

## Crafton Hills College

## 1983-1985 Catalog

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# CRAFTON HILLS COLLEGE <br> A Public Community College in California <br> <br> Catalog 1983-1985 

 <br> <br> Catalog 1983-1985}

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## CRAFTON HILLS COLLEGE

## 1983-84 ACADEMIC YEAR

## FALL SEMESTER 1983

Registration and Program Advisement Late Registration
Instruction Begins - Day Classes
Instruction Begins - Continuing
Education Classes
Veterans Day - Holiday
Thanksgiving Recess - Holidays
Christmas Recess - Holidays
First Semester Ends

August 30, 31; Sept. 1, 6, 7, 8, 1983
Sept. 12, 13, 14, 1983
September 12
September 12
November 11
November 24, 25
December 19-January 2
January 28, 1984

## SPRING SEMESTER 1984

Registration and Program Advisement Late Registration
Instruction Begins
Lincoln's Birthday - Holiday
(No classes February 13).
Washington's Birthday - Holiday
Spring Recess - Holidays
Memorial Day - Holiday
Second Semester Ends

January 24, 25, 26, 30, 31; Feb. 1, 1984
February 2,3,1984
February 2
February 13
February 20
April 16-20
May 28
June 15

## SUMMER SESSION 1984

Registration and Program Advisement
Late Registration
Instruction Begins
Independence Day - Holiday
Make-up for Independence Day Holiday
End of Six-week Session
End of Eight-week Session

June 18, 19, 20, 21, 1984
June 25,26, 1984
June 25
July 4
July 6
August 2
August 16

Dates for 1984-85 not available at time of printing

## CRAFTON HILLS COLLEGE FOUNDATION

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

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## SECTION I

## GENERAL INFORMATION

## ABOUT THE COLLEGE

Located on 523 acres in the Crafton Hills, the College is set in contrast against the noise and pace of the metropolitan sprawl reaching from Los Angeles through San Bernardino. The campus 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 and pop groups, theater, and a varied lecture series add diversity to the student's experience at Crafton Hills College. Student activities, including intramural sports, are available to those who are interested. Tennis, basketball, and volleyball are popular, as well as golf on the campus' six-hole course. Two exercise rooms and jogging trails 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. Although the College is still young, it has already 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, two year, 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. Growth since then has been steady. 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, Needles, 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 twentyseven. 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 return to work.

Students choose Crafton Hills College not simply because it's free. People of all backgrounds prefer it 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, a campus of learning, a community in which all are students. Crafton Hills College accepts the responsibilities of a community college 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 has provided 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, in a vocational field, or in an avocational venture;
5. Advising and counseling for educational, occupational, and personal planning; and
6. Community services which encourage the residents of the community to use college resources for cultural and recreational activities.
7. Remedial programs in fundamental skills for increased effectiveness in pursuing the basic objectives of the College.

## 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.

See special sections for admission requirements if you are a high school student or an international student.

## 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 Therapy Program. An English placement examination is required if you want to take English 100. Contact a counselor for details.

## 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 his/her own residence.
5. A student who remains in the state after his 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 or her time as a resident minor with his or 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 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 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 $\$ 750$ 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 residency 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.

## TUITION

A student classified as a nonresident will be required to pay, in addition to other fees required by the college, nonresident 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 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; attach 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 both is present in California and has manifested clear intent to become a California resident.

## HIGH SCHOOL STUDENTS

High school juniors and seniors may enroll as special part-time students with the written permission of their principal and the approval of the Dean of Student Personnel Services. Only those who have completed their junior year may enroll in Summer Session. Units earned may be used for either high school or college credit, but not both.

## 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:
$\begin{array}{ll}\text { July } 1 & \text { for Fall Semester } \\ \text { December 1 } & \text { for Spring Semester } \\ \text { April 15 } & \text { for Summer Session }\end{array}$
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 U.S. Immigration student visa 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 office of the Dean of Student Personnel Services 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.
6. You may not be employed during your first semester at Crafton Hills College. With a grade point average of 2.0 or better in all units attempted, you may obtain employment after the first semester.

## 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.

## 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 veteran's benefits.
4. Take placement examinations if appropriate. Placement examinations are required for entrance into the Paramedic Program and the Respiratory Therapy Program. An English placement examination is required if you want to take English 100. Contact a counselor for details.

## COSTS

See the class schedule for fees and other costs.
If you are nota legal resident of California, you must pay the current nonresident tuition fees.

## STUDENT SERVICES

Under the direction of the Dean of Student Personnel Services, a team of committed 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 important, 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, 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.

At the time of printing, this catalog is a true and accurate compilation of the College curriculum, degree requirements, and policies.

## 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, a Health Information Resource Center is available in the library. Videotapes on various health issues are shown continuously in the lobby on the third floor. Filmstrips for private viewing regarding personal subjects are in LR-314. Information on the operation of equipment and selection of films can be obtained in the Learning Center or Health Services Center.

## 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 which are detailed in the Student Handbook. Copies of the Handbook are available during registration, in the College Library, or in the Office of the Dean of Student Personnel Services.

## 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. Students whose annual family income is less than $\$ 8,250$ for a family of four are eligible for E.O.P.S.

To apply for the program, just write or call the E.O.P.S. office, Crafton Hills College, 11711 Sand Canyon Road, Yucaipa, California 92399, or telephone 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. A few of the special-interest clubs in operation at the College are the Ski Club, the Agriculture Club, the Philosophy Club, and Campus Christians. Students with other special interests can petition the Student Central Council to form clubs.

## 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 of San Bernarclino 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 for junior standing at most four-year college 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 large 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, both on and off campus, and off campus during the day. Evening hours and off campus locations make it possible for people who cannot come to the campus and/or 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, evening, and off campus. 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 the 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 and seminars to members of the community. This office also oversees the operation of the six-hole Golf Course, which is open to the public on weekends, and the Tennis Courts, which are free.

## INSTRUCTIONAL BROADCASTING SERVICES/ TELEVISION

Crafton Hills College regularly participates in the San Bernardino Community College District Instructional Broadcasting Services (IBS) Project. 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 a series of plays in the spectacular Prospect Park open air theatre in Redlands.

In addition to these programs, the Crafton Hills College Academic Senate's Special Programs Committee periodically brings cultural and intellectual programs to the campus. These are open to the community free of charge.

## WORK EXPERIENCE EDUCATION

Through its work experience program, the College makes it possible for you to earn college credit for employment 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, including the four units of work experience.

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 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 64,000 volumes plus 5,800 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.

Besides these basic services, the Learning Resource Center offers the following specialized types of help:

Provides tapes of all TV courses for students to watch.
Copies audio tapes for both students and faculty members, as requested
Students with special needs are encouraged to meet with the Director of the Learning Resource Center to discuss the desirability of setting up a short-term 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. - 3:00 p.m. However, at the beginning of each academic term the Bookstore also maintains evening hours for a short period of time. Check with the Switchboard for specific hours.

The College Center: A snack bar is located in the College Center, providing hot breakfasts in the morning, sandwiches and snacks at noon and in the evening.

## 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 prerequiqites 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. It 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. Procedures for filing complaints are spelled out in the Student Handbook.

## AUDITING COURSES

State regulations prohibit you from attending on a regular basis classes in which you are not officially enrolled.

## 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 (13) 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.

## STUDENT LEVEL

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 sisty 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 division/department chairperson or his/her designee.

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 major 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 "I" (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 4th 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, "W's" 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 foreign language department head.

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.

## 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.

## 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.

## 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 |  |
| :---: | :--- | :--- |
| F | Failing |  |
| CR | Credit (at least satisfactory) | 0 |
| NC | No Credit (less than satisfactory) | 0 |
| Non-Evaluative | Definition |  |
| Symbols | Incomplete | Comments |
| I | Withdrawal | Instructor documenta- <br> tion required |
| W | Student or instructor |  |
| drop |  |  |

## 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.

## 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 schlastic 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 "NC's," "I's" and "W's" 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.

