods. Practical hose handling drills and hot fire field activities utilizing various L.P.G. and flammable liquid props and training pits.

073 Wildland Fire Control ¾ Unit
Prerequisites: Firet 064 or Firet 100 and Firet 065.
Lecture: 8 hours per semester
Laboratory: 16 hours per semester
Introduction to basic wildland fire control, including both classroom and practical field operations. Includes theory, burning characteristics, safety procedures and fire control measures. Use of wildland fire hand tools and motorized equipment. Hot fire practice, including both hand tools and hose lays.

074 Emergency Medical Technician I - Fire Service 5 Units
Prerequisite: None.

Lecture: 60 hours per semester
Laboratory: 60 hours per semester

Preparation for fire service personnel to render prehospital basic life support services, including cardiopulmonary resuscitation, under field emergency conditions; and to extricate and prepare victims for transport to an acute care hospital. In contrast to other EMS authority approved EMT-I programs, the SBFS EMT-1 NA/FS program emphasizes those skills most used in the Fire Service, including extrication skills.

075 Fire Technology Basic Training Academy 4½-9 Units
Prerequisite: EMS 020, Firet 100, Firet 101, or equivalent.
Lecture: 50-100 hours per semester
Laboratory: 100-220 hours per semester

Introduction to basic fire fighting theory and skills; study of the characteristics and behavior of fire; practice in fundamental fire suppression activities, with special attention on safety, first aid, and rescue procedures.

080 Fire Instructor 1A 2-3 Units
Prerequisite:None.
Lecture: 2-3 hours per week

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 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

Preparation tor 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 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

Study of fire prevention; focus on code use, improvement, enforcement and fire cause; consideration of flammable liquids, gases, and solids, combustible dust and metals, explosive materials, properties of plastics, portable and fixed fire protection equipment. Successtul completion of Firet 082 and 083 fulfills the fire prevention requirements for State Officer certification.

083 Fire Prevention 1B 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

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 083 fulfills the fire preventions requirements of State Officer certification.

084 Fire Management 1 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

Study of fire ground and tire 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 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

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 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week

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 1 2-3 Units
Prerequisite: None.
Lecture: 2-3 hours per week
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.

090-097ABCD Selected Topics in Fire Technology ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic/Field: 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.

098 Fire Technology Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

100 Introduction to Fire Technology 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the philosophy and history of fire protection; review of municipal fire defenses; examination of the organization and function of Federal, State, County and private protection agencies and survey of professional fire protection career opportunities.

101 Fundamentals of Fire Prevention 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the structure and function of the fire prevention organization; inspection; surveying and mapping procedures; recognition, solution and response to fire hazards, and public relations as affected by fire prevention.

103 Fundamentals of Personal Fire Safety and Emergency Care 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Development of the basic skills essential to the assessment of fire dangers; handling common fire situations in the home and/or industry; basic cardiac life support and standard first aid.

104 Fire Apparatus and Equipment 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of fire apparatus design, specifications, and performance capabilities, and effective utilization of apparatus in fire service emergencies.

105 Related Codes and Ordinances 3 Units
Prerequisite: Firet 101
Lecture: 3 hours per week
Familiarization with national, state and local laws and ordinances which influence the field of fire prevention.

106 Fire Hydraulics 3 Units
Prerequisite: Completion of Firet 100 or appropriate work experience
Lecture: 3 hours per week
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.

107 Rescue Practices 3 Units
Prerequisite: Completion of Firet 100 or appropriate work experience.
Lecture: 3 hours per week
Study of rescue practices, the human body. emergency care of victims, childbirth, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards; consideration of rescue problems and techniques.

108 Fundamentals of Fire Behavior and Control 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Review of basic chemistry, storage, handling, laws, standards and fire fighting practices per-

taining to hazardous materials; study of problems involved in storage, handling, manufacture, transportation and use of hazardous material likely to be encountered in fire fighting practices.

110 Fire Investigation 3 Units
Prerequisite: Firet 101 and Adjus 106.
Lecture: 3 hours per week
Introduction to arson and incendiarism, arson laws and types of incendiary fires; methods of determining fire causes, recognizing and determining evidence, interviewing and determining witnesses and procedures in handling juveniles, court procedure and court testimony in arson cases.

116 Fundamentals of Fire Protection 3 Units
Prerequisite: Firet 101.
Lecture: 3 hours per week
Fundamentals of building construction and design; fire protection features and special considerations.

117 Public Service Communication 3 Units
Prerequisite: Firet 101.
Lecture: 3 hours per week
Study of the history, theory, mechanics, and operations of public safety communications system, including fire law enforcement and emergency medical communications systems and practices; basic equipment and procedures for computer based operations.

118 WildIand Fire Control 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the factors affecting wildland fire prevention, behavior, and control techniques.

121 Vehicle Rescue 2 Units
Prerequisite: EMS 020 or Firet 178.
Lecture: 1 hour per week
Laboratory: 3 hours per week
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.

130 Wilderness Survival and Rescue Techniques 3 Units
Prerequisite: None.
Lecture: 24-48 hours per semester and/or
Clinic/Field: 0-120 hours per semester
Instruction in meeting stress situations and medical emergencies in remote areas; development of outdoor survival skills and use of related equipment; emphasis on rescue procedures, protocols, and techniques. (Also listed as EMS 130.)

140 Advanced Wilderness Survival and Rescue Techniques 3 Units
Prerequisite: Firet 130.
Lecture: 24-48 hours per semester
Clinic/Field: 0-120 hours per semester
Continuation of Firet 130 with specific emphasis on helicopter rescue, whitewater rescue, alpine rescue (rock rescue), desert rescue, and ice and snow rescue. (Also listed as EMS 140.)

149 Basic Incident Command System 3 Units
Prerequisite: None.
Lecture: 3 hours per week
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.

150 Crew Supervisor 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Study of the skills used in assessing and making decisions in fire situations and the knowledge and leadership needed to effectively supervise a hand crew.

151 Situation Unit Leader 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Instruction in the duties and responsibilities associated with the Incident Command System (I.C.S.) Situation Status (SITSTAT) Unit.

152 Prescribed Fire Training 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Examination of the skills and knowledge in assessing and in making decisions in prescribed fire situations.

153 Logistics Chief 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.

Lecture: 3 hours per week
Introduction to the role of the Planning Section Chief within the Incident Command System (ICS); study of the collection, evaluation, and dissemination of ICS information.

160 Incident Commander 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture; 3 hours per week
Study of the responsibilities related to incident activities, including the development and implementation of strategic decisions and the ordering and releasing of appropriate resources.

161 Operations Section Chief 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Study of the management tactics and strategies for all operations directly applicable to the primary mission.

162 Logistics Section Chief 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Study of the provision of facilities, services, and material necessary to support the management of a major incident.

163 Planning Section Chief 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Study of the collection, evaluation, and dissemination of tactical information; examination of the maintenance of information on the current and forecast situation and on the status of resources; consideration of the preparation and documentation of action plans.

164 Finance Section Chief 3 Units
Prerequisite: Firet 149. Intended primarily for emergency service personnel.
Lecture: 3 hours per week
Study of the financial and cost analysis aspects of the incident; development of a financial operations plan tied to work objectives and performance evaluation.

165 Helicopter Coordinator 2 Units
Prerequisite: None.
Lecture: 2 hours per week
Study of the Helicopter Coordinator position in the Incident Command System Operations Section; application of the information and knowledge received, through discussions, problem solving, and role playing.

170 Basic Wildland Fire Fighting 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Introduction to wildland fire suppression; overview of commonly used concepts and practices of fire fighting.

171 Basic Engine Laboratory 2 Units
Prerequisite: None.
Lecture: 1 hour per week
Laboratory: 3 hours per week
Technical training in the use of portable pumps, hoselays, engine equipment, chainsaws, and water in fire suppression.

172 Fire Operations Supervision 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the skills essential to effective supervision in major fire management operations.

173 Crew Leadership Operation 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study and practice of operational theory as it relates to crew leadership under fire fighting conditions.

174 Wildland Fire Prevention 3 Units
Prerequisite: None.
Lecture: 3 hours per week
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 3 Units
Prerequisite: None.
Lecture: 3 hours per week
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 3 Units
Prerequisite: None.
Lecture: 3 hours per week
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
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week
Field: 5 hours per week
Examination of the principles of fire control through the use of manpower, equipment, and extinguishing agents in the classroom, laboratory and field.

178 Map Interpretation 2 Units
Prerequisite:None.
Lecture: 1 hour per week
Laboratory: 3 hours per week
Identification and interpretation of maps appropriate to wildland fire prevention and response.

179 Weather and Fire Behavior 3 Units
Prerequisite: Firet 176, 177, 178.
Lecture: 3 hours per week
Study of weather variables that influence fire behavior.

180 Oil and Gas Fires 4 Units
Prerequisite: Firet 176, 177, 178.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Study of the proper tactics and methods for response to oil and gas fires.

181 Hazardous Materials Spills 4 Units
Prerequisites: Firet 176, 177, 178.
Lecture: 2 hours per week
Laboratory: 3 hours per week
Field: 5 hours per week
Study of the identification, handling, and fire fighting practices involved when explosives, toxic substances, and radioactive materials ignite in storage or in transit.

182 Structural Fires 4 Units
Prerequisite: Firet 176, 177, 178.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Study of how building construction influences fire behavior.

183 Aircraft Accidents 3 Units
Prerequisite: Firet 176, 177, 178.
Lecture: 2 hours per week
Laboratory: 3 hours per week
Study of the methods and tactics used in response to potential or active aircraft fire.

184 Infrared Imagery Interpreter 1 Unit
Prerequisite: None.
Lecture: 16 hours per semester
Laboratory: 8 hours per semester
Introduction to infrared interpretation, including the responsibilities for the collection, and dissemination about information of the imagery.

185 Infrared Field Specialist 1 Unit
Prerequisite: Firet 184.
Lecture: 16 hours per semester
Laboratory: 8 hours per semester
Introduction to the duties of infrared field specialist, including the responsibilities for organizing and disseminating information on the proper topographic or orthographic maps.

200 Fire Fighting Tactics and Strategy 3 Units
Prerequisite: Completion of Firet 100 or appropriate work experience.
Lecture: 3 hours per week
Review of fire chemistry, equipment and manpower, basic fire fighting tactics and strategy, methods of attack and pre-planning fire problems.

201 Fire Protection Equipment and Systems 3 Units
Prerequisite: Firet 101.
Lecture: 3 hours per week
Study of portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems.

202 Fire Company Organization and Management 3 Units
Prerequisite: Completion of Firet 100 and Firet 200 or appropriate work experience.
Lecture: 3 hours per week
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.

210 Fire Behavior 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Recognition of the factors relating to fuels, topography, and weather that affect wildland fire behavior; application to the theories and principles to the fire control process.

211 Aviation and Management 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of aviation management responsibilities, with attention given to the duties of the aviation officer, the development of unit aviation plans and project plans, the problems of fuel quality management and an overview of the transportation of hazardous materials.

220-245ABCD Selected Topics in Fire Technology ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic/Fie/d: 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.

250-263ABCD Selected Topics in Fire Technology ¼-4 Units
Prerequisite: None.
Lecture: 1-64 hours per semester and/or
Laboratory: 2-96 hours per semester and/or
Clinic/Fie/d: 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.

275 Emergency Vehicle Operation 2 Units
Prerequisite: Contract, paid-call, or documented volunteer fire fighting experience.
Lecture: 2 hours per week
Laboratory: 4 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 Pump Operation 2 Units
Prerequisite: Firet 275.
Lecture: 2 hours per week
Laboratory: 4 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.

FRENCH

101A College French I (Part 1) 2½ Units
UC
Prerequisite: None.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

101B College French I (Part 2) 2½ Units
UC
Prerequisite: French 101A.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of French 101A. (French 101AB is equivalent to French 101.)

101 College French 1 5 Units
UC
Prerequisite: None.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Comprehension, conversation, reading and composition, including drill in essential grammar, at the elementary level.

102A College French II (Part 1) 2½ Units
UC
Prerequisite: French 101B or French 101, or one year of high school French.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of French 101B or French 101

102B College French II (Part 2) 2½ Units
UC
Prerequisite: French 102A.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of French 102A. (French 102AB is equivalent to French 102.)

102 College French II 5 Units
UC
Prerequisite: French 101 or French 102A and 1028, or one year of high school French.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Continuation of French 101.

166 Selected Studies in French 1-3 Units
UC
Prerequisite: French 102 or French 102A and

1028, or two years of high school French, or equivalent proficiency.
Lecture: 1-3 hours per week
Laboratory: 2 hours per week per unit of independent study
Special studies in French which allow students to concentrate on increasing their proficiency in the language and/or broadening their knowledge of French civilization and culture, through a combination of independent study and meetings with the instructor.

103 College French III 4 Units
UC
Prerequisite: French 102 or French 102A and 1028, or two years of high school French.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Composition and conversation, including a review of grammar, plus extensive and intensive reading of practical as well as literary French.

104 College French IV 4 Units
UC
Prerequisite: French 103 or three years of high school French.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Continuation of French 103.

242 French Culture and Civilization 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of the culture and civilization of France. (Class is conducted in English.)

GEOGRAPHY

102 Introduction to Cultural Geography 3 Units
Prerequisite: None.
Lecture: 3 hours per week and field trips
Introduction to cultural geography, emphasizing the interrelationship of man and the land, including study of populations, regional analysis, and livelihood patterns.

110 Physical Geography 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week 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.

III Physical Geography Laboratory 1 Unit
UC
Prerequisite or Corequisite: Geography 110.
Laboratory: 3 hours per week
Laboratory to accompany Geography 110.

114 Weather and Climate 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and field trips
Study of the earth's atmospheric phenomena, emphasizing the causes and regional distribution of weather and climate.

119ABCD Selected Studies in Geography ¼-1 Unit
UC
Prerequisite: None.
Lecture: ¼-1hour per week and/or
Laboratory: ¾-3 hours per week
Short courses in regional, physical, and cultural geography, offered on an occasional basis.

126 Geography of California 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week 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

100 Physical Geology 4 Units
UC
Prerequisite:None,
Lecture: 3 hours per week
Laboratory: 3 hours per week 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.

101 Introduction to Geology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
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.

112 Historical Geology 4 Units
UC
Prerequisite: Completion of a geology course.
Lecture: 3 hours per week
Laboratory: 3 hours per week and field trips
Study of the geologic history of the earth, including the chronological development of major continental features, the interpretation of earth history from rock records, and the evolutionary development of plant and animal life.

150 Man and His Geologic Environment 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and field trips
Introduction to the interrelationships among geologic processes, earth materials, and man, emphasizing population, geologic hazards (landslides, mudflows, earthquakes, 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
Prerequisite or Corequisite: Any course in Geology.
Laboratory: 3 hours per week
Laboratory to accompany various Geology courses in order to complete the laboratory science requirement.

170ABC Geologic History of the Great Basin 1 Unit
UC
Prerequisite: Any course in Geology.
Lecture: 8 hours per semester
Laboratory: 32 hours during a four-day field trip.
Discussion and observation of the physical and historical geology of the Great Basin province of the United States, with specific emphasis on the geology of the Death Valley National Monument. Course work will include a series of lectures preparatory to a four-day field trip through parts of the Great Basin in and around Death Valley. Students must attend the field trip for successful completion of the course.

209 Geology of the Hawaiian Islands 3 Units
UC
Prerequisite: Any course in Geology or equivalent.
Corequisite: Biology 209.
Lecture: 16 hours per semester
Laboratory: 96 hours per semester
Lecture and field trip study of the physical and historical geology of the Hawaiian Islands, with emphasis on Hawaii, Maui, Oahu and Kauai. Lecture topics are closely coordinated with laboratory and field study. Practice swimming pool sessions are conducted prior to field study.

246ABCD Special Problems in Geology 1 Unit
UC*
Prerequisite or Corequisite: Any course in Geology.
Laboratory: 3 hours per week
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
Prerequisite: None.
Lecture: 3 hours per week 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
Prerequisite: None.
Lecture: 3 hours per week and field trips
Study of the geology of selected national parks and monuments of the United States, with particular emphasis on the geologic processes which formed them.

252 Geology for the Space Age 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the problems raised by geologic studies related to the space age, including meteorites and meteorite impact craters, terrestrial geology done with the aid of satellites, geologic investigations on the moon, and the geologic nature of other planets in the solar system.

260ABC Introduction to Field Geology 2 Units
UC
Prerequisite: Any course in Geology.
Lecture: 16 hours per semester
Laboratory: 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 tor successful completion of the course.

270ABC Geology of the Eastern Sierra Nevada 1 Unit
Prerequisite: Any course in Geology.
Lecture: 8 hours per semester
Laboratory: 32 hours during a four-day field trip.
Physical and historical geology of the Eastern Sierra Nevada Province, with special emphasis on the volcanic and glacial features in and around the Mammoth-Mono Lakes region. Course work will involve a series of lectures preparatory to a four-day field trip along the eastern margin of the Sierra Nevada. Students must attend the field trip for successful completion of the course.

GERMAN

101A College German 1 (Part 1) 2½ Units
UC
Prerequisite: None.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

101B College German 1 (Part 2) 2½ Units
UC
Prerequisite: German 101A.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of German 101A.

101 College German I 5 Units
UC
Prerequisite: None.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar, at the elementary level.

102 College German II 5 Units
UC
Prerequisite: German 101, or German 101A and 1018, or one year of high school German.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Continuation of German 101.

166 Selected Studies in German 1-3 Units
UC
Prerequisite: German 102 or two years of high school German, or equivalent proficiency.
Lecture: 1-3 hours per week
Laboratory: 2 hours per week per unit of independent study
Special studies in German which allow students to concentrate on increasing their proficiency in the language and/or broadening their knowledge of German civilization and culture, through a combination of independent study and meetings with the instructor.

103 College German III 4 Units
UC
Prerequisite: German 102 or two years of high school German.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Composition and conversation, including a review of grammar, plus extensive and intensive reading of practical as well as literary German.

104 College German IV 4 Units
UC
Prerequisite: German 103 or three years of high school German.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Continuation of German 103.

HEALTH EDUCATION

102 Biologic Principles of Health 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Principles of personal, physical, emotional, and sociological health in modern society, including the study of substance abuse: tobacco, alcohol, and other drugs. This course fulfills all requirements for graduation from four-year colleges and universities and for all educational credentials. It is especially appropriate for physical education, recreation and health education majors.

HISTORY

100-101 History of the United States 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week
Survey of the history of the United States from the Age of Discovery to the present, with

emphasis on political, social, and cultural developments. First semester deals with the period from discovery until 1900; second semester deals with the twentieth century.