## 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 ot 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

You may repeat only those courses in which you received a grade of D, F, or NC. A course will count only one time in computing the total units toward a degree or a certificate. A course may be repeated just once.

## 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, it 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 at registration, in the Library, and in the Student Services 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 which relates to 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. The college administrator in charge of record maintenance at Crafton Hills College is the Dean of Student Personnel Services.

On occasion, the college will publicize the names of students participating in programs, intramurals, commencement, and other activities. If you do not wish your name to appear in materials related to the above events, please complete the Privacy Act card during registration.

## 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 051 or any higher-level mathematics course with a grade of C or better.
6. Writing competency as demonstrated by a grade of " C " or better in English 015 or English 100.
7. 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 any combination of courses in Psychology 023, $024,025,026$, and 027 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.
8. Completion of twenty-four semester units of general education units must be distributed as indicated: three units in category 8 a and three to six units in each of $8 \mathrm{~b}, 8 \mathrm{c}, 8 \mathrm{~d}$, and 8 e . 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 7d above.
a. English (3 units): 015, 100, 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, 105 and 108

English - except 001, 002, 011, 012, 013, 014, 015, 100, 144, 234, 235
Foreign Languages
History 153, 160, 161, 163, 166, 167**
Interdisciplinary Studies
Music 100, 120, 121, 124, 125
Philosophy
Religious Studies
Speech 120, 122
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, 108
Music: All courses may apply except $100,120,121,124,125$
Photography, except 154
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 $023,024,025,026,027,050,055$, and 058)
Sociology
***Some courses may also be used for Humanities
e. Communication and Analytical Thinking (3-6 units)

Business Administration 052
Computer and Information Sciences (except 100, 101, 106)
Mathematics (except 001)
Philosophy 103
Speech 103, 105, 111, 141, 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.

## SECTION II COURSE DESCRIPTIONS

Accounting
Administration of Justice
Agriculture
Allied Health Sciences
Anatomy/Physiology
Anthropology
Art
Astronomy
Biology
Business Administration
Chemistry
Computer and Information Sciences
Economics
Emergency Medical Services
English
Fire Technology
French
Geography
Geology
German
Health Education
History

Interdisciplinary Studies
Marketing
Mathematics
Microbiology
Music
Office Administration
Oceanography
Philosophy
Photography
Physical Education
Physics
Political Science
Psychology
Real Estate
Religious Studies
Respiratory Therapy
Sociology
Spanish
Speech
Supervision
Theatre Arts

## NUMBERING OF COURSES

000-009
010-099
100-299

Basic skills courses applicable only to the Associate degree or designated certificate.
Multipurpose courses, not generally applicable to the baccalaureate degree; some may be transferable for specific majors.
Basic lower division courses applicable to the baccalaureate degree.

## 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, $\left({ }^{*}\right)$ there is a limitation on the credit allowed For specific details, check with a counselor.

## ACCOUNTING

098 ABCD Accounting Work Experience 4 Units
Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Lecture: 1 hour per week and
Work Experience: 15 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; esamination 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 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.

[^0]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

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
Laboratory: 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 endeavor, 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.

246 ABC Special Problems in Accounting 1 Unit
with a special interest in accounting, involving library research, laboratory experiments, and/ or field studies.

# ADMINISTRATION OF JUSTICE 

## 051 Vice Control <br> Prerequisite: None.

3 Units
Lecture: 3 hours per week
Study of code and case law relating to vice detection, investigation and suspension; apprehension and prosecution of violators; emphasis on laws dealing with gambling, prostitution, narcotics and sex offenders.

060 Fingerprints
3 Units
Prerequisite: None.
Lecture: 3 hours per week
Examination of the science of fingerprints in the field of law enforcement, including techniques and procedures involved in classification, latent impressions and court presentation.

098 ABCD Administration of Justice Work
Experience
Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Lecture: 1 hour per week and
Work Experience: 15 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.

2Units
248 ABC 3Units
Prerequisite: Completion of 4 Units in accounting.
Laboratory: 3 hours per week per unit.
Independent projects for selected students
247 ABC

102 Principles and Procedures of the Justice System 3 Units
UC
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
UC
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; hinds and degrees of evidenceand 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 basic principles of various types of investigations utilized in the justice system; problems in dealing with the public, specific knowledge necessary for handling crime scenes, interviews, evidence, surveillance, technical resources, and case preparations.

## 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 placed upon 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.

## 109 Police Records and Report <br> Writing <br> 3 Units <br> Prerequisite: None. <br> Lecture: 3 hours per week

Development of report writing skills; study of basic English grammar, usage, and functional sentence structure correlated with the applied needs of law, enforcement and the court systerns; stress on neatness, factual detail, brevity, and clarity.

## 110 Physical Evidence and Crime Scene Investigation 3 Units

 Prerequisite: None. Lecture: 3 hours per weekPractical application of established techniques of physical evidence handling; development of experience in recognition of evidence types with respect to crime scene investigations; development of an appreciation for physical evidence in the realm of the criminal justice system.

## AGRICULTURE

## 050 ABCD HorticultureWorkshop

1-3 Units
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 3-9 hours per week
Development of general horticulture skills; study of techniques of maintenance, transplanting, canning, potting, and vegetative production found in the average home or nursery. Course hours arranged with the instructor; student project required.

051 AB Indoor Plants and Gardens 2 Units Prerequisite: None.
Lecture: 1 hour per week and
Laboratory: 3 hours per week
Exploration of indoor culturing techniques for healthy container-grown house plants; methods of identification and design for containers; practical application of propagation for house plants.

052 ABCD Horticulture for the Home
2 Units
Prerequisite: None. Courses must be taken in sequence.
Lecture: 1 hour per week
Laboratory: 3 hours per week
Planning and installation of the home garden; maintenance and management of lawns, ground covers, shrubs, trees and planters. Emphasis on plant propagation, selection and culture; small space gardens, accent plantings.

090 ABCD Selected Topicsin Agriculture $1 / 2-4$ Units
Prerequisite: None.
Lecture: $1 / 2-4$ hours per week and
Laboratory: $11 / 2-3$ hours perweek
Study of topics of current interest in the field of agriculture.

098 ABCD AgricultureWork Experience
2-4 Units
Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment in at least 7 units including this course.
Lecture: 1 hour per week and
WorkExperience: $7 \%$ - 15 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 Fundamentals of Ornamental Horticulture

3 Units Prerequisite: None.
Lecture: 3 hours per week
Introduction to horticulture gardening and a preview of the nursery industry; general study of the fundamental skills necessary for planting and maintaining a home garden.

## 101 Plant Identification: Indoor Plants

2 Units

## Prerequisite: None.

Lecture: 2 hours per week
Identification of indoor plants with emphasis on their proper culture and care.

102 Plant Identification: Shrubs 2-3 Units Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week (optional for non-majors)
Identification. landscape uses, ecology and culture of shrubs, vines and ground covers commonly grown in California.

103 Plant Identification: Trees 2-3 Units
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week (optional for non-majors)
Identification, landscape uses, ecology and culture of trees commonly grown in California.

104 Plant Identification: Herbaceous Plants
2-3 Units
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week (optional for non-majors)
Identification, landscape uses, ecology and culture of annuals, herbaceous perennials, houseplants and bulbs commonly grown in California.

105 Plant Identification: California Native
Plant Materials 2-3 Units
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week (optional for non-majors)
Study of California native plants suitable for landscape purposes: their identification, habits of growth and cultural requirements.

111 Nursery Practices 3 Units
Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Practices in plant production, including seedage and vegetative propagation of trees, shrubs, ground covers, and bedding plants. Transplanting, canning, potting and soil mixes and fertilizers.

112 Plant Propagation
2-3 Units
Prerequisite: Agri 111.
Lecture: 1-2 hours per week and
Laborator!: 3 hours per week
Examination of nursery and plant preparation practices; principles of sexual and asexual propagation; budding, cuttings, layering, division, and separation; propagation of bedding plants, greenhouse plants, trees and shrubs.

114AB Retail Nursery Management 3 Units Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Study of the retail nursery and florist industry; review of the legal aspects and economics of operating a business; consideration of site selection, layout of a shop and sales yard, purchase of
supplies inventory control, quality control, sales and services, advertising, labor costs and public relations.

122 Introduction to Forestry and Natural

## Resources

2 Units
Prerequisite: None.
Lecture: 1 hour per week
Laboratory: 3 hours per week
Survey of the use and management of natural resources including forestry (tree farming), water, wildlife, minerals, parks and alternate energy resources.

130 Landscape Maintenance
3 Units
Prerequisite: None.
Lecture: 2 hours per week
Laboratory: 3 hours per week
General care and maintenance of establishing plants and installation of new planting; watering, pruning, fertilizing and pest control; usage and maintenance of related equipment.

## 131 Landscape Construction

3 Units Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Construction of walks, planters, flowerbeds, terraces, fences, patio structures, walls and garden ponds. Installation of benderhoard and irrigation equipment in the landscape.

## 132 Irrigation and Sprinklers

3 Units Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Principles of irrigation, methods of application, types of materials and automatic systems, including valves, sprinklers and their installation.

## 133 Turf Management

3 Units
Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Practices in management and maintenance of turf areas, including installation, scalping, mowing, watering, fertilizing and disease control; orientation to turf maintenance equipment.

## 134 Greens Keeping

3 Units
Prerequisite:Agri 133
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Study of the management and culture of golf greens; responses of the turf grasses to environ-
mental factors such as air pollution, soil conditions, water temperature, and fertility; control of diseases and pests.

## 135 Plant Pest Control

3 Units
Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Identification and recognition of common diseases, weeds, insect pests, control methods, spray materials and application of pesticides.

## 136 Greenhouse Management <br> 3 units

Prerequisite: Agri 101
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Design and management of different types of greenhouses. Maintenance heating, cooling, humidification systems and their controls, automatic watering systems and fertilizer systems and methods.

137 Residential Landscape Design 3 Units Prerequisite: Agri 102 and 103
Lecture: 2 hours per week and
Laboratory 3 hours per week
Landscape design of residential properties; layout and cost estimating; uses of trees, shrubs, lawns, ground covers, fencing, walk, and walkways.

139 Soils and Fertilizers 3 Units
Prerequisite: None.
Lecture: 2 hours per week and
Laboratory: 3 hours per week
Examination of the general properties of soils, soil management, conservation, and fertility; maintenance of soils under crop conditions, values, and use of fertilizers.

150 AB Floral Design I
2 Units
Prerequisite: None.
Lecture: 1 hour per week and
Laboratory 3 hours per week
Basic principles and uses of floral arrangements and floral design for the individual going into the floral industry.

151 ABCD Floral Design II 1-3 Units
Prerequisite: Agri 150
Lecture: $1 / 2-1$ hour per week and/or
Laboratory: $11 / 2-6$ hours per week
Principles of professional floral design and floral shop procedures.

152 ABCD Floral Design III
Prerequisite:Agri 151
Lecture: 1 hour per week and
Laboratory: 3 hours per week
Advanced floral design, study of display plantings; methods of floral shop management.

246 AB Special Problems in Horticulture
1 Unit
247 AB
2Units

248 AB
3Units
Prerequisite: Completion of one course in Agriculture.
Laboratory: 3-9 hours per week
Independent projects for selected students with a special interest in ornamental horticulture.

# ALLIED HEALTH SCIENCES 

098 ABCD Allied Health Work Experience
4 Units
Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Lecture: 1 hour per week and
Work Experience: 15 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.

## 119 ABCD Selected Topics in Allied Health

Sciences
$1 / 2-3$ Units
Prerequisite: None.
Lecture: $1 / 2-3$ hours per week and/or
Laboratory: $1 \frac{1}{2}-9$ hours per week
Examination of current information on selected topics in allied health sciences; topics selected will include legal provisions for licen-
sure, supervision of personnel, and topics in microbiology, chemistry and laboratory management as applied to the allied health sciences.

206 Medico Legal Aspects 2 Units Prerequisite: None.

## Lecture: 2 hours per week

Examination of the law as it relates to the practice of medicine; study of specific local, state, and federal laws and regulations governing health care in California.

## 210 Introduction to Pathophysiology <br> 3 <br> 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.

## 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.

## 247 Special Problems in Anatomy and

 Physiology2 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-bearing 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
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.

## 246 ABCD Special Problemsin

Anthropology
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 and field trips
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.

## 108 Survey of Mexican Art

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

Survey of the painting, architecture and sculpture of Mexico from pre-Columbian times to the present.

115 Basic Design - Beginning 3 Units UC
Prerequisite: None.
Lecture: 1 hour per week and
Laboratory: 5 hours per week
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.

116 Basic Design - Advanced 3 Units UC
Prerequisite: Art 115
Lecture: 1 hour per week and
1 Unit Laboratory: 5 hours per week
Further exploration of the creative process, involving access to a wide variety of resources, tools, and materials employed in visual communication.

117 Drawing - Beginning 1½-3 Units UC*
Prerequisite: None.
Lecture: $1 / 2-1$ hour per week
Laboratory: $2^{1 / 2}-5$ hours per week
Analysis and representation of form and space, using a variety of media and including perspectiveprojects.

118 Drawing - Advanced $112-3$ Units
UC* UC*
Prerequisite: Art 117
Lecture: $1 / 2-1$ hour per week and
Laboratory: $2 \frac{1}{2}-5$ hours per week
Further investigation and interpretation of form and space, using a variety of media and continuing the theory and application of perspective.

130 Lettering
4 Units
Prerequisite: None. Concurrent enrollment in Art 115 recommended.
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Introduction to commercial art with an emphasis on hand lettering and including historical relationships, tool and material familiarization, skill development, studio procedures, and presentation techniques.

## 131 Advanced Lettering

4 Units
Prerequisite: Art 130
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Advanced commercial art with an emphasis on machine lettering and including equipment familiarization, appropriate technique manipulations, format experimentation, and portfolio presentation,

156 ABCD Elementary Painting 1½-3 Units UC*
Prerequisite; None. Courses must be taken in sequence.
Lecture: $1 / 2-1$ hour per week and
Laboratory: $2^{112}-5$ hours per week
Painting in watercolor and oils: still life, landscape, and figure painting.

## 166 ABCD LifeDrawing 1½-3Units UC* <br> Prerequisite: None. Courses must be taken in sequence.

Lecture: 55-1 hourperweek and
Laboratory: $2^{112}-5$ hours per week
Study of the functional qualities of the human figure, including an overview of anatomy in relation to figure drawing; graphic inter-
pretations of the human figure, including contour, gesture, and volume drawings. Portrait painting and commercial illustration are introduced in the second semester.

## 175 ABCD Sculpture

3 Units UC*
Prerequisite: None. Courses must be taken in sequence.
Lecture: 1 hour per week and
Laboratory: 5 hours per week
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.
198 ABCD Metal Sculpture
UC*
Prerequisite: None. Courses must be taken in
sequence.

Lecture: 2 hours per week and
Laboratory: 5 hours per week
Integration of the aesthetic and technical aspects of creating three-dimensional works of art in metal: skills in three-dimensional design are combined with the fundamentals of welding technology.