135 Religion in America 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of the principal figures, groups, 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 Black religious experience, Catholic-Protestant-Jew, and contemporary religious phenomena. (Also listed as Religious Studies 135.)

153 History of Mexico 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
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.

160-161 History of Western Civilization 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week
Survey of the political. economic, social, and intellectual developments that form the basis for Western Civilization.

164 History of England and Great Britain 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the history of England, emphasizing the rise of England and the extension of British cultural, economic, and political influence over the world in the British Empire and the Commonwealth of Nations.

165 History of England and Great Britain 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey and analysis of the rise of the English people, with emphasis o the estension of British culture, economic and political influence over the world in the British Empire and the Commonwealth of Nations.

246 Special Problems in History 1 Unit
247 2 Units
UC
Prerequisite: Completion of/or concurrent enrollment in a History course.
Laboratory: 3 hours per unit per week
Independent projects for selected students with a special interest in history, involving assigned readings, research, and conferences.

INTERDISCIPLINARY STUDIES

084 Project Quest ¼-4 Units
Prerequisite: None.
Lecture: 6-32 hours per semester and/or
Laboratory: 32 hours per semester and/or
Clinic: 20-60 hours per semester
Orientation to postsecondary education and to nontraditional careers; emphasis on the development of academic and job survival skills.

100ABCD Individual and Group Studies ½-3 Units
Prerequisite: None.
Lecture: 8-46 hours per semester and/or
Laboratory: 24-144 hours per semester
Topics of interest from humanities, social sciences, sciences, behavioral sciences, and other appropriate areas, presented in either independent or group activity modes.

106 Introduction to Sign Language 2 Units
Prerequisite: None.
Lecture: 1 hour per week
Laboratory: 3 hours per week
Introduction to the American Manual Alphabet (fingerspelling) and American Sign Language as used among most deaf people in North America, with emphasis on learning a basic survival vocabulary of 420 signs, learning to use these signs in proper sentence construction, and learning to interpret simple sentences into sign language. Lectures will focus on the problems a deaf person faces in a hearing society; laboratory will focus on sign language acquisition.

122ABCD Selected Studies in Sign Language 1-2 Units
Prerequisite: Intdis 106.
Lecture: ½-1 hour per week
Laboratory: 1½-3 hours per week
Intensive study of sign language for special purposes, with emphasis on learning a basic vocabulary of 500 signs which will aid in com-

municating with deaf people in particular job settings. The specific area of study will vary each semester. Lectures will focus on the psychological and sociological problems the deaf must face in the particular area of study. Areas of study: law/court/probation; law enforcement/fire control; medical/health services; business/ office; social work and related areas.

130 Contemporary Issues: Ethical Issues in Modem Medicine 1-3 Units
UC
Prerequisite: None.
Lecture: 1-3 hours per week

Survey and analysis of the value conflicts and ethical dilemmas brought on by advances in the biomedical sciences. Topics to be discussed include genetic management, abortion, euthanasia, informed consent, behavior control, rights to health care, allocation of medical resources, and the goals of medicine.

140 Humanities Through the Arts 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

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.

MARKETING

098 Marketing Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week

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

100 Marketing Principles 3 Units
Prerequisite: None.
Lecture: 3 hours per week

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
Prerequisite: None.
Lecture: 3 hours per week

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 objections and excuses, closing the sale, and others.

110 Advertising 3 Units
Prerequisite: None.
Lecture: 3 hours per week

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.

MATHEMATICS

001 Arithmetic 3 Units
Prerequisite: None.
Lecture: 3 hours per week

Study of the fundamental operations involving whole numbers, fractions, decimals, ratios, proportions and percents. Not applicable for credit toward associate degree.

052 Review Arithmetic and Introduction to Algebra 3 Units
Prerequisite: None.
Lecture: 3 hours per week

Review of fractions, decimals, ratio and proportions, percent, and an introduction to algebra. Not applicable for credit toward associate degree.

080 Math Without Fear ½ Unit
Prerequisite: None.
Lecture: ½ hour per week
Laboratory: ½ hour per week

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 physiological 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.

090 Elementary Algebra 4 Units
Prerequisite: Math 052 or equivalent.
Lecture: 4 hours per week
Study of basic topics in algebra, including operations with signed numbers and algebraic expressions. Emphasis is placed on the mastery of factoring and fractions. The solutions of first degree, fractional, and literal equations are addressed. Also included are the study of first degree equations in two variables, graphing linear equations, and an introduction to exponents and radicals.

100 Plane Geometry 3 Units
Prerequisite: Math 090 or equivalent.
Lecture: 3 hours per week
Fundamentals of plane geometry developed by inductive and deductive processes, with emphasis on deductive reasoning and the beauty of mathematical rigor. Topics addressed are construction, parallel and perpendicular lines, congruences, similar polygons, pythagorean theorem, ratio, proportion, area, and circles.

102 Intermediate Algebra 4 Units
Prerequisite: Math 090 or equivalent.
Lecture: 4 hours per week
Further study of topics in algebra, including properties of real numbers; multiplication, division, and factorization of polynomials; fractional exponents, and radicals; equations and inequalities of first and second degree systems of equations; functions and their graphs; exponential and logarithmic functions; and complex numbers.

103 Plane Trigonometry 4 Units
Prerequisite: Math 102 or equivalent.
Lecture: 4 hours per week
Study of the trigonometric functions, their properties and graphs, and study of inverse trigonometric functions, 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 Introduction to Probability and Statistics 4 Units
UC
Prerequisite: Math 102 recommended.
Lecture: 4 hours per week
Introduction to probability, descriptive and inferential statistics, with application to the natural sciences, business, economics, and behavioral sciences.

140 Finite Mathematics 4 Units
UC
Prerequisite: Math 104 or equivalent.
Lecture: 4 hours per week
Introduction to probability including "tree" diagram, stochastic processes, Markov chains. Matrices, linear systems, introduction to linear programming and theory of games.

141 Calculus for Business 4 Units
UC
Prerequisite: Math 102 or equivalent.
Lecture: 4 hours per week
Differential and integral calculus with emphasis on applications in business, social sciences, and life sciences. Not open to students with credits in Mathematics 152, 251.

151 College Algebra and Analytic Geometry 4 Units
UC
Prerequisite: Math 103 or equivalent.
Lecture: 4 hours per week
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.

152 Analytic Geometry and Calculus 4 Units
UC
Prerequisite: Math 151 or equivalent.
Lecture: 4 hours per week
Study of relations and functions, introduction to limits and continuity, derivatives of algebraic and trigonometric functions, applications of the derivatives including maxima and minima, graphing relations and functions, related rates, and integrals of algebraic and trigonometric functions, and applications of integrals.

251 Analytic Geometry and Calculus 4 Units
UC
Prerequisite: Math 152 or equivalent.
Lecture: 4 hours per week
Study of derivatives and integrals of inverse trigonometric functions, transcendental functions, methods of integration, additional applications of integrals, polar coordinates, parametric equations, conic sections infinite series, improper form and improper integrals.

252 Analytic Geometry and Calculus 4 Units
UC
Prerequisite: 251 or equivalent.
Lecture: 4 hours per week
Study of vectors and solid analytic geometry, functions of several variable, spartial derivatives, multiple integrals, and line and surface integrals.

254 Introduction to Ordinary Differential Equations 4 Units
UC
Prerequisite: Math 251 or equivalent,
Lecture: 4 hours per week
Introduction to differential equations, first and second order differential equations, solutions of homogeneous and non homogeneous equations, applications of differential equations, series solutions of second order linear equations and systems of first order linear equations.

MICROBIOLOGY

102 Introductory Microbiology 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Laboratory: 3 hours per week
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 disease. Recommended for students in health occupations.

150 Basic Microbiology 5 Units
UC
Prerequisite: Chemistry 101.
Lecture: 3 hours per week
Laboratory: 6 hours per week
Study of microbiology, emphasizing the biology of microorganisms, including bacteria, viruses, fungi, protozoa, and algae. Introduces the student to the fundamental principles of microbial cultivation, metabolism, genetics, growth and control. Principles of disease transmission and a survey of communicable diseases are also included.

246AB Special Problems in Microbiology 1 Unit
247AB 2 Units
248AB 3 Units
UC*
Prerequisite: Micro 150.
Laboratory: 3 hours per week per unit
Independent projects for selected students with a special interest in microbiology, involving library research and/or laboratory projects.

MUSIC

100 Fundamental Skills in Music 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Sight reading of materials found in music; development of sight reading techniques, rhythmic expression and notation; simple melodic dictation and harmonization. Particularly designed for pre-education majors.

101-102 Music Theory I, II 3 Units
201-202 Music Theory III, IV
UC
Prerequisite: None.
Lecture: 3 hours per week
Laboratory: 1 hour per week
Progressive study through four semesters includes work in sight-singing, dictation, rhythms, scales, signatures, elementary harmony from the common practice period, intermediate harmony through secondary dominants, advanced harmony through augmented sixths, extensions into scalar and chordal harmonies, extended chromaticism, elementary twelve tone relationships.

105-106 Musicianship 3 Units
UC
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 2 hours per week
Study of melodic rhythmic dictation, drill in sight reading, and analysis of music of the masters using keyboard harmonies.

112-113 Jazz Theory and Musicianship 3 Units
UC
Prerequisite: Ability to read music.
Lecture: 3 hours per week
Study of the elements of contemporary jazz theory, emphasizing techniques of jazz improvisation.

120-121 Appreciation of Musical Literature 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.

Lecture: 3 hours per week

Introduction to the music of the great composers, designed to aid the musically untrained listener to develop an understanding and enjoyment of great music, both vocal and instrumental.

128-129 Class Organ I, II 2 Units
UC
Prerequisite: 2 years piano or equivalent.
Lecture: 1 hour per week
Laboratory: 2 hours per week

Progressive instruction on the organ, to include two-part manual playing. manual and pedal work, hymn playing, phrasing, articulation, three voice compositions, and registration technique.

130-131 Elementary Voice 2 Units
UC*
Prerequisite: Ability to match pitches. Courses need not be taken in sequence.
Lecture: 1 hour per week
Laboratory: 2 hours per week

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.

132-133 Elementary Guitar,
Intermediate Guitar 2 Units
232-233 Advanced Guitar I, II
UC*
Prerequisite: Student must have his/her own guitar. Courses must be taken in sequence.
Lecture: 1 hour per week
Laboratory: 2 hours per week

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.

134 American Jazz Music -
Past and Present 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

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 of the major jazz artists and their innovations.

135-136 Elementary Piano I, II 2 Units
235-236 Intermediate Piano III, IV
UC*
Prerequisite: None. Music 100 recommended, Courses must be taken in sequence.

Progressive class instruction in piano, including scale techniques, sight-reading, ensemble playing. basic literature, keyboard techniques, and musicianship skills.

143ABCD Woodwind, Brass and
Percussion Instruction 2 Units
UC
Prerequisite: Ability to match pitches and perform basic manual skills. Course must be taken in sequence.
Lecture: 1 hour per week
Laboratory: 2 hours per week

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 second instrument are encouraged to take advantage of this opportunity.

150-151 Mixed Chorus 1 Unit
250-251
UC*
Prerequisite: None.
Laboratory: 2 hours per week

Foundational techniques in such aspects of choral music as breathing, posture, tone production, enunciation and musicianship; especially recommended tor pre-teaching and liberal arts majors who desire vocal training.

154-155 College Singers 1-3 Units
254-255
UC
Prerequisite: Audition with instructor. Enrollment in Music 100 recommended.
Lecture: ½-1 hour per week
Laboratory: 2½-5 hours per week

Study and performance of outstanding representative choral works from all periods of music history.

156ABCD Concert Choir 1-2 Units
UC
Prerequisite: Ability to match pitches. Courses must he taken in sequence.
Laboratory: 2-4 hours per week

Study and performance of outstanding

representative choral works from all periods of music history.

160-161 Wind Instrument Ensemble 1 Unit
260-261
UC*
Prerequisite: None.
Laborntoy: 2 hours per week
Acquaintance with standard literature for wind instrument ensemble, with performance opportunities according to the ability of the particular group.

164-165 College Band 1-2 Units
264-265
UC*
Prerequisite: None.
Laboratory: 3 hours per week per unit.
Study of band literature, stressing the finest of concert literature for band use.

168ABCD Wind Instrument Ensemble 1 Unit
UC*
Prerequisite: Ability to match pitches and perform basic manual skills. Courses must be taken in sequence.
Laboratory: 2 hours per week
Study of the literature available for the particular ensemble under consideration; studies in appreciation and performance of standard works.

169ABCD College Concert Band 1-2 Units
UC
Prerequisite: Intermediate or higher performance level on a traditional band instrument. Courses must be taken in sequence.
Laboratory: 2-4 hours per week
Study of band literature, including training and experience in traditional and contemporary repertoire. Previous band experience necessary.

171ABCD Stage Band 1-2 Units
UC
Prerequisite: Intermediate or higher performance level on a traditional "Big Band" instrument. Courses must he taken in sequence.
Laboratory: 2 hours per week per unit
Study of the techniques and repertoire of the current jazz and stage band.

174ABCD Jazz Ensemble 2 Units
UC
Prerequisite: Advanced performance level on a traditional "Big Band" instrument. Courses must be taken in sequence.
Laboratory: 4 hours per week
Study of new jazz literature, style, and interpretation. Advanced level performance course; performance required.

175ABCD Jazz Band Workshop 2 Units
UC*
Prerequisite: Advanced performance level on a "Big Band" instrument. Courses must be taken in sequence.
Laboratory: 4 hours per week.
Continued study of new jazz literature style and interpretation. Advanced level performance course; performance required.

180ABCD Rehearsal and Performance 1-2 Units
UC*
Prerequisite: Advanced performance ability on an instrument or voice. Courses must be taken in sequence.
Laboratory: 2 hours per week per unit
Preparation and public performance of musical plays, operettas, operas, and/or oratorios for both vocalists and instrumentalists.

184ABCD Broadway Musical Production 2 Units
Prerequisite: Audition. Courses must be taken in sequence.
Laborntoy: 4 hours per week
Designed to train and/or coach students in the presentation of musical theatre performances, emphasizing proper solo and ensemble vocal techniques as they pertain to the musical theatre.

OCEANOGRAPHY

101 Elements of Oceanography 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the four major aspects of oceanography: physical, geological, chemical, and biological.

160-161-162 Introduction to Field Oceanography 2 Units
Prerequisite: A college course in life or physical sciences with a grade of "C" or better. Courses need not be taken in sequence.
Lecture: 1 hour per week and
Laboratory: 3 hours per week
Demonstration and practice of field techniques in oceanography, including water

sampling and testing for salinity, temperature, oxygen and pH. Collection and analysis of plankton and nekton samples, use of taxonomic keys, and a study of the geologic processes of the marine environment.

OFFICE ADMINISTRATION

009ABC Office Skills Lab 1-3 Units
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 3-9 hours per week
Individualized instruction designed to assist students improve office skills; assistance with equipment and materials provided.

050ABCD Office Experience 1-3 Units
Prerequisite: OA 100. Courses must be taken in sequence.
Lecture: 1 hour per week
Laboratory: 3-6 hours per week
On-the-job training through stenographic, clerical, and receptionist work on campus.

070 Word Processing Applications: Displaywrite 3 1 Unit
Prerequisite: OA 100 or OA 116 or equivalent.
Lecture: 1½ hours per week
Laboratory: 1½ hours per week (8 weeks)
Development of marketable skills in word processing using IBM microcomputers or compatible hardware and DISPLAYWRITE 3 software. Training in basic and advanced functions such as document creation and editing, advanced moving, spell-checking, merging, math, and keystroke macros.

071 Advanced Word Processing Applications: Displaywrite 3 ½ Unit
Prerequisite: OA 070.
Laboratory: 3 hours per week (8 weeks)
Development of marketable skills in word processing using IBM microcomputers or compatible hardware and DISPLAYWRITE 3 software through comprehensive office-simulated applications.

072 Word Processing Applications: Wordperfect 1 Unit
Prerequisite: OA 100 or OA 116 or equivalent.
Lecture: 1½ hours per week
Laboratory: 1½ hours per week (8 weeks)
Development of marketable skills in word processing using IBM microcomputers or compatible hardware and WORDPERFECT software. Training in basic and advanced functions such as document creation and editing, advanced moving, spell- and thesaurus-checking, merging, math, and keystroke macros.

073 Advanced Word Processing Applications: Wordperfect ½ Unit
Prerequisite: OA 072.
Laboratory: 3 hours per week (8 weeks)
Development of marketable skills in word processing using IBM microcomputers or compatible hardware and WORDPERFECT software through comprehensive office-simulated applications.

090ABCD Selected Topics in Office Administration ½-3 Units
Prerequisite: None. Courses must he taken in sequence.
Lecture: ½-3 hours per week
Study of topics selected to acquaint the office worker with the latest techniques, skills and procedures in the rapidly changing business world.

098 Office Administration Work Experience 1-4 Units
Prerequisite: None.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Laboratory: 5-20 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appropriate occupational goals.

100A Beginning Typewriting (Part I) 1-3 Units
Prerequisite: None.
Lecture: 1-2 hours per week and/or
Laborntoy: 3-6 hours per week
Fundamentals of typewriting: functions of machine, use of keyboard, speed and accuracy drills, rough copy, and simple tabulation.

100B Beginning Typewriting (Part II) 1-3 Units
Prerequisite: OA 100A.
Lecture: 1-2 hours per week and/or
Laboratory: 3-6 hours per week
Continuation of OA 100A. At the conclusion of 100B, the student should have developed a minimum typing speed of 30 words a minute.

100 Beginning Typewriting 1-3 Units
Prerequisite: None.
Lecture: 1-2 hours per week and/or

Laboratory: 3-6 hours per week

Fundamentals of typewriting: functions of machine, use of keyboard, speed and accuracy drills, rough copy, and simple tabulation. Designed to develop a minimum typing speed of 30 words a minute.

101A Intermediate Typewriting 1-3 Units
Prerequisite: OA 100 or OA 100B or ability to type at least 30 net words a minute.
Lecture: 1-7 hours per week and/or
Laboratory: 3-6 hours per week

Procedures for arranging and tabulating materials, the use of carbons, continued emphasis on accuracy and speed, preparation of receipts, letters, and a large value of other diversified business forms.

101B Intermediate Typewriting 1-3 Units
Prerequisite: OA 101B
Lecture: 1-7 hours per week and/or
Laboratory: 3-6 hours per week

Continuation of OA 101A. At the conclusion of 101B, the student should have developed a minimum typing speed of 40 words a minute.

101 Intermediate Typewriting 1-3 Units
Prerequisite: OA 100 or OA 100B or ability to type at least 30 net words a minute.
Lecture: 1-2 hours per week and/or
Laboratory: 3-6 hours per week

Procedures tor arranging and tabulating materials, the use of carbons, continued emphasis on accuracy and speed, preparation of receipts, letters, and a large value of other diversified husiness forms. Designed to develop a minimum typing speed of 40 words a minute.

102A Advanced Typewriting (Part I) 1-3 Units
Prerequisite: OA 101B or OA 101 or ability to type at least 40 net words a minute.
Lecture: 1-2 hours per week and/or
Laboratory: 3-6 hours per week

Development of speed and accuracy to meet the most exacting requirements of business; preparation of legal papers, financial reports, statistical material, and advanced letter production.

102B Advanced Typewriting (Part II) 1-3 Units
Prerequisite: OA 102A.
Lecture: 1-2 hours per week and/or
Laboratory: 3-6 hours per week

Continuation of OA 102A. At the conclusion of 1028, the student should have developed a typing speed of 50 words per minute.

102 Advanced Typewriting 1-3 Units
Prerequisite: OA 101B or OA 101 or ability to type at least 40 net words a minute.
Lecture: 1-7 hours per week and/or
Laboratory: 3-6 hours per week

Development of speed and accuracy to meet the most exacting requirements of business; preparation of legal papers, financial reports, statistical material, and advanced letter production. Designed to develop a minimum typing speed of 50 words per minute.

110 Beginning Word/Information Processing Concepts 3 Units
Prerequisite: OA 100 or OA 116 or equivalent.
Corequisite: 070 and OA 071.
Lecture: 3 hours per week

Study of changes in the modern office through the use of automated equipment; emphasis on the organization of word processing from input through distribution; examination of basic machine operations, transcription techniques for word processing, and basic language arts skills.

111 Intermediate Word/Information Processing Concepts 3 Units
Prerequisite: OA 110.
Corequisite: OA 077 and OA 073.
Lecture: 3 hours per week

Development of marketable skills in word processing; advanced techniques in machine transcription for word processing; language arts/communication skills. Emphasis on information processing in the electronic office from hardware and systems configuration to software and communications systems.

112 Advanced Word/Information Processing Concepts 3 Units
Prerequisite: OA 111.
Lecture: 3 hours per week

Development of advanced marketable skills in word processing concepts, including administrative and management responsibilities in selecting and staffing systems; an understanding of the total word/information processing environment and how it affects employees and society.

116 Keyboarding 1-3 Units
Prerequisite: None.
Lecture: 1-2 hours per week
Loborntoy: 1-3 hours per week

Fundamentals of basic keyboarding entering of alphabetic, numeric, and symbol information on a keyboard quickly and accurately; understanding the basic vocabulary and concepts used in keyboarding operations for entering and retrieving information.

120A Beginning Gregg Shorthand (Part I) 3-6 Units
Prerequisite: OA 100 or equivalent.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Theory and basic principles of Gregg shorthand; practice and vocabulary development.

120B Beginning Gregg Shorthand (Part II) 3-6 Units
Prerequisite: OA 120A.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Continuation of OA 120A. At the conclusion of 1208, the student should have attained a dictation speed on new material of 60 words a minute for three minutes.

120 Beginning Gregg Shorthand 3-6 Units
Prerequisite: OA 100 or equivalent.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Theory and basic principles of Gregg shorthand; practice and vocabulary development to attain a dictation speed on new material of 60 words a minute for three minutes upon completion of six units.

121A Intermediate Gregg Shorthand (Part I) 3-6 Units
Prerequisite: OA 120 or OA 1208 with a grade of "C" or better.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Principles of elementary shorthand applied to writing of sentences and letter from dictation. Intensive review of shorthand fundamentals, vocabulary-building drills, reading material, transcription exercises and phrase-building.

121B Intermediate Gregg Shorthand (Part 11) 3-6 Units
Prerequisite: OA 121A.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Continuation of OA 121A. At the conclusion of 1218, the student should have attained a dictation speed of 80 words a minute for three minutes.

121 Intermediate Gregg Shorthand 3-6 Units
Prerequisite: OA 120 or OA 1208 with a grade of "C" or better.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Principles of elementary shorthand applied to writing of sentences and letters from dictation. Intensive review of shorthand fundamentals, vocabulary-building drills, reading material, transcription exercises, and phrase-building to attain a dictation speed of 80 words a minute for three minutes upon completion of six units.

122A Advanced Dictation and Transcription (Part I) 3-6 Units
Prerequisite: OA 121 or OA 1218 with a grade of "C" or better.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Instruction to develop speed and efficiency in sustained dictation and transcription; specialized vocabularies for business, industrial, and professional fields; review of punctuation and spelling as applied to secretarial usage.

122B Advanced Dictation and Transcription (Part II) 3-6 Units
Prerequisite: OA 122.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Continuation of OA 172A. At the conclusion of 1228, the student should have attained a speed of 100 words per minute for three minutes.

122 Advanced Dictation and Transcription 3-6 Units
Prerequisite: OA 121 or OA 1218 with a grade of "C" or better.
Lecture: 2-5 hours per week
Laboratory: 3 hours per week
Instruction to develop speed and efficiency in sustained dictation and transcription; specialized vocabularies for business, industrial, and professional fields; review of punctuation and spelling as applied to secretarial usage. Students should attain a speed of 100 words per minute for three minutes upon completion of six units.

128 Shorthand Theory Review 3 Units
Prerequisite: Typing speed of 30 words per minute for 5 minutes and OA 120 or equivalent.
Lecture: 3 hours per week

Intensive review of basic theory and brief forms for students with some knowledge of shorthand.

135ABC Advanced Shorthand and Typewriting Laboratory 1-2 Units
Prerequisites: OA 101 and 121 or 121B with a grade of "C" or better. Courses must be taken in sequence.
Laboratory: 3-6 hours per week
Instruction for the student who has good shorthand and typewriting skills but would like to increase speed and efficiency.

130 Records Management 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Examination of the problems encountered in managing records; exploration of the principles governing what records to keep, how to store them, how to find them quickly when needed, and how to apply the criteria for determining their disposition or retention; study of the rules for indexing and finding materials by the following methods: alphabetic, geographic, numeric and subject; simulated office correspondence to reinforce understanding of these rules.

140AB General Office Procedures 3-6 Units
Prerequisite: OA 100 or equivalent.
Lecture: 2½-5 hours per week
Laboratory: 1½-3 hours per week
Knowledge and experience in office procedures and secretarial skills necessary for success in modem office; emphasis on instruction and experience in the use of the dictaphone, electric typewriter, ditto and mimeograph machines, and word processing machines.

144 Business English 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Review of basic grammar and the principles of effective English usage as applied in business, including skills and techniques of written communication. Written composition includes various types of business letters, memoranda and reports. (Also listed as English 144.)

145 Business Communications 3 Units
Prerequisite: OA 144.
Lecture: 3 hours per week
Study of oral and written communication skills essential to the business/industrial setting.

146 Human Relations in the Office Environment 1-3 Units
Prerequisite: None.
Lecture: 1-3 hours per week
Examination of the human relations problems encountered in the business office, especially those concerning the new employee, in dealing with employers, with peers, and with the general public.

150 Legal Office Procedures 3 Units
Prerequisite: OA 100 or equivalent.
Lecture: 3 hours per week
Specialized training for the legal office assistant; legal terminology, legal correspondence, professional relations with employers and clients, California Codes and court rules, and preparation and handling of legal forms.

151 Legal Terminology and Transcription 3 Units
Prerequisites: OA 100 and OA 120 or 1208 or equivalent.
Lecture: 2½ hours per week
Laboratory: 1 hour per week
Intensive training in legal terminology, legal dictation and transcription, and the specialized duties of the secretary employed in a legal office.

160 Medical Office Procedures 3 Units
Prerequisite: OA 100 or equivalent.
Lecture: 3 hours per week
Specialized training for the medical office assistant through the use of simulation techniques of medical office activities, including handling appointments and correspondence; interpreting, preparing, and maintaining medical office and hospital records; personal conduct, ethics, and public relations.

161 Medical Shorthand 3 Units
Prerequisites: OA 100 and OA 120 or 120B or equivalent.
Lecture: 2½ hours per week
Laboratory: 1½ hours per week
Intensive training in medical vocabulary, medical dictation and transcription, and the specialized duties of the secretary employed in a medical office.

162 Medical Terminology and Transcription I 1-6 Units
Prerequisite: OA 100 or equivalent.
Lecture: l-6 hours per week
Laboratory: 1 hour per week
Instruction in medical terminology as it relates to transcription of medical records in all phases, including history and physical examination reports, radiology reports, operation reports, pathology reports including autopsies,

and discharge summary reports; transcription of reports, taking each type of report separately: e.g., history and physical examination first, radiology second, etc.

163 Medical Terminology and Transcription II 1-6 Units
Prerequisite: OA 162.
Lecture: 1-6 hours per week
Laborntoy: 1 hour per week

Instruction in medical terminology as it relates to transcription of medical records in all phases, including all the specialities in the medical field, with particular emphasis on laboratory data, surgery terminology, and pharmaceuticals; documentation of new terminology; simulation of "on-the-job" training.

PHILOSOPHY

101 Introduction to Philosophy 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

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 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

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
Prerequisite: None.
Lecture: 3 hours per week

Study of moral philosophy, with analysis of the basic ideas and principles involved in moral conduct, including the concepts of good, right, obligation, and conscience. Problems of truthfulness, race, sex, marriage, and war or peace are examined in relationship to moral philosophy.

190-191 Selected Studies in Philosophy 3 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week

Introduction to philosophical thinking through study of a specific philosophical theme, period, or culture. The specific emphasis of the course is announced in the class schedule for semesters it is taught.

246ABC Special Problems in Philosophy 1 Unit
247ABC 2 Units
UC
Prerequisite: Completion of/or concurrent enrollment in a philosophy course.
Laboratory: 3 hours per week per unit

Independent projects for selected students with a special interest in philosophy, involving assigned readings, papers, and conferences.

PHYSICAL EDUCATION

INDIVIDUAL AND GROUP ACTIVITIES

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 lifelong enjoyment of leisure time.

104ABCD Pre-Aerobics ½-1 Unit
Prerequisite: None. Courses must be taken in sequence.

Provides instruction in the basic skills and techniques of pre-aerobics. Each course is designed to improve physical fitness.

AEROBIC EXERCISE TO MUSIC

UC*
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

105A Introductory Low Impact Aerobics ½-1 Unit
1058 Beginning Low Impact Aerobics ½-1 Unit
105C Intermediate Low Impact Aerobics ½-1 Unit
105D Advanced Low Impact Aerobics ½-1 Unit

BODY BUILDING

UC
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

108A	Introductory Body Building	½-1 Unit
108B	Beginning Body Building	½-1 Unit
108C	Intermediate Body Building	½-1 Unit
108D	Advanced Body Building	½-1 Unit

BODY CONDITIONING

UC
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

112A	Introductory Body Conditioning	½-1 Unit
112B	Beginning Body Conditioning	½-1 Unit
112C	Intermediate Body Conditioning	½-1 Unit
112D	Advanced Body Conditioning	½-1 Unit

BOWLING

UC
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

116A	Introductory Bowling	½-1 Unit
116B	Beginning Bowling	½-1 Unit
116C	Intermediate Bowling	½-1 Unit
116D	Advanced Bowling	½-1 Unit

GOLF

UC*
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

120A	Introductory Golf	½-1 Unit
120B	Beginning Golf	½-1 Unit
120C	Intermediate Golf	½-1 Unit
120D	Advanced Golf	½-1 Unit

HANDBALL/ RACQUETBALL

UC
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

145A	Introductory Handball/Racquetball	½-1 Unit
145B	Beginning Handball/Racquetball	½-1 Unit
145C	Intermediate Handball/Racquetball	½-1 Unit
145D	Advanced Handball/Racquetball	½-1 Unit

TENNIS

UC*
Courses must be taken in sequence.
Laboratory: 1½-3 hours per week

148A	Introductory Tennis	½-1 Unit
148B	Beginning Tennis	½-1 Unit
148C	Intermediate Tennis	½-1 Unit
148D	Advanced Tennis	½-1 Unit

TEAM ACTIVITIES

UC

130ABCD Team Sports ½-1 Unit
(Co-Ed)
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 1½-3 hours per week
(Specific sport announced in class schedule.)

PERSONAL ACTIVITIES

262 Body Conditioning and Nutrition 1-3 Units
UC
Prerequisite: None.
Lecture: 1 hour per week and/or
Laboratory: 2-6 hours per week
Conditioning for strength, flexibility, and. endurance, as well as lectures on nutrition. Coed class.

263 Nutrition and Health 3 Units
Prerequisite: None.
Lecture: 3 hours per week

An introductory course in nutrition covering basic topics ranging from digestion and absorption metabolism to herbology and holistic health. Diet therapy and menu planning will be discussed.

PHYSICS

100 Introduction to Physics 4 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Introduction to the ideas, concepts, and theories of physics; a nonmathematical course.

106 The Mechanical Universe, an Introduction to Physics 3 Units
UC
Prerequisite: Elementary Algebra.
Lecture: 3 hours per week
Introduction to the concepts, techniques, and historical development of physics, using algebra. Topics covered include the laws of motion, energy, momentum, forces, rotation, and thermodynamics.

107 The Mechanical Universe Laboratory 1 Unit
UC
Prerequisite: Elementary Algebra.
Corequisite: Physics 106.
Laboratory: 3 hours per week
Laboratory course to accompany Physics 106. The student will conduct experiments in motion forces, momentum, energy, rotation, and thermodynamics.

108AB Physics in the Classroom 3 Units
Prerequisite: None. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 1 hour per week
Overview of physics, including mechanics, energy, heat, sound, light, electricity, and the structure of matter, with particular emphasis on the use of physics in the classroom. This course is designed to introduce teachers and others interested in education to physics and to provide insight on ways to use physics in the classroom in elementary and junior high schools.

110-111 General Physics 4 Units
UC*
Prerequisite: High school Physics or Physics 100 or Physics 108AB and intermediate algebra and trigonometry. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Introduction to mechanics, heat waves, optics, electricity, and atomic and nuclear physics.

200-201 Physics 5 Units
UC
Prerequisite: High school Physics or Physics 100. Courses must be taken in sequence.
Prerequisite or Corequisite: For 200, Math 152; for 201, Math 251
Lecture: 4 hours per week
Laboratory: 3 hours per week
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.

246AB Special Problems in Physics 1 Unit
247AB 2 Units
UC
Prerequisite: One semester of college physics.
Laboratory: 3-6 hours per week
Laboratory projects designed for students with a special interest in physics.

POLITICAL SCIENCE

100 American Politics 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Examination and analysis of the basic structures of the government of the United States (national, state, and local) and the major issues, both foreign and domestic, that confront the American body politic. Course designed to meet the state requirement in United States and California constitution and government.

101 Contemporary Political Issues 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to political studies through an examination and analysis of basic questions and problems dealing with contemporary political life, including such main topics as government, authority, power, law, right, war, revolution, racial and class conflict and contemporary issues

of public policy. Designed to meet the state requirement in United States and California constitution and government.

PSYCHOLOGY

055 Orientation and Career/Life Planning 1 Unit
Prerequisite: None.
Lecture: 1 hour per week
Orientation to the philosophy, regulations, and services at Crafton Hills College, in order to assist students in understanding the scope and function of community college education. Also includes interest, aptitude, and work values and exercises, designed to prepare students to assume the responsibility for their educational and career/life planning. Required of students entering college for the first time.

058ABCD Career Development ¼-½ Unit
Prerequisite: None.
Lecture: 4-8 hours per semester
Short-term course, offered at various times during the semester. Series of interest inventories and aptitude tests, with interpretation by counselors, to help the student with educational and vocational planning.

065 Self-confidence for Successful Achievement 1-3 Units
Prerequisite: None.
Lecture: 1-3 hours per week
Examination of the thinking habits involved in common anxiety-causing situations and some alternative thought patterns which can lead to increasing self-understanding and self-confidence. Study of specific techniques for achieving academic success in the postsecondary educational environment.

080 Math Without Fear ½ Unit
Prerequisite: None.
Lecture: ½ hour per week
Laboratory: ½ hour per week
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. (See Mathematics 080.)

090ABCD Selected Topics in Applied Psychology 1-3 Units
Prerequisite: None.
Lecture: 1-3 hours per week
Examination of selected topics of special interest to students in the field of applied psychology. Specific topics will be announced in the class schedule when this course is taught.

100 General Psychology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the nature and scope of psychology as a science, including the principles of perception, thinking, learning, personality, emotion, motivation, and psychological testing, and covering the essential features of the biological and neurological bases of behavior.

101 Experimental Psychology 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Advanced study of the principles of general psychology, emphasizing the experimental method and the psychological bases of behavior.

102 Humanistic Psychology 3 Units
UC*
Prerequisite: Psychology 100 or equivalent.
Lecture: 3 hours per week
Human-centered approach to the study of general psychology, with primary emphasis upon the whole person and selected topics such as creativity, self-actualization, growth, love, loneliness, and being.

103 Psychology of Personality 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Study of the factors that contribute to the development of personality, in order to help the individual better understand his own behavior as well as the behavior of others.

110 Abnormal Psychology 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Survey of the field of mental and emotional disturbances, emphasizing causes and types of disorders. Special attention is paid to the variety of suffering in our culture and the issues raised over classification of normal and abnormal behavior.

112 Child and Adolescent Psychology 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Survey of the psychological development of the normal individual from infancy through adolescence, emphasizing critical areas of adolescent behavior.

116 Psychology of Sex Roles 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
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
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Study of selected factors in human sexual behavior. Emphasis on psychology of sex. Analysis of assumptions and attitudes toward human sexuality.

119AB Selected Topics in Psychology 3 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week
Examination of selected topics of special interest to students in the field of psychology, on an occasional basis. Specific topics will be announced in the class schedule when this course is taught.

132 Interviewing and Counseling Techniques 3 Units
Prerequisite: Psychology 100.
Lecture: 3 hours per week
Methods of interviewing and counseling for the student preparing for public service agency employment.

133 Group Dynamics 3 Units
UC
Prerequisite: Psychology 100.
Lecture: 3 hours per week
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.

158 Career and Life Planning 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Series of career guidance activities, including personal assessment, interpretation, exploration, and planning, designed to assist students with their educational, vocational, and life planning.

246AB Special Problems in Psychology 1 Unit
247AB 2 Units
UC*
Prerequisite: Completion of or concurrent enrollment in a Psychology course.
Laboratory: 3 hours per week per unit
Independent projects for students with a special interest in psychology, involving assigned readings, research, and conferences.