210 Beginning Ceramics 3 Units
UC*
Prerequisite: None.
Lecture: 1 hour per week and
Laboratory: 5 hours per week
Introduction to the art of pottery, with emphasis on use of the potter's wheel and various methods of decoration and glazing.
246 Special Projects in Art
1 Unit

247 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.

280 Experimental Imagery in Art 4 Units UC
Prerequisite: Art 115 and 116
Lecture: 2 hours per week and
Laboratory: 5 hours per week

Focus on and refinement of the skills necessary for visual awareness. This course is designed to serve as a stimulating creative outlet for new, experimental technical processes.

## ASTRONOMY

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

060 •061
062 •063 Field Study of Observatories
1 Unit
Prerequisite: A previous Astronomy course.
Lecture: 10 hours per semester and
Field Study: 30 hours per semester
Field study of professional observatories: lecture and library research on current professional instruments and techniques will precede a one-week field trip to several major astronomical observatories. Field trip destinations will vary, but will include facilities such as Kitt Peak National Observatory, Lick Observatory, McDonald Observatory and Palomar Observatory.

## 150 Introductory Astronomy

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 <br> 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 andaccessories.

## 175 ABCD Selected Topics in Astronomy

1-3 Units
Prerequisite: To he determined by course topic. Lecture: 1-3 hours per week and
Laboratory: 3-9 hours per week
Current information on selected topics in astronomy.

246 AB Special Problems in Astronomy
1 Unit

247 AB
2Units
Prerequisite: Astronomy 160
Laboratory: 3-6 hours per week
Laboratory projects designed for students with a special interest in astronomy.

## BIOLOGY

120 Introduction to Biology 4 Units UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 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.
$124 \cdot 125$ Field Biology of the Southern 126 California Foothills 1 Unit UC
Prerequisite: Completion of or concurrent enrollment in a course in college science. Courses need not be taken in sequence.
Laboratory or Field Work: 3 hours per week
Study of the plants, animals, and ecological relationships in the Southern California foothills.

127•128 Subtidal Marine Biology 1 Unit 129
UC
Prerequisite: None. Courses need not be taken in sequence.
Laboratory and Field Work: 3 hours per week
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
5 Units
UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 6 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. Majors should also take Biology 131.

## 131 Principles of Biological Science - <br> Botany <br> 5 Units

UC
Prerequisite: None.
Lecture: 3 hours per week and
Laboratory: 6 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 toField Biology $11 / 2$
152 Units
UC
Prerequisite: A college course in the biological science with a grade of "C"or better. Courses need not be taken in sequence.
Lecture: 1 hour per week and
Laboratory/Field Trips: 24 hours arranged
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.

## 155 Nutrition <br> 3 Units UC

Prerequisite: None. High school or college chemistry or biology recommended.
Lecture: 3 hours per week
Study of chemical and biological concepts which provide a basis for understanding how nutrients work within the human body; topics include biochemistry of nutrients, applied nutrition, diet therapy, nutrition and disease, and research studies. Satisfies a lower division transfer requirement in nutrition.

201 Biology of the Cell
4 Units
UC
Prerequisite: Chemistry 160
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Introduction to the physical and biochemical aspects of the living cell, including cytology, molecular structure, metabolism, bioenergetics, and cytogenetics. Designed for pre-professional Life Science students.
$214 \cdot 215$ Biology (Laboratory Preparation) $216 \cdot 217$ 1Unit Prerequisite: Biology 120. Courses need not be taken in sequence.
Laboratory: 3 hours per week
Study of practical laboratory techniques, designed to acquaint the student with methods of collection and preparation of common biological materials as used in the biology laboratory.

[^1]with a special interest in biology; assigned problems will involve both library and laboratory work.

## BUSINESS ADMINISTRATION

## 052 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 ABCD BusinessAdministration Work Experience <br> 4 Units

Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment in at least 7 units, including this course.
Lecture: 1 hour per week and
Work Experience: 15 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 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.

115 Office Management 3 Units
Prerequisite; None.
Lecture: 3 hours per week
Study of office organization, management. and functions; methods used in selecting and training office personnel; office layout and work flow; selection and care of equipment and
supplies: simplification of systems and procedures, including automation and data processing; form design and control; case studies.

## 135 Women in Management <br> 3 Units <br> Prerequisite: None.

Lecture: 3 hours per week
Study of the problems, challenges, and resources women encounter in management positions; examination of managment methods as they apply to women.

## 206 Principles of Management

(Organizational Behavior)
3 Units
Prerequisite: Business Admin. 101 or Business Experience
Lecture: 3 hours per week
Concepts and application of management and business; analysis of the basic management functions of planning, organizing, staffing, directing and controlling, with an emphasis on the interrelationship of these functions in an organization; importance of the organization as a social system and the significance of current social and economic problems of a pluralistic society are stressed. Case studies.
217 Business Law
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.

218 Business Law 3 Units UC*
Prerequisite: Business Admin. 217
Lecture: 3 hours per week
Understanding of the practical and theoretical concepts of Civil Law: the future rights, duties and liabilities in the normal conduct of business transactions.

246AB Special Problems in Business Law
1 Unit
247 AB
2 Units
248AB
3 Units
Prerequisite: Completion of or concurrent enrollment in a business course.
Laboratory: 3 hours per week per unit
Directed research, culminating in a mini-
thesis upon a subject within the field of law. or within the combined fields of (1) Law and Politics; (2) Law and Sociology; (3) Law and Economics; (4) Law and Psychology; (5) Law and Social History; or(6)English Legal History.

## CHEMISTRY

## 101 Introductory Chemistry <br> 4 Units <br> UC*

Prerequisite: One year of high school algebra or Math 090.
Lecture: 3 hours per week and
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 Introductory Organic Chemistry

4 Units

## UC*

Prerequisite:Chemistry 101
Lecture: 3 hours per week and
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 tor students who need two semesters of chemistry, including some biochemistry in organic chemistry.

## 160 General Chemistry <br> UC

5 Units
Prerequisite: High school chemistry or Chemistry101
Lecture: 3 hours per week and
Laboratory: 6 hours per week
Introduction to college chemistry, emphasizing the general principles of chemistry and the analysis and solution of chemical problems.

## 161 General Chemistry

5 Units

## UC

Prerequisite: Chemistry 160 with a grade of "C" or better.
Lecture: 3 hours per week and
Laboratory: 6 hours per week
Continuation of Chemistry 160, with special emphasis on the theory and techniques of inorganic qualitative analysis.
$214 \cdot 215$ Organic Chemistry
4Units UC
Prerequisite: Chemistry 160-161 with a grade of "C" or better. Courses must be taken in sequence.
Lecture: 3 hours per week and
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.

1 Unit 2 Units

## 248

3 Units
UC*
Prerequisite: Chemistry 160
Laboratory: 4 hours per week per unit
Laboratory projects for selected students with a special interest in chemistry. The problem is normally selected by the instructor.

## COMPUTER AND INFORMATION SCIENCES

098ABCD Computer and Information
Sciences Work Experience 4 Units Prerequisite: None. Courses must be taken in sequence.
Corequisite: Concurrent enrollment at least 7 units, including this course.
Lecture: 1 hour per week and
Work Experience: 15 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

3 Units Prerequisite: None
Lecture: 3 hours per week and
Laboratory: 1 hour 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 present and future role 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 for manually, mechanically and electronically processing business data. History and development of data processing, punch card processing and programming computers for integrated and automatic processing of business data.

## 102 Basic Language UC*

Prerequisite: C\&IS 101 and 1 year ofhighschool algebra or Math 090.
Lecture: 3 hours per week and
Laborator!.: 1 hour per week
Fundamentals of computer programming and problem solving using the BASIC language; writing, running, and debugging proyams in the interactive computer system to solve both numerical and nonnumerical problems in various areas of applications.