RADIOLOGIC TECHNOLOGY

100 Introduction to Radiologic Technology ¾ Unit
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisite: Radiology 101, 102, 103, 104, 105, 106, 115A.
Lecture: 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 Radiologist ½ Unit
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 102, 103, 104, 105, 106, 115A.
Lecture: 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 Technology 1½ Units
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 101, 103, 104, 105,

106, 115A.
Lecture: 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 1½ Units
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisite: Radiology 100. 101, 102, 104, 105, 106, 115A.
Lecture: 74 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 1½ Units
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 101, 102, 103, 105, 106, 115A.
Lecture: 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 1½ Units
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 101, 102, 103, 104. 106, 115A.
Lecture: 24 hours per semester
Lecture: of basic human anatomy and physiology pertinent to Radiology.

106 Radiographic Positioning Lab I ½ Unit
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 101, 102, 103, 104, 105, 115A.
Laboratory: 24 hours per semester
Practice in positioning various anatomical parts for specific radiographic examinations.

107 Basic Radiologic Medical Techniques 1¼ Units
Prerequisites: Radiology 100, 101. 102, 103, 104, 105, 106, 115A
Corequisites: Radiology 108, 109, 110, 111, 112, 113, 114, 115B.
Lecture: 22 hours per semester
Study of basic nursing techniques and methods of patient care for Radiologic Technologists.

108 Radiation Protection I 1¼ Units
Prerequisite: Radiology 100, 101, 102, 103, 104. 105, 106, 115A.
Corequisites: Radiology 107, 109, 110, 111, 112, 113, 114, 115B.
Lecture: 22 hours per semester
Study of the basic principles and application of radiation protection, physics, and radiation monitoring devices.

109 Radiologic Physics II 1¼ Units
Prerequisite: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 110, 111, 112, 113, 114, 115B.
Lecture: 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 1¼ Units
Prerequisite: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 109, 111, 112, 113, 114, 115B.
Lecture: 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 1¼ Units
Prerequisites: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 109, 110, 112, 113, 114, 115B.
Lecture: 22 hours per semester
Introduction to analyzing radiographic examinations with emphasis on improving film quality and using proper identification labels.

112 Radiographic Positioning II 1¼ Units
Prerequisite: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 109, 110, 111, 113, 114, 115B.
Lecture: 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 the vertebral column.

113 Radiographic Anatomy/Physiology II 1¼ Units
Prerequisite: Radiology 100, 101, 102. 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 109, 110, 111, 112, 114, 115B.
Lecture: 22 hours per semester
Study of human anatomy and physiology pertinent to radiology.

114 Radiographic Positioning Lab II ½ Unit
Prerequisite: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108, 109, 110, 111, 112, 113, 115B.
Laboratory: 24 hours per semester
Practice of positioning anatomical parts for specific radiographic examinations.

115A Radiographic Clinic I 11¼ Units
Prerequisite: Must be pre-selected into the X-Ray Technology program.
Corequisites: Radiology 100, 101, 102, 103, 104, 105, 106.
Clinic: 900 hours per semester
Observation and supervised clinical experience; emphasis on the development of primary basic skills in radiologic technology.

115B. Radiographic Clinic II 10½ Units
Prerequisite: Radiology 100, 101, 102, 103, 104, 105, 106, 115A.
Corequisites: Radiology 107, 108. 109, 110, 111, 112, 113, 114.
Clinic: 840 hours per semester
Practice and development of basic radiographic skills within a hospital environment.

200 Radiation Protection II 1½ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 201, 202, 203, 204, 205, 206, 213A.
Lecture: 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 1½ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 202, 203, 204, 205, 206, 213A

Lecture:. 24 hours per semester
Study of the principles of radiographic exposure methods and procedures pertaining to radiographic technology.

202 Radiographic Film Critique II 1½ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 201, 203, 204, 205, 206, 213A.
Lecture: 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 1½ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 201, 202, 204, 205, 206, 213A.
Lecture: 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 1½ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 201, 202, 203, 205, 206, 213A.
Lecture: 24 hours per semester
Study of human anatomy and physiology pertinent to radiology.

205 Radiographic Exposure Lab ½ Unit
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 1158.
Corequisites: Radiology 200, 201, 202, 203, 204, 206, 213A.
Laboratory: 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.

206 Radiologic Physics Lab ½ Unit
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 201, 202, 203, 204, 205, 213A.
Laboratory: 24 hours per semester
Demonstration and experiments pertaining to the fundamentals of radiographic physics and X-ray production and control.

207 Radiographic Imaging 1¼ Units
Prerequisites: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 208, 209, 210, 211, 212, 2138.
Lecture: 22 hours per semester
Study of the history and principles of radiology including nuclear medicine, clinical ultrasonography, tomography, radiation therapy, computer tomography, and other imaging modalities.

208 Registry Review Test in Radiology 2¾ Units
Prerequisites: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 209, 210, 211, 212, 213B.
Lecture: 44 hours per semester
Review and testing of all Radiologic Technology classes in preparation for board examination.

209 Radiographic Film Critique III - Pathology 1¼ Units
Prerequisite: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 208, 210, 211, 212, 2138.
Lecture: 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 1¼ Units
Prerequisite: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 208, 209, 211, 212, 2138.
Lecture: 22 hours per semester
Study and demonstration of various anatomical positions necessary to demonstrate specific anatomical parts for diagnostic evaluations; emphasis on osseious structures of the face; genitourinary and gastrointestinal systems.

211 Radiographic Anatomy/Physiology IV 1¼ Units
Prerequisite: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 208, 209, 210, 212, 2138.
Lecture: 22 hours per semester.
Advanced study and review of human anatomy and physiology pertinent to radiology.

212 Special Procedures in Radiology 1¼ Units
Prerequisite: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 208, 209, 210, 211, 2138.
Lecture: 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 10¾ Units
Prerequisite: Radiology 107, 108, 109, 110, 111, 112, 113, 114, 115B.
Corequisites: Radiology 200, 201, 202, 203, 204, 205, 206.
Clinic: 872 hours per semester
Advanced clinical experience; emphasis on further development of skills in radiologic technology.

213B Radiographic Clinic IV 11 Units
Prerequisite: Radiology 200, 201, 202, 203, 204, 205, 206, 213A.
Corequisites: Radiology 207, 208, 209, 210, 211, 212.
Clinic; 884 hours per semester
Advanced clinical experience; emphasis on perfecting learned skills and techniques of radiography.

READING AND STUDY SKILLS

060ABCD Study Techniques ¼ Unit
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 12 hours per semester
Participation in individually planned programs designed to help students master basic learning skills necessary for successful achievement in college classes. Also designed to prepare advanced students to become effective peer tutors. (A student may receive a maximum of 12 units of credit for any combination of Reading and Study Skills courses.)

061ABCD ½ Unit
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 24 hours per semester
(See description under 060ABCD.)

062ABCD 1 Unit
Prerequisite: None. Courses must be taken in sequence.
Lecture: 48 hours Summer Session only) (3 Units)
Laboratory: 48 hours Fall and Spring semesters
(See description under 060ABCD.)

063ABCD 2 Units
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 96 hours per semester
(See description under 060ABCD.)

064ABCD 3 Units
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 144 hours per semester
(See description under 060ABCD.)

071 Developmental Reading 3 Units
Prerequisite: None. Courses must be taken in sequence.
Lecture: 48 hours per semester
Development of college reading skills - retention, comprehension, and vocabulary development - utilizing individualized and/or small-group instruction, based on the student's score on the Nelson-Denny Reading Test. (A student may receive a maximum of twelve units of credit for courses in Reading and Study Skills.)

072 3 Units
Prerequisite: None.
Lecture: 48 hours per semester
(See description under 071.)

073 3 Units
Prerequisite: None.
Lecture: 48 hours per semester
(See description under 071.)

074 3 Units
Prerequisite: None.
Lecture: 48 hours per semester
(See description under 071.)

075ABCD 1 Unit
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 48 hours per semester
Supervision of assigned activities closely coordinated to ensure maximum improvement in reading comprehension.

076 2 Units
Prerequisite: None.
Laboratory: 96 hours per semester
(See description under 075ABCD.)

077 3 Units
Prerequisite: None.
Laboratory: 144 hours per semester
(See description under 075ABCD.)

REAL ESTATE

005 License Examination Preparation 3 Units
Prerequisite: Real Estate 100 recommended.
Lecture: 3 hours per week
Review of the fundamentals, basic laws, and principles of California real estate, with emphasis on successful examination techniques. The course will be of assistance to those preparing for the Real Estate sales license examination,

085-092ABCD Selected Topics in Real Estate ⅛-4 Units
Prerequisite: None.
Lecture: ⅛-4 hours per week
Study of topics required to meet California Department of Real Estate license renewal requirements.

100 Real Estate Principles 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the basic laws and principles of California real estate; gives understanding, background, and terminology necessary for advanced study in specialized courses. Will be of assistance to those preparing for the Real Estate sales license examination.

101 Basic Escrow Procedures 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Methods and techniques of escrow procedures for various types of business transactions, with emphasis on real estate, including the legal and ethical responsibilities of persons engaged in escrow and real estate work.

200 Real Estate Practice 3 Units
Prerequisite: Real Estate 100 or Real Estate License.
Lecture: 3 hours per week
Day-to-day operations in real estate, overview of brokerage procedures and the various roles of the employee. Mandatory prerequisite to Real Estate Broker's examination.

205 Real Estate Appraisal: Residential 3 Units
Prerequisite: Real Estate 100 or Real Estate License.

Lecture: 3 hours per week

Purposes of appraisals, appraisal process and the different methods, approaches and techniques used to determine the value of various types of property. Mandatory prerequisite to Real Estate Broker‘s examination.

210 Real Estate Finance 3 Units
Prerequisite: Real Estate 100 or Real Estate License.
Lecture: 3 hours per week

Analysis of real estate financing, including lending policies and problems in financing transactions in residential, apartment, commercial and special purpose properties, emphasizing methods of financing properties. Mandatory prerequisite to Real Estate Broker’s examination.

215 Legal Aspects of Real Estate I 3 Units
Prerequisite: Real Estate 100 or Real Estate License.
Lecture: 3 hours per week

Study of California real estate law, with emphasis on its application in the real estate brokerage and related fields. Mandatory prerequisite to the Real Estate Broker’s examination.

230 Real Estate Economics 3 Units
Prerequisite: Real Estate 100 and 200; Real Estate License.
Lecture: 3 hours per week

Intensive study of factors which influence changes in real estate values as an aid to brokers and sales personnel.

RELIGIOUS STUDIES

100 Introduction to Religious Studies 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Introduction to religion, emphasizing religious experience, the origins and functions of religion, and man’s religious mode of expression, drawing on Eastern and Western, ancient and modern religious phenomena to help in identifying and understanding matters of religious concern.

101 Introduction to World Religions 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Origins, beliefs, practices, historical development, and contemporary concerns of the major world religions, with particular attention to the Hindu, Buddhist, Taoist, Confucian, Judaic, Christian, and Islamic traditions.

135 Religion in America 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Study of the principal figures, groups, 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 Black religious experience, Catholic-Protestant - Jew, and contemporary religious phenomena. (Also listed as History 135.)

175 Literature and Religion of the Bible 3 Units
UC
Prerequisite: English 101.
Lecture: 3 hours per week

Study of the English Bible as literature and as religion, including an examination of the types of literature found in the Bible, the historical and religious context in which the literature was developed, and an extensive reading of the two testaments. (Also listed as English 175.)

246ABC Special Problems in Religious Studies 1 Unit
247ABC 2 Units
UC*
Prerequisite or Corequisite: Any course in Religious Studies.
Laboratory: 3 hours per week per unit

Independent projects for students with a special interest in religious studies, involving assigned readings, research, and conferences.

RESPIRATORY CARE

050 Introduction to Respiratory Care 2 Units
Prerequisite: Acceptance into Respiratory Therapy program.
Lecture: 32 hours per semester

Orientation to the field of Respiratory Care; introduction to the professional organizations, the regulatory bodies, and the policies that govern respiratory treatment.

101 Fundamentals of Respiratory Care I 4 Units
Prerequisite: Resp 050, Anat 101.
Corequisites: Resp 102, 103, 104.
Lecture: 4 hours per week
Study of the regulations for medical gases; introduction to basic respiratory physiology and various treatment modalities.

102 Fundamentals of Respiratory Care Skills I 11 Units
Prerequisite: Resp 050, Anat 101.
Corequisites: Resp 101, 103, 104.
Lecture: 132 hours per semester and
Laboratory: 132 hours per semester
Practical skills for Respiratory Care at a basic level, including oxygen and other medical gas handling and delivery modalities, humidification, application, hyper-inflation therapy devices and airway management and other basic pre-clinical skills simulations.

103 Pulmonary Medical Terminology 3 Units
Prerequisite: Resp 050.
Corequisites: Resp 101, 102, 104.
Lecture: 3 hours per week
Introduction to general medical terminology, followed by an intense study of terms specific to pulmonary medicine.

104 Respiratory Care Clinical Application I 4 Units
Prerequisite: Resp 050, Anat 101.
Corequisites: Resp 101, 102, 103.
Lecture: 25 hours per semester and
Clinic: 175 hours per semester
Clinical application of skills learned in the lab and theory classes. The course will follow level I part A in the clinical syllabus.

105 Fundamentals of Respiratory Care II 4 Units
Prerequisites: Completion of Resp 101, 102, 103, 104, with a grade of C or better.
Corequisites: Resp 106, 108, 110.
Lecture: 4 hours per week
Theory of compressed gases, gas laws and other physical principles; regulators and flow meters, methods of administering oxygen and other medical gases, humidification and aerosol modalities and hyper-inflation equipment procedures; basics of controlled mechanical ventilation and airway care and other critical care modalities.

106 Fundamentals of Respiratory Care Skills II 5 Units
Prerequisites: Completion of Resp 101, 102, 103, 104, with a grade of C or better.
Corequisites: Resp 105, 108, 110.
Lecture: 4 hours per week
Laboratory: 4 hours per week
Practice of laboratory skills for completion of clinical stimulation demonstrations such as blood gas medicine maintenance and operation, advanced hyper-inflation therapy skills, continuous mechanical ventilation skills, and advanced critical care skills.

108 Respiratory Care Clinical Application II 5½ Units
Prerequisite: Completion of Resp 101, 102, 103, 104, with a grade of C or better.
Corequisites: Resp 105, 106, 110.
Lecture: 40 hours per semester and
Clinic: 240 hours per semester
Clinical application of skills required in the second skills laboratory (106) and the second semester of Respiratory Care Theory (105). This course will follow level 1 part B in the clinical syllabus.

110 Clinical Medicine I 2 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, with a grade of C or better.
Corequisites: Resp 105, 106, 108.
Lecture: 2 hours per week
Study of clinical medicine, using local physicians to present respiratory-related disease processes through a combinatlon of lecture and case presentation.

115ABCD Respiratory Care: Supervision and In-Service Training 1 Unit
Prerequisite: None.
Lecture: 12 hours per semester
Laboratory: 20 hours per semester
In-senice training for Respiratory Therapists in the areas of supervision of students in the clinic facilities and current topics of interest in the field of Respiratory Therapy.

201 Advanced Theory of Respiratory Care I 4 Units
Prerequisites: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110 with a grade of C or better.
Corequisites: Resp 202, 203, 204, 205.
Lecture: 4 hours per week
Advanced theory and procedures in the areas

of oxygen administration, humidity of aerosol therapies, airway management, department organization and management, medical legal aspects of Respiratory Care, and respiratory rehabilitation/home care.

202 Advanced Respiratory Care Skills Lab I 4 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110 with a grade of C or better.
Corequisites: Resp 201, 203, 204, 205.
Lecture: 2 hours per week
Laboratory: 6 hours per week

Advanced laboratory procedures that follow the clinical syllabus outlines for level II parts A and B, including pulmonary function, neonatal and pediatric care, advanced mechanical ventilation techniques and weaning procedures, Swan-Ganz and other arterial monitoring devices, cardiopulmonary stress and metabolic measurements.

203 Physiologic Basis of Respiratory Disease I 5 Units
Prerequisites: Completion of Resp 101, 102, 104, 105, 106, 108. 110 with a grade of C or better.
Corequisites: Resp 201, 202, 204, 205.
Lecture: 5 hours per week

Presentation of applied cardiopulmonary, renal and neuro pathophysiology related to the diagnosis and treatment of diseases the therapist will encounter in the clinical setting; use of the case history approach wherever possible in an effort to assist in preparation for National Board Examinations.

204 Advanced Respiratory Care Clinical Application I 6 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110 with a grade of C or better.
Corequisites: Resp 201, 202, 203, 205.
Lecture: 40 hours per semester
Clinic: 240 hours per semester

Practice of advanced clinical skills; clinical syllabus, level II, part A.

205 Introduction to Pharmacology and Drug Therapy 3 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110 with a grade of C or better.
Corequisites: Resp 201, 202, 203, 204.
Lecture; 3 hours per week

Study of the administration of medication and drug therapy in respiratory treatment; discussion of drugs with their actions and interactions; introduction to basic drug mathematics and posology.

206 Advanced Theory Respiratory Care II 4 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110, 201-205 with a grade of C or better.
Corequisites: Resp 207, 208, 211, 212.
Lecture: 4 hours per week

Advanced theory and procedures in the areas of neonatal and pediatric care, pulmonary function application, advanced critical care management and patient assessment techniques.

207 Physiologic Basis of Respiratory Disease II 5 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110, 201-205 with a grade of C or better.
Corequisites: Resp 206, 208, 211 and 212.
Lecture: 5 hours per week

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; use of the case history approach wherever possible in an effort to assist in preparation of National Board Examinations.

208 Advanced Respiratory Care Clinical Application II 5½ Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110, 201-205 with a grade of C or better.
Corequisites: Resp 106, 207, 211, 212.
Lecture: 40 hours per semester
Clinic: 240 hours per semester

Practice of advanced clinical skills, including pulmonary function and stress lab procedures; clinical syllabus level II, part B.

211 Clinical Medicine II 2 Units
Prerequisite: Completion of Resp 101, 102, 103, 104, 105, 106, 108, 110, 201-205 with a grade of C or better.
Corequisites: Resp 206, 207, 208.
Lecture: 2 hours per week

Case history approach to advanced clinical medicine in respiratory-related decision processes.

212 Care of the High Risk Neonate 3 Units
Prerequisite: None.
Lecture: 1-3 hours per week

Provision of specialized skill preparation for application of mechanical and electronic devices

to maintain pulmonary patency of ventilation; procedure preparation and writing by the student; medical-legal-social and psychological aspects will be covered as well as home care plans for after discharge from the N.I.C. unit.

215ABCD Entry Level Examination: Review and Seminar 1-3 Units
Prerequisite: None.
Lecture: 1-3 hours per week
Preparation for the National Board for Respiratory Care's (NBRC) Entry Level Examination; discussion of examination structure and content and review of sample NBRC test questions; self evaluation pre-tests and post-tests will be key features.

216ABCD Advanced Practitioner Written Examination: Review and Seminar 1-3 Units
Prerequisite: None.
Lecture: 1-3 hours per week
Preparation of Respiratory Care Practitioners for the Written Registry Examination; discussion of the structure of the examination; practice sessions, including self-evaluation tests designed by the NBRT.

217ABCD Respiratory Care National Board Review 2 Units
Prerequisite: None.
Laboratory: 4 hours per week
Preparation of Respiratory Care Practitioners for all three NBRC examinations; extensive coverage of the Entry Level, Written Registry and Clinical Simulation exams will be presented; review of pre- and post-testing self-evaluation tests designed by the NBRC.

218 Advanced Respiratory Care Laboratory II 4 Units
Prerequisites: Completion of Respiratory 101, 102, 103, 104, 105, 106, 108, 110 and 201-205 with a grade of "C" or better.
Corequisites: Respiratory 206, 207, 208, 211, 212.
Lecture: 2 hours per week
Laboratory: 6 hours per week
Instruction in sophisticated cardiopulmonary diagnostic procedures; studies in exercise stress testing, metabolic measurements, flow-volume analysis, and body plethsmography; practice in chest radiology, patient assessment, and advanced equipment evaluation..

SOCIOLOGY

100 Introduction to Sociology 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Principles, concepts, and theories of culture, social organization, social roles and stratification, social change, and social planning; the structure, function, pattern, and process of man's social life.

105 Social Problems 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of vital current problems in American society such as alcoholism, crime, divorce, ethnic and minority relations, population, and poverty - their probable causes, tangible effects on the social order, and possible treatment.

130 Marriage and the Family 3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of personal, marital, and familial relationships, designed to help the student understand the meaning and dynamics of interpersonal relationships as they relate to dating, courtship, preparation for marriage and the adjustments of marriage and family living.

141 Minority Relations 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of racial, ethnic, and religious groups in American society, with an emphasis on the problems of acceptance and prejudice in a multi-group society.

SPANISH

130AB Spanish for Public Employees 3 Units
Prerequisite: None. Courses must be taken in sequence.
Lecture: 3 hours per week
Study and practice in spoken Spanish, designed to meet the specific needs of public employees who need a speaking knowledge of Spanish in order to communicate with their Spanish speaking clientele. Recommended for nurses, social workers, policemen, firemen, and other public employees.

101A College Spanish I (Part 1) 2½ Units
UC
Prerequisite: None.
lecture: 2½ hours per week
laboratory: ½ hour per week

Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

101B College Spanish I (Part 2) 2½ Units
UC
Prerequisite: Spanish 101A.
Lecture: 2½ hours per week
Laboratory: ½ hour per Week
Continuation of Spanish 101A.

101 College Spanish I 5 Units
UC
Prerequisite: None.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Comprehension, conversation, reading, and composition, including drill in essential granimar at the elementary level.

102A College Spanish II (Part 1) 2½ Units
UC
Prerequisite: Spanish 101B, or Spanish 101, or one year of high school Spanish.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of Spanish 101.

102B College Spanish II (Part 2) 2½ Units
UC
Prerequisite: Spanish 102A.
Lecture: 2½ hours per week
Laboratory: ½ hour per week
Continuation of Spanish 102A. (Spanish 102A-102B is equivalent to Spanish 102.)

102 College Spanish II 5 Units
UC
Prerequisite: Spanish 101 or Spanish 101A and 1018, or one year of high school Spanish.
Lecture: 5 hours per week
Laboratory: 1 hour per week
Continuation of Spanish 101.

103A College Spanish III (Part 1) 2 Units
UC
Prerequisite: Spanish 102, or Spanish 102A and 1028, or two years of high school Spanish.
Lecture: 2 hours per week
Laboratory: ½ hour per week
Composition and conversation, including a review of grammar, plus extensive and intensive reading of practical as well as literary Spanish.

1038 College Spanish III (Part 2) 2 Units
UC
Prerequisite: Spanish 103A.
Lecture: 2 hours per week
Laboratory: ½ hour per week
Continuation of Spanish 103A. (Spanish 103A-103B is equivalent to Spanish 103.)

103 College Spanish III 4 Units
UC
Prerequisite: Spanish 102, or Spanish 102A and 102B, or two years of high school Spanish.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Composition and conversation, including a review of grammar, plus extensive and intensive reading of practical as well as literary Spanish.

104A College Spanish IV (Part I) 2 Units
Prerequisite: Spanish 103, or Spanish 1038, or three years of high school Spanish.
Lecture: 2 hours per week
Laboratory: ½ hour per week
Continuation of Spanish 103.

104B College Spanish IV (Part II) 2 Units
Prerequisite: Spanish 104A
Lecture: 2 hours per week
Laboratory: ½ hour per week
Continuation of Spanish 104A. (Spanish 104A-104B is equivalent to Spanish 104.)

104 College Spanish IV 4 Units
UC
Prerequisite: Spanish 103 or three years of high school Span ish.
Lecture: 4 hours per week
Laboratory: 1 hour per week
Continuation of Spanish 103.

166 Selected Studies in Spanish 1-3 Units
UC*
Prerequisite: Spanish 102, or Spanish 102A and 102B, or two years of high school Spanish, or equivalent proficiency.
Lecture: 1-3 hours per week
Laboratory: 2 hours per week per unit of independent study.
Special studies in Spanish which allow students to concentrate on increasing their proficiency in the language and/or broadening their knowledge of Spanish civilization and culture, through a combination of independent study and meetings with the instructor.

235 Directed Reading in Spanish 2 Units
UC*
Prerequisite: Spanish 104 or equivalent.
Lecture: 2 hours per week

Independent reading and research under the supervision of the instructor, with conferences and oral and written reports.

236 Directed Reading in Spanish 2 Units
UC*
Prerequisite: Spanish 104 or equivalent.
Lecture: 2 hours per week
Independent reading and research under the supervision of the instructor, with conferences and oral and written reports.

242 Spanish Culture and Civilization 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to the major trends and characteristics of Spanish culture and civilization as reflected through the centuries in literature, art, and history. (Class is conducted in English.)

SPEECH

100 Elements of Public Speaking 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of effective organization and communication of ideas, with training in methods of developing confidence in presenting material before an audience. Practice in speech delivery techniques through giving various types of speeches to small groups and to the class as a whole.

101 Intermediate Public Speaking 3 Units
UC
Prerequisite: Speech 100.
Lecture: 3 hours per week
Practice in various forms of public speaking, with emphasis on audience analysis, and study-analysis of selected famous speeches.

111ABCD Interpersonal Communication 1-3 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: 1-3 hours per week
Examination of the dynamics of the communication process: accurate expression of ideas, self-concept as it relates to communication. the place of self-disclosure in the communication process, the influence of personal perception on communication, listening and feedback, non-verbal communication, interviewing, and assertive speech patterns. Speech activities will emphasize the development of skill in these areas through conversation in pairs and small groups, short talks, listening training, and analysis of recorded speaking exercises.

120 Oral Interpretation I 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Analysis of literature for oral interpretative reading, with practice on the presentation of materials to an audience. Drill on minor voice problems as necessary.

121 Oral Interpretation II 3 Units
UC
Prerequisite: Speech 120.
Lecture: 3 hours per week
History, theory, and practice of the art of oral interpretative reading. Preparation and presentation of four lecture-recital programs.

140 Elements of Group Discussion
Leadership Skills I 3 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week
Training in basic principles and techniques of discussion, including participation in panel discussions, problem-solving committees, and symposiums and skill development in agenda preparation, group leadership, and individual speaking. Emphasis on efficiency of group process and meaningful communication, as they apply to business and community group action, are stressed.

142 Advanced Group Communication 3 Units
UC*
Prerequisite: Speech 140
Lecture: 3 hours per week
Advanced training in basic principles and techniques of discussion. Participation in panel discussions, problem-solving committees, and symposiums; development of skill in agenda preparation, group leadership and individual speaking. Efficient and meaningful communication, as it applies to business and community group action, is stressed.

2461AB Special Studies in Communication 1 Unit

247AB 2 Units

248ABC 3 Units

UC*
Prerequisite or Compisite: Any speech course.
Laboratory: 3 hours per week per unit

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.

SUPERVISION

010 Elements of Supervision 3 Units
Prerequisite: None.
Lecture: 3 hours per week

Introduction to the responsibilities of a supervisor in industry, such as organization, duties and responsibilities, human relations, grievances, training, rating, promotion, quality-quantity control, and management-employee relations.

013 Human Relations 3 Units
Prerequisite: None.
Lecture: 3 hours per week

Practical application of basic psychology in building better employer-employee relationships by studying human relations techniques.

015 Organization and Management 3 Units
Prerequisite: None.
Lecture: 3 hours per week

Examination of the supervisor's role as planner, organizer, director, controller and coordinator; instruction in the basic functions of an organization.

THEATRE ARTS

100 Introduction to Theatre 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Introduction to the fundamental theories of the theatre arts, providing a basic background and helping students develop an appreciation of theatre production, film, and television.

108-109 World Drama 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week

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.

116ABCD Repertory Theatre 3 Units
UC*
Prerequisite: By audition or interview per summer. Offered for outstanding students in performing arts. Courses must be taken in sequence.
Lecture: 5 hours per week
Laboratory: 2 hours per week (8 week course)

Honors 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.

117ABCD Touring Repertory Theatre Workshop 3 Units
Prerequisite: Thart 116. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 6 hours per week (8 week course)

Practice in the concepts and procedures of the professionally produced touring show. Preparation and presentation of productions designed for touring.

120 Acting Fundamentals 3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week

Introduction to the Stanislavski theory of acting, with practical application in solo and ensemble scenes in the major areas of dramatic literature.

130ABCD Jazz Dance I 1-2 Units
231ABCD Jazz Dance II
UC*
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week
Laboratory: 1-2 hours per week

Study of the principles of jazz and theatrical dance techniques, with emphasis on body placement, principles of kinesiology, and motor learning. In Jazz Dance II student choreography and performance are added

140-141-142-143ABCD Theatre Workshop 3 Units
UC*
Prerequisite: None. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 7.5 hours per week (8 week course)
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.

145ABCD Advanced Theatre Workshop 3 Units
UC
Prerequisite: Theatre Arts 143. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 6 hours per week (8 week course)
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.

146ABCD Acting: Advanced Performance Workshops 3 Units
UC*
Prerequisite: Thart 145. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 6 hours per week (8 week course)
Supervised applied theory in acting, singing, and dancing for the stage through projects for public presentation.

150-151-152-153 Summer Theatre Workshop 2-4 Units
UC*
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 8-16 hours per week (8 week course)
Instruction in the areas of stage production, acting, promotion, and publicity. Designed as theatrical experience for high school graduates and college freshmen.

174ABCD Dance Production Workshop 2 Units
Prerequisite: None. Courses must be taken in sequence.
Lecture: 1 hour per week
Laboratory: 2 hours per week
Instruction and practice in the development of dance as an integral part of a theatrical production.

175 Stage Make-up 1 Unit
UC
Prerequisite: None.
Laboratory: 3 hours per week
Introduction to the theories and practice of make-up through changing the appearance of the actor to correspond to an interpretation of the character.

176ABCD Fundamentals of Stagecraft 1-4 Units
UC*
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 2 hours per week per unit
Basic theories and practice of construction, painting, assembly, shifting and lighting of stage scenery and properties.

179ABCD Fundamentals of Stagecraft - Advanced Practicum 2 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 4 hours per week
Continuation of Theatre Arts 176, 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 darkroom procedures, finishing and presentation.

180ABCD Ballet I 1-2 Units
UC*
Prerequisite: None. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laboratory: 1-2 hours per week
Study of the techniques of classical ballet, including basic barre and center work, basic body and arm positions, port de bras, allegro, adaigio, and development of a working knowledge of ballet terminology.

220-221 Advanced Acting 3 Units
UC
Prerequisite: Theatre Arts 121. Courses need not be taken in sequence.
Lecture: 3 hours per week
Theory and practice of characterization in solo and ensemble scenes.

225ABCD Character Analysis 3 Units
Prerequisite: Theatre Arts 140 or equivalent. Courses must be taken in sequence.
Lecture: 3 hours per week
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.

231ABCD Jazz Dance II 1-2 Units
UC
Prerequisite: Theatre 130. Courses must be taken in sequence.
Lecture: ½-1 hour per week and
Laboratory: 1-2 hours per week
Continuation of Theatre Arts 130, with student choreography and performance added.

WORK EXPERIENCE

099 General Work Experience 1-3 Units
Prerequisite: None.
Laboratory: 5-15 hours per week
Supervised general work experience education to assist students in acquiring desirable work habits, career awareness, and job attitudes consonant with contemporary community standards.

Occupational Work Experience
Work experience education credit can be earned through supervised activities in each of the occupational disciplines. (See appropriate program area under entry number 098 for specific information.)

SECTION III
TRANSFER AND ASSOCIATE DEGREE PROGRAMS

The following majors and pre-majors are available at Crafton Hills College. Majors may be used for either a transfer program or an Associate Degree program. The core courses listed under these majors are the ones recommended for transfer. Any other courses in the subject to make a total of eighteen units will meet the requirement of a major for an Associate Degree.

MAJORS

Accounting
Administration of Justice
Anatomy and Physiology
Anthropology
Art
Astronomy
Biological Sciences
Business Administration
Chemistry
Computer and Information Sciences
Economics
Emergency Medical Services
English
Fire Technology

Foreign Language
Geography
Geology
History
Liberal Studies
Marketing
Mathematics
Microbiology
Music
Office Administration (Secretarial)
Philosophy
Physical Education
Physics
Political Science
Psychology
Radiologic Technology
Religious Studies
Respiratory Care
Sociology
Speech
Theatre Arts

Crafton Hills College offers the first two years of course work towards the following areas of specialization:

Pre-Chiropractic
Pre-Dentistry
Pre-Education
Pre-Engineering
Pre-Forestry
Pre-Legal
Pre-Medicine
Pre-Nursing
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Veterinary Medicine

NOTES TO TRANSFER STUDENTS:

1. Consult with your advisor to decide on support courses for your chosen major.
2. Consult the catalog of the college or university to which you intend to transfer to determine whether or not you need to make adjustments in specific course patterns.
3. Pay careful attention to the specific requirements of the different types of four-year institutions, as outlined in Section V of this catalog, to make sure you understand the general education requirements of the institution you want to attend.

NOTES TO ASSOCIATE DEGREE STUDENTS:

1. Consult with your advisor to decide on support courses for your chosen major.
2. Consult the graduation requirements outlined in Section I of this catalog; they must be completed for you to graduate from Crafton Hills College.

ACCOUNTING

Recommended Core Courses for Transfer Students:
Accounting 210, 211, 220, 221
Business Administration 210
Computer and Information Sciences 101
Economics 200, 201
Mathematics 102, 108

Recommended Core Courses for Associate Degree Students:
Accounting 205, 210, 220, 225, 230
Business Administration 053, 100, 105, 210
Computer and Information Sciences 101
Economics 200, 201
Office Administration 100

ADMINISTRATION OF JUSTICE

Recommended Core Courses:
Administration of Justice 101, 102, 103, 104, 105

ANATOMY/PHYSIOLOGY

Recommended Core Courses:
Allied Health 101
Anatomy/Physiology 150, 151
Chemistry 101
Microbiology 150

ANTHROPOLOGY

Recommended Core Courses:
Anthropology 100, 102, 106
Geography 110
Sociology 100

ART

Recommended Core Courses:
Art 100, 102, 120A, 120B, 124A

ASTRONOMY

Recommended Core Courses:
Astronomy 150
Chemistry 150, 151
Mathematics 152, 251, 252, 254
Physics 200, 201

BIOLOGICAL SCIENCES

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 103, 108, 152
Physics 110, 111

BUSINESS ADMINISTRATION

This major includes a variety of concentrations, including Accounting, Business Data Processing, Finance, Insurance and Real Estate, Hotel and Restaurant Management, and Marketing.

Recommended Core Courses:
Accounting 210, 211, 220, 221
Business Administration 210
Computer and Information Sciences 101
Economics 200, 201
Mathematics 102, 108

CHEMISTRY

Recommended Core Courses:
Chemistry 150, 151, 212, 213
Mathematics 152, 251, 252
Physics 200, 201

COMPUTER AND INFORMATION SCIENCES

Recommended Core Courses:
Computer and Information Sciences 101, 102, 104, 106, 110, 202, 203, 230, 240, 250

ECONOMICS

Recommended Core Courses:
Accounting 210, 211, 220, 221
Economics 200, 201
Mathematics 108, 140
Philosophy 103

EMERGENCY MEDICAL SERVICES

Consult your advisor to develop an appropriate course of study.

ENGLISH

Recommended Core Courses:
English 101, 152, 260, 261, 270, 271
Foreign Language*

Varies from college to college; consult appropriate college catalog

FIRE TECHNOLOGY

Consult your advisor to develop an appropriate course of study; majors available in Fire Protection Engineering, Fire Technology, and Wildland Fire Science.

FOREIGN LANGUAGE

Recommended Core Courses:
English 101, 152
Foreign Language 101, 102, 103, 104
Second Foreign Language 101, 102

GEOGRAPHY

Recommended Core Courses:
Geography 102, 110, 114
Geology 100
Oceanography 101
Mathematics 103

GEOLOGY

Recommended Core Courses:
Chemistry 150, 151
Geography 110
Geology 100, 112, 250 or 251
Mathematics 152, 251
Physics 110, 111

HISTORY

Recommended Core Courses:
Geography 110
History 100, 101, 160, 161
Political Science 100

LIBERAL STUDIES

This general education curriculum is suggested for students who have not yet selected a particular major field. This major field is planned to complete general education requirements at many four-year colleges and also fulfills graduation requirements for the Associate Degree. This program is also designed to fulfill requirements for the multiple subjects credential for elementary school teaching.

Recommmended Core Courses:
Communication/Critical Thinking (9 units)
Physical and Life Science/Mathematics (12 units)
Arts/Literature/Philosophy/Foreign Language (12 units)
Social, Political and Economic Institutions (12 units)
Lifelong Understanding and Self-Development (3 units)

MARKETING

Recommended Core Courses for Transfer Students:
Accounting 210, 211, 220, 221
Business Administration 210
Computer and Information Sciences 101
Economics 200, 201
Mathematics 102, 108

Recommended Core Courses for Associate Degree Students:
Accounting 205, 210, 211, 220, 221
Business Administration 053, 100, 210
Computer and Information Sciences 101
Marketing 100, 105, 110
Speech 100, 101

MATHEMATICS

Recommended Core Courses:
Computer and Information Sciences 102, 104
Foreign Language*
Mathematics 152, 251, 252, 254
Physics 200, 201

*Varies from college to college; consult appropriate college catalog.