## 104 Fortran IV (Computer Programming)

3 Units
UC*
Prerequisite: C\&IS 101 and 1 yearofhigh school algebra or Math 090.
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Study of Fortran IV as a language supporting any discipline using computer-mathematical methods; emphasis on business applications.

106 Microcomputers
Prerequisite: C\&IS 102
Lecture: 3 hours per week and
Laboratory: 1 hour 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

Prerequisite: C\&IS 101
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Examination of programming concepts, data expressions, and assignments; decisions, syntax and implementation; program design; and program standards.

202 Programming Business Applications:
COBOL I

3 Units

UC*

Prerequisite: C\&IS 101
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Fundamentals of computer logic, flow charting, and documentation techniques; advanced techniques for large scale computing systems. Introduction to COBOL.
203 Programming Business Applications:
COBOL II
UC

UC*
Prerequisite: C\&IS 201
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Continuation of C\&IS 202, development of specialized programming techniques.


#### Abstract

230 Assembly Language 4 Units Prerequisite: C\&IS 104 Lecture: 3 hours per week and Laboratory: 2 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, the effects of the instruction set on computer design, and the function of the computer professional.


## 240 Advanced Programming Techniques 3 Units

Prerequisite: C\&IS 102
Lecture: 3 hours per week and
Laboratory: 1 hour 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 Prerequisite:C\&IS 104
Lecture: 3 hours per week and
Laboratory: 1 hour 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.

## 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.

## 200 Principles of Economics (Macro)

3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to macroeconomic theory and the role of fiscal and monetary policies in economics, with special emphasis on national economicproblems.

## 201 Principles of Economics (Micro)

3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Introduction to microeconomic theory, including international economics, economic development, and comparative economic systems, with special emphasis on microeconomic problems.

## 246 Special Problems in Economics <br> 1 Unit

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247
$$

2 Units UC*
Prerequisite: Economics 204 or 205
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.

## EMERGENCY MEDICAL SERVICES

001A Basic Cardiac Life Support -

## Provider

1/4 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.

001B Basic Cardiac Life Support -
Instructor 1/4-3/4Unit
Prerequisite: EMS 001A
Lecture: 3-9 hours per course and
Laboratory: 3-9 hours per course
Review and update of skills and knowledge necessary to perform cardiopulmonary resuscitation; techniques of teaching with a lab opportunity for practice teaching.

002A Advanced Cardiac Life Support -
Provider 1 Unit
Prerequisite: EMS 001A and must be a M.D., R.N., EMT-P, R.T.,orD.D.S.
(Must hold a current certificate in Basic Life Support from American Red Cross or American Heart Association)
Lecture: 12 hours per semester and
Laboratory: 12 hours per semester
Improvement of the emergency Advanced Life Support skills of professional medical and paramedical personnel.

002B Advanced Cardiac Life Support -
Instructor 1 Unit
Prerequisite: EMS 002A. Must be 18 years of age.
Lecture: 14 hours per semester and
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.

## 003ABCD Basic Cardiac Life Support -

Provider (Recertification) $1 / 8$ Unit Prerequisite:EMS001A
Lecture: 1 hour per semester and
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.

004ABCD Basic Cardiac Life Support -
Instructor (Recertification) $\quad 1 / 4$ Unit Prerequisite: EMS 001A
Lecture: 3 hours per semester and
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.

005ABCD Advanced Cardiac Life Support

- Provider (Recertification) 1/4 Unit

Prerequisite: EMS 002A
Lecture: 3 hours per semester and
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.

006ABCD Advanced Cardiac Life Support

- Instructor (Recertification) 1/4 Unit

Prerequisite: EMS 001B
Lecture: 3 hours per semester and
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.

008 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
Overviews 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.

011A Standard First Aid/Multimedia -
Provider $1 / 4$ Unit
Prerequisite: None.
Lecture: 4 hours per semester and
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.

011B Standard First Aid/Multimedia -
Instructor $\quad 1 / 2$ Unit
Prerequisite: EMS 011A
Lecture: 6 hours per semester and
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.

012A Advanced First Aid and Emergency
Care - Provider
21/4 Units
Prerequisite: None.
Lecture: 32 hours per semester and
Laboratory: 16 hours per semester
Instruction to provide advanced first aid and emergency care knowledge and skills.

012B Advanced First Aid and Emergency Care - Instructor 1 Unit Prerequisite: EMS 012A
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.

013ABCD Standard First Aid/ Multimedia - Provider
(Recertification) $1 / 4$ Unit
Prerequisite: EMS 011A
Lecture: 4 hours per semester and
Laboratory: 4 hours per semester
Information to update skill and knowledge level on a regular basis as dictated by the American RedCross.

015ABCD Advanced First Aid and
Emergency Care - Provider
(Recertification)
1/2 Unit
Prerequisite: EMS 012A
Lecture: 6 hours per semester and Laboratory: 6 hours per semester
Information to update the Advanced First Aid provider with a knowledge of first aid; opportunity to reinforce skill levels.

020B Introduction to Emergency
Medical Services - Emergency Medical
Technician II
1/2 Unit
Prerequisite EMS021B
Lecture 4 hours per semester
Introduction to the pre-hospital care system in rural areas

020C Introduction to Emergency Medical Services - Paramedic 1 Unit Prerequisite: EMS 021B
Lecture: 16 hours per semester
Orientation to paramedic training; discus-
sion of the relationship between the field paramedic and other professionals in the Emergency Medical system; examination of patientfamily 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.

020D Introduction to Emergency
Medical Services - MICN $1 / 4$ Unit
Prerequisite: RN with one year emergency department nurse experience.
Corequisite: EMS 001A, EMS 100A
Lecture: 4 hours per semester
Introduction to the local Emergency Medical Services system.

021A Cardiology for the Technician
Prerequisite: None.
Lecture: 16 hours per semester and
Laboratory: 24 hours per semester
Introduction to basic cardiology; provides the background necessary to function at a technician level.

## 0218 Emergency Medical Technician 1-A <br> 5 Units

## Prerequisite: None

Lecture: 56 hours per semester and
Laboratory: 40 hours per semester and
Clinic: 8 hours per semester and
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.

021 C Emergency Medical Technician 1-NA 5 Units
Prerequisite: None
Lecture: 56 hours per semester and
Laboratory: 40 hours per semester and
Clinic: 10 hours per semester and
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.

022ABCD Emergency Medical
Technician IA (Recertification) $11 / 4$ Units
Prerequisite: EMS 071B or EMS 021C
Lecture: 12 hours per semester and
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.

023A Cardiology for the Emergency
Medical Technician II
3 Units
Prerequisite: EMS 021B
Lecture: 48 hours per semester
Study of recognition and treatment of deathdealing arrhythmias, while in voice contact with the hospital.

0238 Pharmacology for the Emergency
Medical Technician II
2 Units
Prerequisite: EMS 021B
Lecture: 32 hours per semester
Preparation for the safe administration of specific drug groups, while in voice contact with the hospital.

023C Skills Development for the
Emergency Medical Technician II $31 / 2$ Units Prerequisite: EMS 071B
Lecture: 48 hours per semester and
Laboratory: 24 hours per semester
Instruction in and practice 01 those skills necessary to assess the patient, report the findings, and perform the essential treatment skills involved in limited advanced life support.

023D Clinical Externship for the
Emergency Medical Technician II $1 / 2$ Unit Prerequisite: EMS 023C
Clinic: 48 hours per semester
Practice of limited advanced life support in a clinical setting.

024A Field Externship for the Emergency Medical Technician II 1/2 Unit
Prerequisite: EMS 023D
Field: 48 hours per semester
Practice of limited advanced life support in a field mobile intensive care unit.

0248 Preceptorship for the Emergency
Medical Technician II
4 Unit
Prerequisite: EMS 021 B
Clinic: 24 hours per semester
Practice at the student's home medical con-
trol base station hospital; provides an opportunity to develop team relationships with the physician and nurse.