MICROBIOLOGY

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 152
Microbiology 150
Physics 110, 111

MUSIC

In addition to the courses below, proficiency in piano is essential to enter a four-year program at the junior level. Continuous enrollment in a performance group is recommended. Check the catalog of the school to which you intend to transfer for specific requirements.

Recommended Core Courses:
Music 101-102, 120, 201-202 (recommended for the second year of study), and 135-136 (may be waived in part or whole by examination), and a performance group.

OFFICE ADMINISTRATION

Recommended Core Courses:
Office Administration 100, 101, 102, 110, 120, 121, 122, 144, 145, 146

PHILOSOPHY

Recommended Core Courses:
Philosophy 101, 103, 105
Religious Studies 101

PHYSICAL EDUCATION

Recommended Core Courses:
Anatomy/Physiology 150 and 151
Biology 100
EMS 010
Health Education 102
Physical Education 262
Psychology 100
Sociology 100
Minimum of one activities course per semester.

PHYSICS

Recommended Core Courses:
Chemistry 150, 151
Mathematics 152, 251, 252, 254
Physics 200, 201

POLITICAL SCIENCE

Recommended Core Courses:
Economics 200, 301
History 100, 101
Political Science 100

PRE-CHIROPRACTIC

Recommended Core Courses:
Anatomy/Physiology 150, 151
Biology 130
Chemistry 150, 151, 212, 213
English 101
Physics 110, 111
Psychology 100
Speech 100

PRE-DENTISTRY

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Physics 110, 111

PRE-EDUCATION

This program is designed for those who are interested in teaching in the California public schools. The Teachers Preparation and Licensing Act requires that teachers demonstrate their subject matter competency by either passing an examination or completing their work in a Commission-approved "waiver degree program." Additionally, all credential candidates must pass the California Basic Education Skills Test (CBEST). At present, there are tour basic teaching credentials:

1. Single Subject instruction.
2. Multiple Subject instruction.
3. Specialist and Services Programs.
4. Designated Subjects instruction.

For additional information, students should check with the Counseling Center.

ELEMENTARY

Persons interested in teaching in the elementary schools should pursue the Multiple Subjects credential which authorizes the holder to teach in any self-contained classroom - classrooms in which one teacher is responsible for teaching all subjects commonly taught in the elementary schools.

In addition to the general education and lower division requirements for transfer, the following electives are recommended:
Art 120A, 120B
English 260, 261
Health Education 102
Sociology 141
Mathematics 102
Music 100
Sociology 105

SECONDARY

Persons interested in teaching at the secondary level should pursue the Single Subject credential with a specific major. Additional coursework or examinations are required in order to add subjects to the basic credential.

In addition to the general education and lower division requirements for transfer, the following electives are recommended:
Anthropology 102
Economics 201
Health Education 102
Psychology 112
Sociology 100, 105

PRE-ENGINEERING

Recommended Core Courses:
Chemistry 150, 151
Computer and Information Sciences 102, 104
Economics 201
Mathematics 153, 154, 253, 254
Physics 200, 201

PRE-FORESTRY

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151
Computer and Information Sciences 102
Economics 200, 201
Geology 100
Mathematics 108, 153
Physics 110, 111

PRE-LEGAL

Law schools do not prescribe a definite Pre-Legal curriculum, nor do they require a specific major as a prerequisite to being accepted. However, all law schools prefer applicants with a broad general education background, particularly in the social sciences, and applicants who can speak and write the English language with precision and fluency. In all cases the student is urged to pattern his/her program to meet the requirements of the Law school of his/her choice.

Recommended Core Courses:
Economics 200, 201
English 101, 152
History 100, 101, 160, 161
Philosophy 103
Political Science 100
Psychology 100
Sociology 100
Speech 100, 101

PRE-MEDICINE

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 152
Physics 110, 111

PRE-NURSING

Recommended Core Courses:
Anatomy/Physiology 150, 151
Chemistry 102, 150
Microbiology 150

PRE-OPTOMETRY

Recommended Core Courses:
Anatomy/Physiology 150, 151
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 108, 152, 251
Physics 110, 111

PRE-PHARMACY

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 152, 251
Physics 110, 111

PRE-PHYSICAL THERAPY

Recommended Core Courses:
Anatomy/Physiology 150, 151
Chemistry 101, 102
Microbiology 150
Physics 101

PRE-VETERINARY MEDICINE

Recommended Core Courses:
Biology 130, 131
Chemistry 150, 151, 212, 213
Mathematics 108
Physics 110, 111

PSYCHOLOGY

Recommended Core Courses:
Mathematics 108
Psychology 100, 101, 103, 112
Sociology 100

RADIOLOGIC TECHNOLOGY

Required Core Courses:
Radiology 100, 101, 102, 103, 104, 105, 106, 115A, 107, 108, 109, 110, 111, 112, 113, 114, 1158, 200, 201, 202, 203, 204, 205, 206, 213A, 207, 208, 209, 210, 211, 212, 213B

(Radiologic Technology is a fully accredited, hospital-based program operated cooperatively by Crafton Hills College and the San Bernardino County Medical Center.)

RELIGIOUS STUDIES

Recommended Core Courses:
Foreign Language*
History 135, 160, 161
Philosophy 101, 103
Religious Studies 100, 101

Varies from college to college; consult appropriate college catalog.

RESPIRATORY CARE

Required Core Courses:
Anatomy/Physiology 101 or 150/151
Chemistry 101 or 150/151
Emergency Medical Services 010
English 015 or 101
Humanities - any two 3-unit courses
Mathematics 052 (or a passing score on the Mathematics Proficiency Examination)
Microbiology 102 or 150
Physics 101 or 110/111
Respiratory Care 050, 101, 102, 103, 104, 105, 106, 108, 110, 201, 202, 203, 204, 205, 206, 207, 208, 211, 212, 218
Social Science - any two 3-unit courses

Notes:

1. Program begins summer semester only. Application Deadline: May 1.
2. Students must complete the Respiratory Care Technician Certificate (see Section IV) plus Chemistry 101 and Physics 101 prior to entering the second year.
3. Students must complete the Respiratory Care Associate in Science Degree within a five-year period to receive Department certification.

SOCIOLOGY

Recommended Core Courses:
Anthropology 102
Mathematics 108
Sociology 100, 105, 141

SPEECH

Recommended Core Courses:
English 260, 261, 270, 271
Speech 100, 101, 111A, 111B, 120, 121, 140
Theatre Arts 120

THEATRE ARTS

Recommended Core Courses:
English 260, 275
Speech 120
Theatre Arts 100, 108, 120, 176ABCD, 220

SECTION IV
OCCUPATIONAL CERTIFICATE PROGRAMS

Accounting
*Administration of Justice
Administrative Secretary
Business Management
California Fire Officer Training
Clerk-Typist
Computer & Information Science
Emergency Medical Technician I
Emergency Medical Technician II
Emergency Medical Technician - Paramedic
Fire Academy
Fire Technology
Legal Secretary
Marketing Management
Medical Records Coding Specialist
Medical Secretary
Mobile Intensive Care Nurse
Radiologic Technology
Respiratory Care Technician
Secretary
Supervision
Wildland Fire Science
Word/Information Processing

*Offered under a conjoint arrangement with San Bernardino Valley College

Certificates are closely tied to the work-a-day world. A certificate in a particular field - for example, Medical Secretary - is an important credential for securing a job or a promotion. It tells an employer that you have been trained and have mastered competencies in a specific area.

In this section, you will find the precise course requirements for each certificate. Certain basic English, mathematics, and reading skills are related to success in both the training and practice of an occupation. Check with your advisor for individual guidance.

Should your career plans change, courses taken to earn a certificate may also be applied to an associate degree. For more information, read Section III (Transfer and Associate Degree Programs) or contact a counselor.

CREDIT FOR OTHER TRAINING

If you have had appropriate non-college experience, such as military courses or apprenticeship training, you may request that the training be evaluated for credit toward a certificate. However, before you apply for evaluation, you must have successfully completed twelve units at Crafton Hills College.

OBTAINING A CERTIFICATE

During the latter half of the semester in which you plan to complete the last course toward a certificate, you should apply for that certificate. Pick up an application form in the Office of Admissions and Records.

ACCOUNTING CERTIFICATE

Certificate requirements include a minimum of five core courses listed below. No more than one course from each group can count toward the five core courses.

Business Core Course Requirements

1. Accounting 210-211 or Bookkeeping 205
2. Marketing 100 - Marketing Principles
3. Business Administration 100 - Introduction to Business
4. Economics 200 or 201
5. Business Administration 210 - Business Law
6. Business Administration 053 - Business Math or Mathematics 108 - Statistics
7. Office Administration 100 - Typewriting
8. One Computer Language
9. Computer and Information Sciences 101

Plus the Following Specialty Courses

		Units
Acct 210	Principles of Accounting	3
Acct 211	Principles of Accounting Laboratory	1
Acct 220	Principles of Accounting	3
Acct 221	Principles of Accounting Laboratory	1

Acct 235	Intermediate Accounting	3
Acct 22b or	Cost Accounting	(4)
Acct 230	State and Federal Income Tax Accounting	(4)
	TOTAL	15

ADMINISTRATION OF JUSTICE CERTIFICATE

Courses in Administration of Justice are currently offered at Crafton Hills College. However, the certificate is issued only through San Bernardino Valley College.

		Units
OA 050	Office Experience	3-9
OA 101	Intermediate Typewriting (Proficiency Level: 60 words a minute)	3
OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications: Displaywrite 3	1
OA 111	Intermediate Word/Inforniation Processing Concepts	3
OA 072	Word Processing Applications: Wordperfect	1
OA 120	Elementary Gregg Shorthand	6
OA 121	Intermediate Gregg Shorthand	6
OA 122	Advanced Dictation and Transcription (Proficiency Level: 100 WPM for 3 minutes)	6
OA 130	Records Management	3
OA 140	General Office Procedures	6
OA 144	Business English	3
OA 145	Business Communications	3
OA 146	Human Relations in the Office Environment	3
Acct 205	Bookkeeping	3
Busad 053	Applied Business Mathematics	3
Busad 230	Microcomputer Applications	3
	TOTAL	59-65

BUSINESS MANAGEMENT CERTIFICATE

Certificate requirements include a minimum of five core courses listed below. No more than one course from each group can count toward the five core courses.

Business Core Course Requirements

1. Accounting 210/211 or Accounting 205

2. Marketing 100
   Business Administration 100
4. Business Administration 210
5. Business Administration 053 or Math 108
6. Computer and Information Sciences 101
7. One Computer Language
8, Office Administration 100
   Economics 200 or 201

Plus the Following Specialty Courses

		Units
Busad 200	Business Management	3
Busad 105	Small Business Management	3
Busad 135	Women in Management	(3)
or		
Busad 210	Business Law	(3)
C&IS 101	Survey of Data Processing	3
Acct 220	Principles of Accounting	3
Acct 221	Principles of Accounting Lab	1
	TOTAL	16

CALIFORNIA FIRE OFFICER CERTIFICATE

The courses listed below are required for officer certification by the California Fire Service Training and Education System. All eight (8) courses must be completed.

		Units
Firet 080	Fire Instructor 1-A	2-3
Firet 081	Fire. Instructor 1-B	2-3
Firet 082	Fire Prevention 1-A	2-3
Firet 083	Fire Prevention 1-B	2-3
Firet 084	Fire Management I	2-3
Firet 085	Fire Command 1-A	2-3
Firet 086	Fire Command 1-B	2-3
Firet 087	Fire Investigation I	2-3
	TOTAL	16-24

CLERK-TYPIST CERTIFICATE

		Units
OA 050	Office Experience	3-9
OA 100	Beginning Typewriting	3
OA 101	Intermediate Typewriting	3
OA 102	Advanced Typewriting	3

OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications	1
OA 071	Advanced Word Processing Applications	½
OA 130	Records Management	3
OA 140	General Office Procedures	6
OA 146	Human Relations in the Office Environment	3
Busad 053	Applied Business Math	3

TOTAL 31½-37½

COMPUTER & INFORMATION SCIENCE CERTIFICATE

		Units
C&IS 101	Survey of Data Processing or Pass C&IS Placement Examination	(3)
Busad 100	Introduction to Business	3
C&IS 102	BASIC Language Programming	3
C&IS 104	FORTRAN Language Programming	3
C&IS 106	Microcomputers	3
C&IS 110	PASCAL Language Programming	3
C&IS 200	COBOL I (Introduction to COBOL Programming)	3
C&IS 201	COBOL II (Advanced COBOL Programming)	3
C&IS 230	Assembly Language Programming	3
C&IS 240	Advanced Programming Techniques	3
C&IS 250	Numerical Computing	3

TOTAL 30-33

EMERGENCY MEDICAL TECHNICIAN-I CERTIFICATE

Required Course		
EMS 020	Emergency Medical Technician-I-A	4½
or		
EMS 022	Emergency Medical Technician-I-NA	5

TOTAL 4½-5

EMERGENCY MEDICAL TECHNICIAN-II CERTIFICATE

Prerequisite	
EMS 050	Integrated Science and Basic Medical Language for Paramedics
EMS 020	Emergency Medical Technician-I-A

Required Courses		Units
EMS 030	Introduction to Emergency Medical Care-II	½
EMS 031	Cardiology for the Emergency Medical Technician-II	3
EMS 032	Pharmacology for the Emergency Medical Technician-II	2
EMS 033	EMS Theory for the EMT-II	3
EMS 034	Skills Development for the Emergency Medical Technician-II	1
EMS 035	Clinical Externship for the Emergency Medical Technician-II	½
EMS 036	Field Externship for the Emergency Medical Technician-11	3
EMS 037	Preceptorship for the Emergency Medical Technician-II	¼
	TOTAL	14¼

ARTICULATION FROM EMT-II TO PARAMEDIC

If you are currently an EMT-II and wish to become a paramedic, consult the Program Director of Emergency Medical Services to develop an appropriate course of study from EMT-II to paramedic.

EMERGENCY MEDICAL TECHNICIAN - PARAMEDIC

Prerequisites
Currently Certified EMT-I
Six months full-time documented field experience (paid or volunteer)

Required Courses Work		
ANAT 101	General Anatomy and Physiology and	
AH 101	Medical Terminology	
	OR	
EMS 050	Integrated Science and Basic Medical Language for Paramedics	

Required Courses		Units
EMS 151	Introduction to Emergency Medical Care	2
EMS 152	Cardiology for Paramedics	4
EMS 153	Pharmacology for Paramedics	3
EMS 154	EMS Theory	8
EMS 155	Skills Development for the Paramedic	2
EMS 156	Clinical Externship for the Paramedic	3
EMS 157	Field Externship for the Paramedic	6
	TOTAL	28

FIRE ACADEMY CERTIFICATE

Leads to entry-level employment as a fire fighter.

EMS 020	Emergency Medical Technician 1A	
Firet 100	Introduction to Fire Technology	
Firet 101	Fundamentals of Fire Prevention or Equivalent	
Required Course		Units
Firet 075	Fire Technology Basic Training Academy	9

FIRE TECHNOLOGY CERTIFICATE

Studies in the theory and practice of fire management in urban and suburban settings

		Units
EMS 020	Emergency Medical Technician 1A	4½
Firet 100	Introduction to Fire Technology	3
Firet 101	Fundamentals of Fire Prevention	3
Firet 103	Fundamentals of Personal Fire Safety and Emergency Care	3
Firet 108	Fundamentals of Fire Behavior and Control	3
Firet 201	Fire Protection and Equipment Systems	3
Electives		6
	TOTAL	25½

The electives will be used to provide the student a start toward building a broad base of liberal studies. Students are encouraged to consult with their faculty advisor in the selection of electives.

LEGAL SECRETARY CERTIFICATE

		Units
OA 101	Intermediate Typewriting	3
OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications: Displaywrite 3	1
OA 071	Advanced Word Processing Applications: Displaywrite 3	½
OA 120	Elementary Gregg Shorthand	6
OA 121	Intermediate Gregg Shorthand	6
OA 130	Records Management	3
OA 146	Human Relations in the Office Environment	3
OA 150	Legal Office Procedures	3
OA 151	Legal Terminology and Transcription	3
Acct 205	Bookkeeping	3
	TOTAL	34½

MARKETING MANAGEMENT CERTIFICATE

Certificate requirements include a minimum of five core courses listed below. No more than one course from each group can count toward the five core courses

Business Core Course Requirements

1. Accounting 210-211 or Bookkeeping 205
2. Marketing 100 - Marketing Principles
3. Business Administration 100 - Introduction to Business
4. Economics 200 or 201
5. Business Administration 210 - Business Law
6. Business Administration 053 - Business Math or Mathematics 108 - Statistics
7. Office Administration 100 - Typewriting
8. Computer and Information Sciences 101
9. One Computer Language

Plus the Following Specialty Courses:

		Units
Busad 200	Business Management	3
Market 105	Principles of Salesmanship	3
Market 110	Advertising	3
Busad 105	Small Business Management	3
C&IS 101	Survey of Data Processing	(3)
or		
Business Elective	(Student's Choice)	(3)
	TOTAL	15

MEDICAL RECORDS CODING SPECIALIST CERTIFICATE

Prerequisites		Units
AH 101	Medical Terminology	3
A&P 101	Anatomy & Physiology	4
Corequisite		
AH 210	Pathophysiology	3
Required Courses		
AH 103	Medical Records Coding I	3
AH 104	Medical Records Coding II	3
AH 105	Medical Records Coding III	3
	TOTAL	19

MEDICAL SECRETARY CERTIFICATE

		Units
OA 101	Intermediate Typewriting	3
OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications: Displaywrite 3	1
OA 071	Advanced Word Processing Applications: Displaywrite 3	½
OA 120	Elementary Gregg Shorthand	6
OA 121	Intermediate Gregg Shorthand	6
OA 130	Records Management	3
OA 146	Human Relations in the Office Environment	3
OA 160	Medical Office Procedures	3
OA 161	Medical Shorthand	3
OA 162	Medical Terminology and Transcription I	6
OA 163	Medical Terminology and Transcription II	6
Acct 205	Bookkeeping	3
	TOTAL	46½

MOBILE INTENSIVE CARE NURSE CERTIFICATE

Prerequisites (or Corequisites as appropriate)
Registered Nurse

EMS 101	Cardiology for the Health Professional
EMS 110	Advanced Cardiac Life Support - Provider
EMS 102	Emergency Department Nurse OR One year current experience in Emergency Nursing

RequiredCourse		Units
EMS 103	Mobile Intensive Care Nurse	2½

RADIOLOGIC TECHNOLOGY CERTIFICATE

	1st Semester	Units
RAD 100	Introduction to Radiologic Technology	¾
RAD 101	Medical Ethics for the Radiologist	½
RAD 102	Radiographic Medical Technology	½
RAD 103	Radiographic Positioning I	1½
RAD 104	Radiologic Physics I	1½
RAD 105	Radiographic Anatomy/Physiology I	1½
RAD 106	Radiographic Positioning Lab I	½
RAD 115A	Radiographic Clinic	11¼
	2nd Semester	
RAD 107	Basic Radiologic Medical Techniques	1¼
RAD 108	Radiation Protection I	1¼
RAD 109	Radiologic Physics II	1¼
RAD 110	Radiographic Exposure I	1¼
RAD 111	Radiographic Film Critique I	1¼
RAD 112	Radiographic Positioning II	1¼
RAD 113	Radiographic Anatomy/Physiology II	1¼
RAD 114	Radiographic Positioning Lab II	½
RAD 115B	Radiographic Clinic II	10½

	3rd Semester	
RAD 200	Radiation Protection II	1½
RAD 201	Radiographic Exposure II	1½
RAD 202	Radiographic Film Critique II	1½
RAD 203	Radiographic Positioning III	1½
RAD 204	Radiographic Anatomy/Physiology III	1½
RAD 205	Radiographic Exposure Lab	½
RAD 206	Radiographic Physics II Lab	½
RAD 213A	Radiographic Clinic III	10¾
	4th Semester	
RAD 207	Radiographic Imaging	1¼
RAD 208	Registry Review Test in Radiology	2¾
RAD 209	Radiographic Film Critique III - Pathology	1¼
RAD 210	Radiologic Positioning IV	1¼
RAD 211	Radiographic Anatomy/Physiology IV	1¼
RAD 212	Special Procedures in Radiology	1¼
RAD 213B	Radiographic Clinic IV	11
	TOTAL	78

Notes:

1. Radiologic Technology is a fully accredited, hospital based program operated cooperatively by Crafton Hills College and the San Bernardino County Medical Center.
2. Program applications, entrance examination results, and all transcripts must be filed by February 1. Classes begin the first week of July each year. (Application packets are available from October through January of each year.)

RESPIRATORY CARE TECHNICIAN CERTIFICATE

		Units
*Anat 101	General Anatomy and Physiology	4
EMS 010	General Cardiac Life Support - Provider	¼
*Engl 015	Basic Writing	3
Intdis 130	Ethical Issues in Modern Medicine	3
**Math 052	Review Arithmetic and Introduction to Algebra	3
*Micro 102	Introductory Microbiology	4
Resp 050	Introduction to Respiratory Care	2
Resp 101	Fundamentals of Respiratory Care I	4
Resp 102	Fundamentals of Respiratory Care Skills I	11
Resp 103	Pulmonary Medical Terminology	3
Resp 105	Fundamentals of Respiratory Care II	4
Resp 106	Fundamentals of Respiratory Care Skills II	5
Resp 108	Respiratory Care Clinical Application II	5½
Resp 110	Clinical Medicine I	2
	TOTAL	53¾

Notes:

1. Program begins summer semester only. Application deadline: May 1
2. Anatomy and Physiology 101 and Respiratory Care 050 must be completed prior to the fall semester of the first year of study.
3. Students must complete the course work for the Respiratory Care Technician Certificate within a three-year period to receive Department certification.

*Students are encouraged to substitute equivalent advanced-level courses.
**Students may substitute a passing score on the Mathematics Proficiency Examination.

SECRETARIAL CERTIFICATE

		Units
OA 050	Office Experience	3-9
OA 101	Intermediate Typewriting	3
OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications: Displaywrite 3	1
OA 071	Advanced Word Processing Applications: Displaywrite 3	½
OA 120	Elementary Gregg Shorthand	6
OA 121	Intermediate Gregg Shorthand	6
OA 122	Advanced Dictation and Transcription	6
OA 130	Records Management	3
OA 140	General Office Procedures	6
OA 146	Human Relations in the Office Environment	3
Busad 053	Applied Business Mathematics	3
Acct 205	Bookkeeping	3
	TOTAL	46½-52½

SUPERVISION CERTIFICATE

Certificate requirements include a minimum of five core courses listed below. No more than one course from each group can count toward the five core courses.

Business Core Course Requirements:

1. Accounting 205 or Accounting 210-211
2. Marketing 100 - Marketing Principles
3. Business Administration 100 - Introduction to Business
4. Economics 200 or 201
5. Business Administration 210 - Business Law
6. Business Administration 053 - Business Math or Mathematics 108 - Statistics

7. Office Administration 100 - Typewriting
8. One Computer Language
9. Computer and Information Sciences 101

Plus the Following Specialty Courses:

		Units
sup 010	Elements of Supervision	3
Sup 013	Human Relations	3
Sup 015	Organization and Management	3
	TOTAL	9

WILDLAND FIRE SCIENCE CERTIFICATE

Students seeking a certificate in Wildland Fire Science must coordinate their program of studies with a faculty advisor from the Crafton Hills College Regional Emergency Training and Research Institute.

		Units
Firet 170	Basic Wildland Fire Fighting	3
Firet 171	Basic Engine Laboratory	2
Firet 172	Fire Operations Supervision	4
Firet 173	Crew Leadership Operation	4
Firet 174	Wildland Fire Prevention	3
Firet 175	Wildland Fire Investigation	3
Firet 176	Wildland Fire Behavior	4
Firet 177	Tactics & Strategy of Wildland Fire Control	4
Firet 178	Map Interpretation	2
Firet 179	Weather & Fire Behavior	3
Wildland Fire Science Electives		8-12
	TOTAL	40-44

WORD/INFORMATION PROCESSING CERTIFICATE

		Units
OA 050	Office Experience	3-9
OA 101	Intermediate Typewriting	3
OA 110	Beginning Word/Information Processing Concepts	3
OA 070	Word Processing Applications: Displaywrite 3	1
OA 071	Advanced Word Processing Applications: Displaywrite 3	½
OA 111	Intermediate Word/Information Processing Concepts	3

OA 072	Word Processing Applications: Word perfect	1
OA 073	Advanced Word Processing Applications: Word perfect	½
OA 130	Records Management	3
OA 140	General Office Procedures	6
OA 144	Business English	3
OA 146	Human Relations in the Office Environment	3
C&IS 100	Computer Literacy	1½
	TOTAL	31½-37½

SECTION V
TRANSFER INSTITUTIONS - GENERAL REQUIREMENTS

Each four-year institution has its own admissions standards. In addition, each determines which courses it will accept to satisfy either specific or elective requirements. Further, these standards and requirements are subject to periodic change. So, if you plan to transfer to a four-year institution, you should - as soon as possible - get hold of the current catalog of that institution. Then, study carefully the admissions requirements and conditions of transfer. If you have trouble understanding the catalog, get help from a counselor.

Fortunately, the similarities among tour-year institutions are greater than the differences. Listed below are the general admissions requirements and conditions of transfer for the California State University (CSU) system, the University of California (UC), and an example of an independent university.

A word of caution! Some students enroll at community colleges to remove deficiencies in their high-school programs so that they can gain admission to a four-year institution. If this is your reason for attending Crafton, be certain that the courses you select are the right ones. Again, the best sources of information are the appropriate catalogs and the college counselors.

THE CALIFORNIA STATE UNIVERSITY

The State University system is one of the three branches of public higher education in California. There are nineteen campuses in the system:

California State College, Bakersfield
California Polytechnic State University, San Luis Obispo

California State Polytechnic University, Pomona
California State University, Chico
California State University, Dominguez Hills
California State University, Fresno
California State University, Fullerton
California State University, Hayward
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
California State University, San Bernardino
California State University, Stanislaus
Humboldt State University
San Diego State University
San Francisco State University
San Jose State University
Sononia State University

ADMISSIONS

Crafton Hills College students who plan to transfer to one of the CSU campuses must complete a minimum of fifty-six transferable semester units with a grade point average of 2.0 or better before they are eligible to transfer. (Exception: If you were eligible for admission to a CSU campus as a freshman, you can usually transfer to any CSU campus with less than fifty-six semester units.) All high school subject deficiencies in English and mathematics must be satisfied prior to transfer. Currently, and in addition to other academic requirements, four years of college preparatory high school English and two years of mathematics (three years in 1988) are required.

Required and to be included in the fifty-six transferable units is a minimum of thirty semester units of the CSU General Education requirements, including communication in the English language (Category A) and mathematical concepts (Category B). Furthermore, Intermediate Algebra (Math 102) completed during the Fall term 1988 and thereafter, WILL NOT satisfy CSU General Education requirements nor provide exemption from the CSU Entry Level Mathematics (ELM) examination.

REGULATIONS AND GENERAL EDUCATION

Each campus requires a minimum of forty-eight (48) units of general education, of which nine (9) units MUST be earned in the upper division at the campus granting the baccalaureate degree. Crafton Hills College may certify that a student has satisfied thirty-nine (39) units of general education which should be and normally are completed in the lower division. Not more than thirty (30) units may be applied for areas B through D, and a course may fulfill only one requirement.

Listed below are the courses and patterns that will satisfy the lower division general education requirements at any of the California State Universities and Colleges:

A. COMMUNICATION/CRITICAL THINKING

7-9 units required. All students must complete English 101 and 3-6 additional units from the following:

English 152

Philosophy 103

Speech 100, 101, 111

B. PHYSICAL AND LIFE SCIENCE/MATHEMATICS

9-12 units required. Must include at least one course in biological science and one course in physical science, and one of the courses must include a laboratory.

Biological Science	Physical Science	Mathematics
Anatomy/Physiology 101, 150, 151	Astronomy 150+, 160	Mathematics 102, 103, 108
	Chemistry 101, 102, 150, 151	140, 151, 152, 251, 252, 254
Biology 100, 122, 123* 130, 131		
Microbiology 102, 150	Geography 110+ 111, 114*, 126*	
Oceanography 101,	Geology 100, 101*, 112, 150*, 160, 250*, 252*	
	Oceanography 101*	
	Physics 100, 110, 111, 200, 201	

*Non-Iab course
+May be taken with or without a lab

C. ARTS/LITERATURE/PHILOSOPHY /FOREIGN LANGUAGE

9-12 units required. Not more than six (6) units in any one discipline may be applied.

Art 100, 102, 105
Foreign Language 101A, 101B, 101, 102A, 102B, 102, 103A. 103B, 103, 104A, 104B, 104, 242
History 160, 161
Interdisciplinary Studies 140
Literature/English 152, 160, 170, 175, 232, 233, 250, 251, 260, 261, 270, 271, 275
Music 100, 120, 121
Philosophy 101, 105
Religious Studies 100, 101, 135
Speech 120, 121
Theatre Arts 100, 108, 109

D. SOCIAL, POLITICAL AND ECONOMIC INSTITUTIONS

9-12 units required. Not more than six (6) units in any one discipline may be applied.

NOTE: Political Science 100 PLUS either History 100 or 101 fulfills the U.S. History, Constitution, and American Ideals requirement. (Title V, CAC, Section 40404)

Anthropology 100, 102, 106
Economics 100, 200, 201
Geography 102
History 100, 101, 135, 160, 161, 164, 165
Political Science 100, 101
Psychology 100, 101, 110, 112, 116, 133
Sociology 100, 105, 130, 141

E. LIFELONG UNDERSTANDING AND SELF DEVELOPMENT

3 units required.

Health Education 102
Philosophy 105
Physical Education 262, 263
Physical Education Activities, 1 unit maximum
Psychology 103, 116, 118, 133, 156
Sociology 130
and Speech 111, 140

THE UNIVERSITY OF CALIFORNIA

The University of California has nine major campuses - Berkeley, Davis, Irvine, Los Angeles, 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 or 105 quarter units of transfer work, there are some subject differences among them. Students who want to transfer to the University should make certain they are meeting the lower division requirements of the specific branch of the University to which they are transferring.

ADMISSION TO ADVANCED STANDING

Prospective students may apply for admission to any of the campuses of the University of California. The admission cycle for the fall quarter of each year begins on November 1. Each campus will accept for consideration all applications filed during the month of November. Enrollment ceilings have been established at each campus.

The University defines an "advanced standing applicant" as a high school graduate who has been a registered student in another college or university or college-level extension classes, other than a summer session immediately following high school graduation. An advanced standing applicant may not disregard his college record and apply for admission as a freshman.

The requirements for admission to advanced standing vary according to your high school record. If you have completed fewer than twelve quarter or semester units of transferable college credit since high school graduation, you must also satisfy the examination requirement for freshman applicants.

The transcript you submit from the last college you attended must show that you were in good standing and that you had earned a grade point average of 2.0 or better. If your grade point average fell below 2.0 at any one college you attended, you may have to meet additional requirements in order to qualify for admission.

As an advanced standing applicant you must also meet one of the following conditions:

1. If you were eligible for admission to the University as a freshman, you may be admitted in advanced standing any time after you have established an overall grade point average of 2.0 or better in another college or university.
2. If you achieved the required score on the Eligibility Index but did not complete all the required subjects in high school, you may be admitted to the University after you have:
   a. Established a college grade-point average of 2.0 or better; and
   b. Completed, with grades of "C" or better, appropriate college courses in the required subjects you lacked; *and*
   c. Completed 16 or more quarter or 12 semester units of transferable college credit, or have met the Examination Requirement for freshman applicants.

3. If you did not achieve the required score on the Eligibility Index, or did not achieve the required score and lacked required subjects, you may be admitted to the University after you have:
   a. Established a college grade-point average of 2.4 or better; and
   b. Completed 84 quarter or 56 semester units of transferable college credit; and
   c. Completed one of the following options:

   Option 1: One college course in mathematics, one in English, and one selected from U.S. history, a laboratory science, or a foreign language, all with grades of "C" or higher.

   The course in mathematics must have Algebra I as a prerequisite. The course may be geometry, Algebra II, or a more advanced course.

   Please note that these mathematics courses may not be transferable. However, all of the other courses discussed above must be transferable to the University.

   or

   Option 2: Appropriate college courses, with grades of "C" or higher, in the subjects you lacked.

   Up to 2 units of high school work in subjects will be waived, but transfer applicants must have satisfied the freshman admission requirements in English and Mathematics. A unit is equivalent to a one-year course.

BREADTH REQUIREMENTS - General Education

I. *English Composition:* A one-year sequence of college-level instruction in English Composition with an average grade of C or better. Students may be excused from taking the first semester of English Composition if they have achieved a score of4 or 5 in English Composition on the high school Advanced Placement Test, or a passing score on both parts of the California State University English Equivalency Examination.

II. *Humanities*

B.A. - 15 semester units, including one course in World History, and one course each in two of the following: Fine Arts, Literature, Philosophy.

B.S. - 9 semester units, including one course in World History and one in either Fine Arts, Literature or Philosophy.

III. *Social Sciences:*

B.A. - 12 semester units, including one course in Economics or Political Science and one course in either Anthropology, Psychology or Sociology.

B.S. - 9 semester units, including one course in Economics or Political Science and one course in either Anthropology, Psychology or Sociology.

IV. *Natural Sciences and Mathematics:* 15 semester units, including one course in mathematics, statistics or computer science; one course in the biological sciences; one course in the physical sciences.

In addition to the above breadth requirements common to both UCR colleges, the College of Natural and Agricultural Sciences has retained a *foreign language requirement for the Bachelor of Arts degree.* This requirement niay be satisfied by a transferable course in a foreign language at the third semester level or equivalent proficiency, or by proficiency in each of two foreign languages at the second semester level.

IMPORTANT NOTE: No course from a student's major discipline may be used in satisfaction of the breadth requirements. Also, the same course may not be used to meet two breadth requirements.

UNIVERSITY OF CALIFORNIA, RIVERSIDE

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

I. *English Composition:* A one-year sequence of college-level instruction in English Composition with an average grade of C or better. Students may be excused from taking the first semester of English Composition if they have achieved a score of 4 or 5 in English Composition on the high school Advanced Placement Test, or a passing score on both parts of the California State University English Equivalency Examination.

II. *Humanities:*

Fifteen semester units, including one course in World History and 3 units from an ethnic or foreign area.

B.A. - To include one course each in two of the following: Fine Arts, Literature, Philosophy, World History.

B.S. - To include one course in either Fine Arts, Literature, Philosophy, World History.

III. *Social Sciences:*

Twelve semester units, including 3 units from an ethnic or foreign area and at least one course in economics or political science and one course in Anthropology, Psychology or Sociology.

IV. *Natural Sciences and Mathematics:* 15 semester units, including one course in mathematics, statistics or computer science; one course in the biological sciences; one course in the physical sciences.

V. *Foreign Language* (Effective fall, 1989)

B.A. - Completion of one foreign language at the third semester level with a minimum grade of C

B.S. - Completion of one foreign language at the second semester level with a minimum grade of C.

IMPORTANT NOTE: No course from a student's major discipline may be used in satisfaction of the breadth requirements. Also, the same course may not be used to meet two breadth requirements.

COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES

Students planning to transfer into one of the majors in the College of Natural and Agricultural Sciences should complete the following general education and core courses for the major before transferring.

I. General Requirements
English 101, 152
Chemistry 150, 151
Mathematics 151, 152

II. Core Requirements
Core Biology 130, 131
Chemistry 214, 215
Physics 200, 201 or 110, 111

III. Additional elective General Education Requirements

Humanities: A course in World History.

Social Sciences: A course in Economics or Political Science and one course in Anthropology, Psychology or Sociology.

Foreign Language: For the B. A. degree, 3 semesters of a modern foreign language is required. There is no language requirement for the B.S. degree.

UNIVERSITY OF CALIFORNIA, LOS ANGELES

For specific course requirements for the various majors, see the UCLA catalog and consult your counselor or advisor.

General University Requirements:

1. Subject A: English 101 with a grade of "C" or better.
2. American History and Institutions (See UCLA catalog): Either Political Science 100 or History 100 or 101.
3. Foreign Language: At present, the College of Letters and Science does not have a collegewide foreign language requirement; however, effective Fall Quarter 1988, Foreign Language 101 and 102 will be required. Students should consult the UCLA catalog concerning language requirements for specific majors.

COLLEGE OF FINE ARTS

Majors offered include Art, Art History, Dance, Design, Motion Picture/Television, Music, Theater, and World Arts and Cultures. The College now admits new students in the fall term only, except in Art History and World Arts and Cultures. For all majors, preference will be given to those who have earned a 3.0 overall grade point average and have completed all the general College requirements:

1. General University Requirements
2. English 152
3. Foreign Language: A minimum of eight semester units in a language (155 & 165) other than the language taken in high school, or course 175 of the same language taken in high school with the remaining units to be taken from courses listed in the other general education categories.