025ABCD Emergency Medical Technician II (Recertification) 3/4 Unit Prerequisite: Must be an EMT-II Lecture: 8 hours per semester and
Laboratory: 8 hours per semester
Information on changes in emergency medical services; evaluation of knowledge and skills.

026A Orientation to Emergency Medical Care: EMT-II to Paramedic $1 / 2$ Unit Prerequisite: EMT-II qualified for Paramedic Program.
Lecture: 8 hours per semester
Review of the emergency medical care system; study of federal, state, and local paramedic regulations; instruction in paramedic protocols.

0268 Cardiology Articulation: EMT-II to Paramedic 1 Unit Prerequisite: EMT-II qualified for Paramedic Program.
Lecture: 4 hours per semester
Laborator?,: 24 hours per semester
Additional knowledge of cardiology; emphasis on telemetry.

026C Pharmacology Articulation: EMT-II to Paramedic

1 Unit
Prerequisite: EMT-II qualified for Paramedic Program.
Lecture: 16 hours per semester
Review of pharmacology and drug therapy. presentation of information on drugs administered by paramedics.

026D Skills Development Articulation:
EMT-II to Paramedic
2 Units
Prerequisite: EMT-II qualified for Paramedic Program.
Lecture: 24 hours per semester and
Laboratory: 24 hours per semester
Instruction and practice in administering advanced life support to victims of sudden illness or serious injury.

027A Clinical Articulation: EMT-II to
Paramedic
2 Units
Prerequisite: EMS 026ABCD
Clinic: 160 hours per semester
Experience in the clinical setting for application and practice of upgraded knowledge and skills.

027B Field Articulation: EMT-II to
Paramedic
4 Units
Prerequisite: EMS 017A
Field: 320 hours per semester
Experience in the field setting for application and practice of upgraded knowledge and skills.

028A Cardiology for Paramedics 4 Units Prerequisite: None.
Lecture: 60 hours per semester and
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.

028B Pharmacology for Paramedics 3 Units Prerequisite: None.
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 developa background of general information about drugs and their actions and interactions; development of an understanding of hasic drug mathematics and posology.

028C Skills Development for the Paramedic 4 Units Prerequisite: Anat 101, AH 101, EMS 020C, 021A, 021B, 0258
Lecture: 54 hours per semester and Laboratory: 54 hours per semester

Information and practice to enhance the student's knowledge in regard to the ability to diagnose and treat signs of traumatic emergencies and/or medical emergencies and the ability to 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 for efficient and rational initial emergency management.

028D Clinical Externship for the Paramedic 3 Units
Prerequisite:EMS028C
Clinic: 240 hours per semester
Practice to enhance the student's knowledge in regard to administration of emergency medicine in a clinical setting; opportunity to assist and observe in emergency rooms under the direct supervision of staff members ot the treating facility, as well as in other clinical areas of the treating facility.

029 Field Externship for the Paramedic
Prerequisite: EMS 028D
Field: 480 hours per semester
Coordination of advanced paramedical training with a field mobile intensive care unit; opportunity to assist and observe 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.

## 030ABCD Paramedic

Recertification
3/4 Unit
Prerequisite: Must be a paramedic currently certified in the ICEMA region. Courses must be taken in sequence.
Lecture: 6 hours per semester and
Laboratory: 6 hours per semester and
Clinic: 16 hours per semester
Preparation for the practicing paramedic to take the written recertification exam and the skilltests.

## 031 Continuing Education for the Health

 Professional 1⁄1/4-2 Units Prerequisite: Current EMT-P or MICN Certificate.Lecture: 4-32 hours per semester
Current information on selected topics tor 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. Satisfies the partial requirement for recertification.

## 032 Cardiology Practicum <br> ½Unit

Prerequisite: None.
Corequisite: EMS 100A
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 tor a Coronary Care Certificate.

[^2]the continuing education of Mobile Intensive Care Nurses and/or Paramedics. Topics selected from the field of emergency medical care will include cardiology, medical trauma, pharmacology, basic paramedic sciences, pediatrics, obstetrics, medical, surgical, and psychiatric problems. Satisfies the partial requirement for recertification.

100A 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.

100B 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.

100C Mobile Intensive Care Nurse $1 \frac{1}{4}$ Unit Prerequisite: EMS 100B or R.N. with one year current emergency department nursing.
Lecture: 8 hours per semester and
Laboratory: 27 hours per semester and
Clinic: 6 hours per semester and
Field: 16 hours per semester
Information and practice on the radio communications system; introduction to pre-hospital care protocols and standing orders.

101ABCD MICN Recertification $3 / 4$ Unit Prerequisite: Must be a MICN currently certified in the ICEMA region. Courses must be taken in sequence.
Lecture: 8 hours per semester and
Laboratory: 8 hours per semester and
Clinic: 16 hours per semester
Information and practice to prepare the practicing MICN to take the written recertification exam and the skill tests.

102 Physical Assessment
Prerequisite: RN or VN
Lecture: 24 hours per semester and
Laboratory: 24 hours per semester
Introduction of the nurse to the extended skill of physical assessment. This course will give a student 3.2 units or 32 hours o! ContinuingEducation.

102A Neonatal Nursing
2 Units
Prerequisite: Must be a R.N., L.V.N., or Respiratory Therapist.
Lecture: 30 hours per semester plus
Laboratory: 4 hours per semester plus
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.

## 103 Basic IV Therapy Certification Course 2 Units

Prerequisite: Must be a R.N. or L.V.N. and possess a valid California nursing license.
Lecture: 30 hours per semester plus
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.

104 Wilderness Survival and Rescue
Techniques
3 Units
Prerequisite: None
Lecture: 21-48 hours per semester
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.

## 105 Emergency Mountain Medicine 3 Units

 Prerequisite: NoneLecture: 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.

[^3]237ABCD
2Units
238ABCD
3Units
239ABCD
4Units
Prerequisite: None
Lecture: 1-4 hours per week and/or
Laboratory: 3-12 hours per week
Clinic: 5-20 hours per week
Croup investigation of a special topic in the area of pre-hospital emergency medicine, with special attention to large-scale crisis intervention.

## ENGLISH

001 - 002 Vocabulary Improvement 3Units Prerequisite: 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.

## Reading Skills

011ABCD 1 Unit Prerequisite: Courses must be taken in sequence
Laboratory: 3 hours per week

## 012

2 Units
Laboratory: 6 hours per week

## 013

3 Units
Laboratory: 9 hours per week

014ABCD
3 Units
Lecture: $1 \frac{1}{2}-3$ hours per week and/or Laboratory: $11 / 2-3$ hours per week
Prerequisite: 012 and 013 - None; 011ABCD and 014 ABCD - Courses must be taken in sequence.

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 any combination of English 011, 011, 013, 014, and Psychology 024, $025,026,207$.

015 Basic Writing
3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of grammar and usage in the English language; emphasis on clarity, correctness, and appropriate style.

100 Freshman Composition UC
Prerequisite: Pass Placement Test.
Lecture: 3 hours per week
Training in effective written composition. utilizing both instruction in writing and regular composition assignments.

144 Business English
3 Units
Prerequisite: Pass Placement Test for English 100.

Lecture: 3 hours per week
Review of basic grammar, punctuation, capitalization, and spelling, with emphasis on grammar and vocabulary development for effective business communication.

## 152 Freshman Composition and

Literature
3 Units
UC
Prerequisite:English 100
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 100
Lecture: 3 hours per week
Overview of contemporary literature by and about women, with emphasis on autobiographicalworks.

## 170 The Film Experience

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

## 234•235 Creative Writing 3Units UC

Prerequisite: Eligibility for English 100. 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 011 special interests.

250•251 Fiction
3 Units

## UC

Prerequisite: English 100. 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 occasional short written analyses. Emphasis will usually be on a particular type of fiction; see the current schedule of classes for the specific emphasis.