4. One course in biological or physical sciences and one additional course in science or mathematics. No laboratory is required.
5. *Social Science:* Three courses required to include History 100 and 101 and one social science elective.
6. *Humanities:* Three courses required, including one course each in the Arts, Literature, and Philosophy/Religion. Courses in the major department may not apply toward this requirement. Performance, studio, or film/ television courses do not meet this requirement,

COLLEGE OF LETTERS AND SCIENCE

The general education requirements consist of two parts. Students must (1) demonstrate basic proficiency in Quantitative Reasoning, Foreign Language, and English Composition; and (2) complete course requirements in each of the following four divisions of the College: Humanities, Physical Sciences, Social Sciences, and Life Sciences.

Basic Proficiencies:

1. Quantitative Reasoning may be satisfied by any one of the following:
   a. SAT mathematics score of 600.
   b. CEEB mathematics score of 550.
   c. A minimum of one course from CIS 104, 110; mathematics 108, 140, 151, 152, or Philosophy 103.
2. Foreign Language may be satisfied by completing Foreign Language 101 and 102.
3. English Composition may be satisfied by completing English 101 and 152.

Course Requirements:

Students are required to pass three courses from the Humanities (literature, philosophy, language and linguistics, culture and civilization, the arts); two courses in the Physical Sciences; four courses in the Social Sciences (two from historical analysis and two from social analysis); and two courses in the Life Sciences. In the Humanities, at least one course must be from any single subgroup.

NOTE: Specific course disciplines lor each category are outlined in the current UCLA catalog as "Courses To Fulfill GE Requirements."

Students majoring in the Humanities are exempted from two courses, one of which is in their major subgroup. Students majoring in the Physical Sciences are exempted from one course in their major subgroup. Students in the Social Sciences are exempted from two courses in the subgroup of their major, and students in the Life Sciences are exempted from one course in their major subgroup. At least ten courses (eight with exemptions) must be completed.

UNIVERSITY OF CALIFORNIA, IRVINE

For specific course requirements for the various majors, see the UCI catalog and consult your counselor or advisor.

General University Requirements for the Baccalaureate Degree:

1. *Subject A:* English 101 with a grade of "C" or better at Crafton Hills College.

2. *American History and Instiutions:* This requirement will have been met most frequently by completing in high school one semester each of American History and U.S. Government with a grade of "C" or better. Political Science 100 and either History 100 or 101 at Crafton Hills College will satisfy this requirement. These courses are also applicable toward the breadth requirements.
3. A community college transfer student who has met the general breadth requirements of any UC campus prior to transfer, will be regarded as having met the UCI breadth requirements, except for the upper division writing requirement.
4. Students transferring from Crafton Hills College may satisfy the UCI breadth requirement by completing a year sequence consisting of two semesters' work with a minimum of six semester units in each of the following areas:

I. *Writing*

English 101 and 152

II. *Natural Sciences*

Two courses from one area:

1) Astronomy 150 and Oceanography 101
2) Biology 100, 122, 123, 130, 131; Microbiology 102, 150
3) Chemistry 150, 151
4) Geology 100, 101, 112
5) Physics 110, 111, 200, 201

III. *SocialandBehavioralSciences*

To fulfill this requirement students may take an introductory course in each of two disciplines, or an introductory course followed by a second course in that discipline. Introductory courses are marked by".

Anthropology 100, 102*, 106*
Economics 100, 200, 201
Geography 102*, 110*
Political Science 100
Psychology 100*, 101, 112
Sociology 100*, 105, 141

IV. *Humanistic Inquiry*

Any two (2) courses in the same subject area from:
Art 100, 102, 105, 117, 118
English 250, 251, 260, 261, 270, 271, 275
History 100, 101, 153, 160, 161, 164, 165
Music 120, 121
Theatre Arts 108, 109

V. *Foreign Language, Linguistics, Logic*, Mathematics, Computer Science*

Two courses in the same subject area from:

French 103 and 104
German 103 and 104
Spanish 103 and 104
Mathematics 108, 151, 152
Computer and Information Science 102 or 104 (The remainder of this requirement must be fulfilled at UC Irvine)

°can only belfilled at UCI

PRIVATE COLLEGES AND UNIVERSITIES

There are many independent four-year colleges and universities throughout the country. Customarily, they accept all general education courses designated for transfer by community colleges. Other transfer-level courses are evaluated on the basis of the program of studies being pursued.

Some four-year institutions specify a minimum number of units that a student must take before transfer. Others will accept students at any time.

If you plan to transfer to an independent four-year college or university, secure a copy of the catalog of the school you want to attend and study it carefully. The catalog may be available in the College Library or the Counseling Office. If not, contact the Office of Admissions of the institution you hope to attend. Catalogs are usually sent upon request.

Most Crafton students who transfer to an independent four-year institution choose the University of Redlands. Therefore, it has been selected as an example both as a convenience for those students and to illustrate for others the somewhat different core requirements encountered at independent institutions.

THE UNIVERSITY OF REDLANDS

Students working toward a Bachelor of Arts or Bachelor of Science degree from the University of Redlands are required to complete one approved course of at least three semester units from each of eight categories of a core curriculum. The categories are

1. Written Communication
2. Mathematics or Foreign Language
3. Natural Science
4. Creativity in the Arts
5. Personal Commitment and Ethics
6. Social Priorities
7. American Institutions
8. Cultural and Historical Perspectives

A key word is "approved." If you are planning to transfer to Redlands, make sure that the courses you take at Crafton substantively match those offered at Redlands. An approved list of courses, applicable to the Core requirements, is available in the Counseling Center. If questions arise, the final decision on whether a course is actually transferable to Redlands is made by the Registrar at that institution. You may transfer up to 66 lower division units to the University of Redlands.

FACULTY

The dates in parentheses indicate the year of appointment to the San Bernardino Community College District.

ALVERSON, SYLVIA M. (1981) — Emergency Medical Services
Assistant Professor
A.A., College of the Desert
B.S., Southern Illinois University

ANDREWS, SANDRA (1985) — Emergency Medical Services
Assistant Professor
A.S., Weber State College

BISI, JAMES G. (1968) — Counseling
Professor
B.S., California State College (PA)
M.A., California State University, San Jose
Ed.D., Nova University

BLUME, HARRIET C. (1979) — Foreign Language
Associate Professor
B.A., Oberlin College, Oberlin, Ohio
Diplome de litterature, Francaise Contemporaine, University of Paris
M.A., University of Redlands

BOOTH, RICHARD (1972) — English
Professor
B.A., University of California, Santa Barbara
M.A., California State University, San Diego

BRAINARD, CEYLON ANTHONY (1976) — Respiratory Care
Associate Professor
B.A., University of Redlands

BRYSON, KENNITH L. (1979) — Respiratory Care / Radiologic Technology
Associate Professor
B.V.E., California State College, San Bernardino

BYRON, ELIZABETH J. (1979) — Library
Associate Professor
B.A., University of Redlands
M.S., California State University, Fullerton

CABANILLA, CLIFFORD D. (1966) — Theatre Arts
Professor
B.S., M.A., Brighani Young University

CARTER, MARIAN T. (1970) — Reading/Speech/Psychology
Associate Professor
B.A., M.S., University of Omaha

CLOPINE, GORDON A. (1961) — Geology/Anthropology/ Geography/Oceanography
Professor
B.S., University of Redlands
M.S., University of Houston
Registered Geologist, State of California

COLVEY, KIRSTIN (1981) — Handicapped Services
Assistant Professor
B.A., University of California, Santa Cruz
M.S., Pepperdine University

DEMING, MERRILL, (1978) — Learning Resource Center
Associate Professor
B.A., The George Washington University
M.A., California State University, San Bernardino

DE SALLIERS, DEBORAH (1976) — Physical Education
Associate Professor
B.S., Pepperdine University
M.S., University of California, Los Angeles

EDWARDS, JAY C. (1982) — Computer and Information Sciences
Assistant Professor
B.G.S., University of Nebraska

FRANKLIN, BRADLEY H. (1979) — Respiratory Care
Assistant Professor
B.S., University of Missouri

GALBRAITH, ROBERT T. (1967) — Biology/ Oceanography
Professor
B.A., University of California, Santa Barbara
M.A., California State University, Long Beach

GIACONA, JUDITH A. (1981) (Part-time) College Nurse
Assistant Professor
B.S., Walla Walla College, Washington

GOMEZ, LUIS (1976)
Assistant Dean, Student Services
B.A., M.A., California State University, San Bernardino
Ed.D., University of Southern California, Los Angeles

GONZALEZ, RAYMOND (1972) Foreign Language
Professor
B.A., M.A., University of California, Riverside

GRIFFITH, BARTON L. (1976) Marketing & Business Administration
Professor
B.S., University of Denver
M.A., Northern Colorado State University

HOLBROOK, JAMES (1984) Emergency Medical Services
Assistant Professor
National Registry Emergency Medical Paramedic, Loma Linda University

HOLTKE, GERALD A. (1975) Accounting
Professor
B.B.A., University of Cincinnati
M.B.A., University of Santa Clara

HOOKER, MARIE A, (1982) (Part-time) College Nurse
Assistant Professor
B.S., Columbia Union College

HULTEN, GARY A. (1977) Respiratory Care
Assistant Professor
B.V.E., California State University, San Bernardino

KADOW, EUGENE V. (1977)
Director, Continuing Education
A.B., M.A., Fresno State College

KIBBY, RONALD O. (1977)
Assistant Dean, Occupational Education
A.A., Stockton College
A.B., University of Southern California
M.A., University of Redlands

KLING, FRANCIS J. (1965) Sociology
Professor
B.A., California State College, Stanislaus
M.A., San Diego State University

LESIGHT, KENNETH (1979) Music
Associate Professor
B.S., The Pennsylvania State University
M.A., Stephen F. Austin State University

LICERIO, MAMERTO D. (1979) Handicapped Services
Associate Professor
B.A., M.S., San Francisco State University

McCLANAHAN, ELAINE B. (1977) Microbiology
Professor
B.S., State University of New York, Albany
M.A., California State University, Fullerton

McCUNE, RONALD M. (1977) Allied Health/Anatomy/Physiology
Assistant Professor
B.A., Pepperdine University

MICHAELIS, KENNETH (1973) Anatomy/Physiology
Associate Professor
B.A., Columbia Union College
M.A., Walla Walla College

MILLER, ARTHUR F. (1974) Psychology
Associate Professor
B.A., M.A., Ed.D., Northern Colorado University, Greeley

MILLOY, WAYNE (1976) Mathematics
Professor
B.S., M.A.T., University of Redlands
Ed.D., Nova University

NEUMAN, VIOLET H. (1976) Counseling
Professor
B.S., Northern Illinois University
M.A., California State College, San Bernardino

ORR, BILL (1971) Mathematics
Professor
B.S., California State Polytechnic University, Pomona
M.S., University of Oregon, Eugene
Ed.D., Nova University

PEREZ, MARIO A. (1974) History
Assistant Professor
A.A., San Bernardino Valley College
B.A., M.A., University of California, Riverside

RIOS, AGUSTIN J. EOPS Coordinator
Assistant Professor
B.A., University of California, Riverside

SCHMIDT, ROGER L. (1963) Philosophy/Religious Studies
Professor
B.A., University of Redlands
M.A., Claremont Graduate School

SHAW, RAYMOND W. (1983) Fire Technology
Assistant Professor
A.A., San Bernardino Valley College

SINGER, DONALD L. (1982)
President
B.A., M.S., M.A., Ph.D., University of Southern California

SNOWHITE, MARK S. (1967) English
Professor
B.A., University of Maryland
M.A., University of California, Riverside

STEFFY, SHARON (1986) Emergency Medical Services
Instructor
B.S.N., California State College, Long Beach

STODDARD, JOAN G. (1980)
Dean of Instruction
A.B., Occidental College
M.A., California State University, Long Beach
Ph.D., Northwestern University

TARIKA, ANDREA L. (1971) Psychology
Professor
B.A., University of Arizona
M.A., University of the Pacific

TAYLOR, KATHARYN K. (1979) Respiratory Care
Assistant Professor
B.S., California State Polytechnic University, Pomona

THOMERSON, C. BENSON (1969) — English
Professor
A.B., M.A., California State University, San Diego

THURMAN, LAURENS K. (1972) — Physics/Astronomy
Associate Professor
B.A., M.A., University of California, Riverside

TUNG, LINDA P. (1972) — Mathematics
Professor
B.S., Chiao-tung University
B.S., Hong Kong Baptist College
M.S., California State University, Los Angeles
Ph.D., University of California, Riverside

VAJNA, SUSAN (1986) — Office Administration
Instructor
A.A., San Bernardino Valley College
B.A., California State University, San Bernardino

WINNINGHAM, LAURA — Library
Assistant Professor
B.A., B.S., California State Polytechnic University
M.A., University of Southern California

WIRTA-KOSMATKA, ARNOLD L. (1978) — Respiratory Care
Assistant Professor
B.A., University of Redlands

WIRZ, DONALD R. (1972) — Chemistry
Associate Professor
B.S., University of Redlands
M.S., Ph.D., Wayne State University

WRIGHT, WILLIAM R. (1977) — Work Experience
Professor
B.V.E., M.A., California State University, Los Angeles

WURMBRAND, MARC (1972) — Art
Associate Professor
B.F.A., Cooper Union
M.F.A., Yale University

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
DORIS BOARDMAN (1961-1982)	Library
JOSEPHINE E. BROHOLM (1947-1975)	Speech
EDWARD L. CHAPIN, JR. (1953-1987)	Assistant Dean, Continuing Education and Community Services
RICHARD H. GATCHEL (1971-1987)	Philosophy/Religious Studies
VIRGINIA M. GAUSTAD (1970-1987)	Office Administration
KENNETH L. GRUB (1965-1982))	History
WILLIAM H. HOYT (1955-1987)	Physical Education
CLARENCE D. LAMBERT (1965-1987)	Chemistry
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

DEAN EMERITUS

DON A. YOWELL (1972-1987)	Dean, Student Personnel Services

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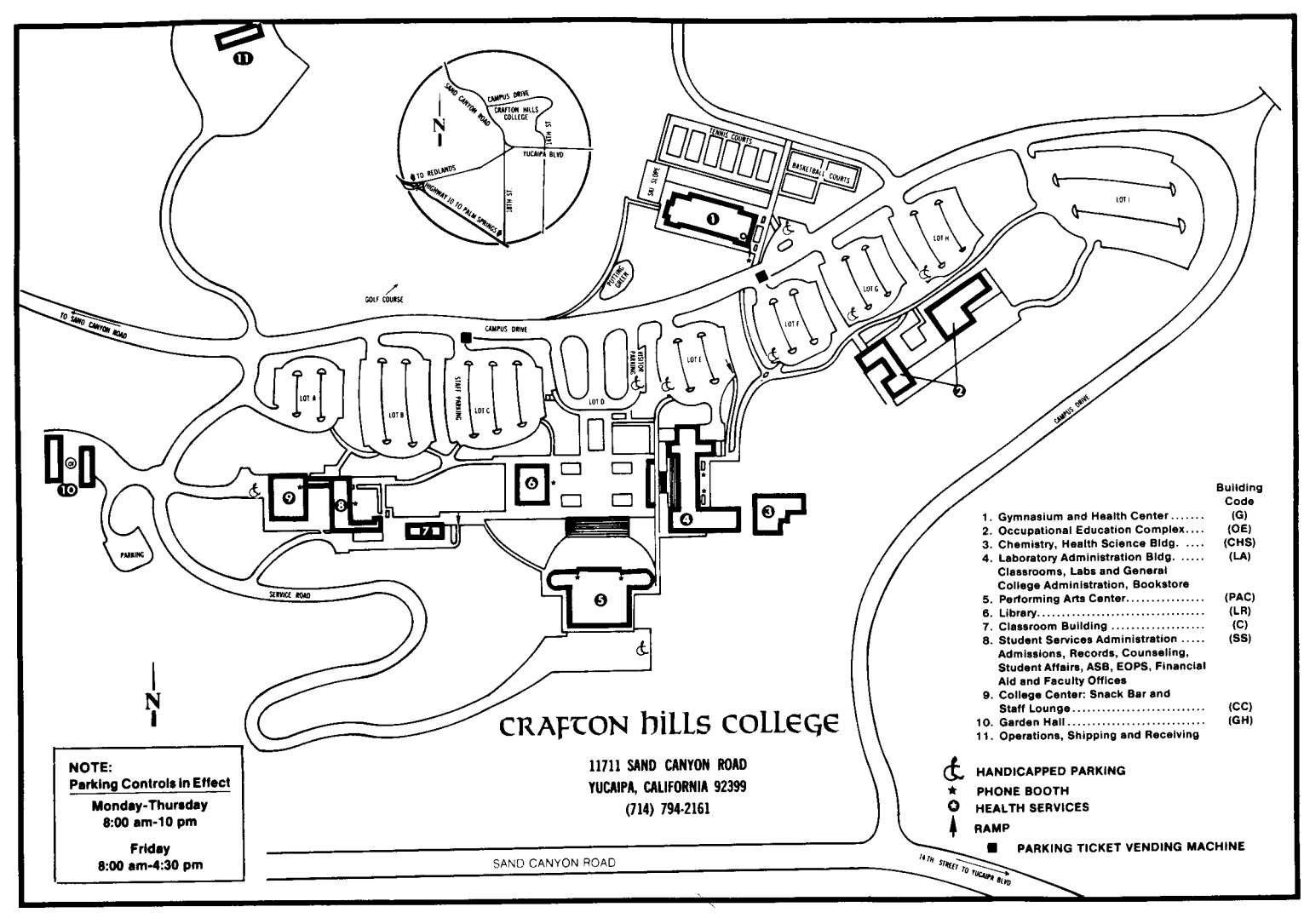

CRAFTON HILLS COLLEGE

11711 SAND CANYON ROAD
YUCAIPA, CALIFORNIA 92399
(714) 794-2161

	Building Code
1. Gymnasium and Health Center	(G)
2. Occupational Education Complex	(OE)
3. Chemistry, Health Science Bldg.	(CHS)
4. Laboratory Administration Bldg. Classrooms, Labs and General College Administration, Bookstore	(LA)
5. Performing Arts Center	(PAC)
6. Library	(LR)
7. Classroom Building	(C)
8. Student Services Administration Admissions, Records, Counseling, Student Affairs, ASB, EOPS, Financial Aid and Faculty Offices	(SS)
9. College Center: Snack Bar and Staff Lounge	(CC)
10. Garden Hall	(GH)
11. Operations, Shipping and Receiving	

HANDICAPPED PARKING
PHONE BOOTH
HEALTH SERVICES
RAMP
PARKING TICKET VENDING MACHINE

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Friday
8:00 am-4:30 pm