## 262•263 American Literature <br> 3 Units

 UCPrerequisite: English 100. 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.

272•273
Survey of English Literature 3 Units UC
Prerequisite: English 100. 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.
276 Shakespeare 3 Units
UC
Prerequisite: English 100
Lecture: 3 hours per week
Study of the plays and poetry of Shakespeare,
with additional study of Shakespeare's life and
times.

## FIRE TECHNOLOGY

075 Fire Technology Training Academy
9 Units
Prerequisite: EMS 021B, and Firet 100, and Firet 101, or equivalent.
Lecture: 130 hours per semester and
Laboratory: 150 hours per semester
Introduction to basic firefighting theory and
skills; study of the characteristics and behavior of fire; practice in fundamental fire suppression activities, with special attention on safety, first aid, and rescue procedures.

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 for teaching technical fire service skills; technical lesson plans, supplementary instruction sheets, test planning sheets, and written and oral examinations; fundamentals of evaluation, lesson plan formats and the principles of effective instruction.

## 082 Fire Prevention 1A

2-3 Units
Prerequisite: None
Lecture: 2-3 hours per week
One of the two basic fire prevention courses covering the professional approach and specialized knowledge needed to perform the functions of fire prevention. The course related to code use, improvement, enforcement and fire cause. It also covers flammable liquids gases, and solids, combustible dust and metals, explosive materials, properties of plastics, portable and fixed fire protection equipment. Successful completion of Firet 082 and 083 fulfills the fire prevention requirements for State Officer certification.

## 083 Fire Prevention 1B

2-3 Units
Prerequisite: None
Lecture: 2-3 hours per week
The second of two basic fire prevention courses covering the specialized knowledge needed to perform the functions of fire prevention. The course involves 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 fireground and fire department management; issues in management; external influences; decision making; stress; characteristics and source of goals; management by objectives; task analysis; motivation inventories; demotivators; productivity; management control; setting policy; organizational structures; delegation; principles of leadership; counseling; Equal Employment Opportunity guidelines; communication; handling disputes and grievances.

085 Fire Command 1A
2-3 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, fireground performance standards, command and control components.

## 086 Fire Command 1B

2-3 Units Prerequisite: None
Lecture: 1-3 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: 1-3 hours per week
Study of the principles of fire behavior; building construction; point of fire origin determination; motives of the firesetter; acci-
dental 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 firesetters; wildland fire investigation.

090ABCD Selected Studies in Fire Technology 1-4 Units

## 095ABCD

Prerequisite: Previous course work or experience in areas of fire protection.
Lecture: 16 hours per unit per semester.
Special studies related to fire technology. Each semester the specific subject matter of the course will be announced in the schedule of classes.

## 100 Introduction to Fire Technology

3 Units

## Prerequisite; None

Lecture: 3 hour 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 <br> 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 101Lecture: 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' requirement for pumps.

## 107 Rescue Practices <br> 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 <br> 3 Units <br> Prerequisite: Chem 100 or equivalent <br> Lecture: 3 hours per week <br> Review of basic chemistry, storage, handling, laws, standards and fire fighting practices pertaining 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.

109 Rescue Skills and Techniques 1 Unit Prerequisite: Completion of Firet 100 or appropriate work experience.
Lecture: 17 hours per semester and
Laboratory: 3 hours per week
Study and practice of basic rescue problems, general theory, philosophy and improvisation problems.

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; meth-
ods 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 Wildland Fire Control

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

## 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 <br> 3 Units

Prerequisite: None. 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: None. 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: None. 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: None
Lecture: 3 hours per week
Introduction to the role of the Planning Section Chief within the Incident Command System (ICs); study of the collection, evaulation, and dissemination of ICs information.

160 Incident Commander
3 Units
Prerequisite: None
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: None
Lecture: 3 hours per week
Study of the management tactics and strategies of all operations directly applicable to the primary mission.
162 Logistics Section Chief
3 Units
Prerequisite: None
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: None
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 <br> 3 Units

Prerequisite: None
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.

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

 Management3 Units
Prerequisite: Completion of Firet 100 and Firet 100 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 <br> Prerequisite: None <br> 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 Prerequisite: None <br> 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 furl quality management and an overview of the transportation of hazardous materials.

236ABCD Special Topics in Fire Technology

1 Unit

238ABCD
3Units
239ABCD
4 Units
Prerequisite: None.
Lecture: 1-4 hours per week and/or
Laboratory: 3-12 hours per week and/or
Clinic. 5-20 hours per week
Special topics related to fire technology. Each semester the specific subject matter of the course will be announced in the schedule of classes.

246ABCD Selected Studies in Fire
Technology 1 Unit
247ABCD 2Units
248ABCD
3Units

249ABCD
4Units
Prerequisite: None.
Laboratory: 16 hours per unit per semester.
Independent study for selected students in any area of fire technology, with projects determined jointly by student and instructor.

## FRENCH

150 Spoken French I $2 ½$ Units UC*
Prerequisite: None.
Lecture: $2^{1 / 2}$ hours per week and
Laboratory: $1 / 2$ hour per week
Comprehension, conversation, reading, and composition. including drill in essential grammar at the elementary level.

151 Spoken French I (Continued) $2^{1 ⁄ 2} 2$ Units UC*
Prerequisite:French 150
Lecture: $2 \frac{1}{2}$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of French 150. (French 150-151 is equivalent to French 155.)

## 155 College French 1

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

160 Spoken French II $2^{1 ⁄ 2} 2$ Units UC*
Prerequisite: French 151 or French 155, or one year of high school French.
Lecture: $2^{11 / 2}$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of French 151.

161 Spoken French II (Continued) $21 / 2$ Units UC*
Prerequisite: French 160
Lecture: $2^{1 / 2}$ hours per week
Laboratory: $1 / 2$ hour per week
Continuation of French 160. (French 160-161
is equivalent to French 165.)

## 165 College French II <br> 5 Units <br> UC

Prerequisite: French 155 or French 150 and 151, or one year of high school French.
Lecture: 5 hours per week and
Laboratory: 1 hour per week
Continuation of French 155.

## 166 Selected Studies in French 1-3 Units UC*

Prerequisite:French 165 or French 160and 161. or two years of high school French, or equivalent proficiency.
Lecture: 1-3 hours per week and
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.

## 175 College French III <br> UC

Prerequisite:French 165 orFrench 160 and 161, or two years of high school French.
Lecture: 4 hours per week and
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.

## 185 College French IV <br> UC

4 Units
Prerequisite: French 175 or three years of high school French.
Lecture: 4 hours per week and
Laboratory: 1 hour per week
Continuation of French 175.

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

## 103 Cultural Geography

3 Units
UC
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.

111 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 11/4-1 Unit UC
Prerequisite: None.
Lecture: $1 / 4-1$ hours per week and/or
Laboratory: $3 / 4-3$ 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

050 A Survey of Earth Science
3 Units Prerequisite: None.
Lecture: 3 hours per week and field trips
Overview of the physical and historical aspects of geology and related earth science fields, including field trips of general interest.

052 Common Rocks and Minerals
2 Units Prerequisite: None.
Lecture: 1 hour per week and
Laboratory: 2 hours per week and field trips
Introduction to the common minerals and rocks found in the earth's crust, with emphasis on California localities, including simple methods of identification and description and the economic importance of these minerals. Selected field trips to local rock and mineral sites.

## 100 Physical Geology

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

246ABCD Special Problems in
Geology
1 Unit
UC*
Prerequisite: Completion of or concurrent enrollment in a Geology course.
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

## UC

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.

## GERMAN

150 Spoken German 1
2½ Units
UC
Prerequisite: None.
Lecture: $2^{11 / 2}$ hours per week and
Laboratory: $1 / 2$ hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

151 Spoken German 1 (continued) 2!,2 Units UC
Prerequisite:German 150
Lecture: $11 / 2$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of German 150.

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

## 165 College German II <br> 5 Units

UC
Prerequisite: German 155, or German 150 and 151, or one year of high school German.
Lecture: 5 hours per week and
Laboratory: 1 hour perweek
Continuation of German 155.

166 Selected Studies in German 1-3 Units UC
Prerequisite: German 165 or two years of high school German, or equivalent proficiency.
Lecture. 1-3 hours per week and
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.

## 175 College German III

4 Units UC
Prerequisite: German 165 or two years of high schoolGerman.
Lecture: 4 hours per week and
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.

185 College German IV 4 Units UC
Prerequisite: German 175 or three years of high school German.
Lecture: 4 hours per week and
Laboratory: 1 hour per week
Continuation of German 175.

## 242 German Culture and Civilization

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

## HEALTH EDUCATION

101
Health Education
2 Units
UC
Prerequisite: None.
Lecture: 2 hours per week
Introduction to health as an important component of the quality of human life, emphasizing participation in a positive health program as an individual and as a member of the community.

102 Biologic Principles of Health 3 Units Prerequisite: None
Lecture: 3 hours per week
Principles of personal, physical and emotional health in a complex community, designed for physical education, recreation and health educationmajors.

## HISTORY

100•101 History of the United
States
3 Units
UC
Prerequisite: None. Courses need not he 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.

120 Problems and Issues in American
Reform
3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Intensive study of historical, political, and philosophical ideas and issues of American reform in the twentieth century.

## 135 Religion in America <br> UC

Prerequisite: None.
Lecture: 3 hours per week
Study of the principal figures, issues, and trends in religious liberty in America; religion and social protest; the Black religious experience; Catholic, Protestant, Jewish, and contemporary religious phenomena. (Also listed as ReligiousStudies 135.)

## 137 History of American Minorities

3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the history of American minorities from the Colonial Period to the present, with emphasis on the California minorities: Mexi-can-American, Black, and Oriental.

## 142 Mexican-American Studies <br> 3 Units

UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of the culture and achievements in politics, agriculture, and the arts of the Mexi-can-American in the Southwest.

145 History of California
3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Survey of California history from Colonial times to the present, emphasizing its diverse social. political, economic, and cultural development.

153 History of Mexico
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.

## 163 History of England <br> 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 Common wealth of Nations

166•167 Cultural and Humanistic History of Civilization 3 Units
UC
Prerequisite: None. Courses need not be taken in sequence.
Lecture: 3 hours per week
Study of how the artistic, rational, and spiritual dimensions of man determine philosophical, religious, scientific, and aesthetic attitudes, and how those attitudes contribute to the creative achievements of man. Both Eastern and Western cultures are studied from antiquity to modern time.

166 deals with the culture, problems, and achievements of the Classical and Judeo-Christian worlds, from about 750 BC to 1450 AD .

167 deals with the culture, problems, and achievements of the medieval, renaissance, and modern worlds, from about 1450 to the present.

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 

100ABCD Individual and Group
Studies 1⁄2-3 Units
Prerequisite: None.
Lecture: 8-48 hours per semester and/or
Laboratory: 24-144 hours persemester
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 and
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: $1 / 2-1$ hour per week and
Laboratory: $1 \frac{1}{2}-3$ 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 communicating 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 Modern Medicine 1-3 Units 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. Alternative ethical theories will be explained and applied to the various issues.

132 Literature and Culture of the
Bible
3 Units
UC
Prerequisite. None.
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.

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.

## 160 The Creative Process in the Visual Arts

3 Units
Prerequisite: Art 100 or Art 115 or Art 156 or Art 166 or Photo 150
Lecture: I hours per week plus
Laboratory: 5 hours per week
Practical application of the creative process in art and photography. Various artists' work are studied in drawing, painting, sculpture, and photography: using the knowledge gained from these studies, students will produce personal artwork in a wide range of media.

## MARKETING

## 098ABCD Marketing Work Experience

4 Units
Prerequisite: Concurrent enrollment in at least 7 units, including this course. Courses must be taken in sequence.
Lecture: 1 hour per week and Work Experience: 15 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 Marketing
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.

## 115 Retailing Principles

3 Units
Prerequisite: None.
Lecture: 3 hours per week
Principles and methods of modern retailing; covers such topics as the research of customer demands, store location and layout, how to buy and price merchandise, inventory control, promotion, and management of sales people.

## 212 Sales Management

3 Units
Prerequisite: None.
Lecture: 3 hours per week
Study of the important aspects and activities of the sales manager; includes analysis of the sales force, recruitment, training, compensation, motivation, and control.

## MATHEMATICS

## 001 Review Arithmetic

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

Review of the fundamental operations involving whole numbers, fractions, decimals, and percents, with a simple introduction to the set of integers and basic algebra.

051 Review Arithmetic and Introduction to Algebra 3 Units Prerequisite: None.
Lecture: 3 hours per week
Review of arithmetic, including fractions, decimals, percentages, ratios, signed numbers. radicals, and exponents. Introduction to simple algebra. Calculation of areas and volumes and other normal dimensions needed by members of our society.

090 Elementary Algebra
4 Units
Prerequisite: None.
Lecture: 4 hours per week
Study of basic topics in algebra, including operations with signed numbers and algebraic expressions; first and second degree equations; special products and factoring; algebraic fractions; ratio and proportions; systems of equations; introduction to radicals and exponents.

## 095 Plane Geometry

4 Units Prerequisite: Elementary Algebra
Lecture: 4 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.

104 Intermediate Algebra 4 Units Prerequisite: Math 090
Lecture: 4 hours per week
Further study of topics in algebra, including properties of real numbers; multiplication, division, and factorization of polynomials; fractions, 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.

105 Plane Trigonometry 4 Units Prerequisite: Math 104
Lecture: 4 hours per week
Study of trigonometric functions, identities and equations, solutions of triangles, inverse trigonometric functions, vectors, and complex numbers.

108 Introduction to Probability and Statistics 4 Units
UC UC
Prerequisite: Math 104 recommended.
Lecture: 4 hours per week
Introduction to probability, descriptive and
inferential statistics, with application to the natural sciences, business, economics, and behavioral sciences.

## 128 Mathematics and Modern Culture

3 Units
Prerequisite: None
Lecture: 3 hours per week
Historical background of mathematics, inductive and deductive reasoning, mathematical patterns found in nature, society and the fine arts, basic concepts of counting, probability and statistics.

## 138 Modern Elementary Mathematics 1

4 Units
UC
Prerequisite: One year each of high school algebra and geometry or Math 090 .
Lecture: 4 hours per week
Introduction to logic, elementary set theory, finite systems, elementary number theory, structure and properties of the systems of natural numbers, whole numbers, integers, rational numbers and real numbers.

## 140 Finite Mathematics

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 Prerequisite: Math 104 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 153, 154.

150 College Algebra and Introduction to Calculus

4 Units Prerequisite: Intermediate algebra. Plane trigonometry recommended.

## Lecture: 4 hours per week

Study of inequalities; absolute value; functions and functional notation; quadratic equations (in two variables); methods of graphic representation of conic sections and rational functions; theory of equations; general forms of conic sections; induction, including the binomial theorem. An introduction to analytic geometry proofs and to the calculus concepts of limit, continuity, and derivative.

## 153 Analytic Geometry and Calculus

4 Units
UC
Prerequisite: Math 105 or high school trigonometry.
Lecture: 4 hours per week
Study of analytic geometry of the straight line and the circle, functions, limits, derivatives of algebraic functions, applications of derivatives including maxima and minima, graphing, rate of change, and antiderivatives.

## 154 Analytic Geometry and Calculus

4 Units
UC
Prerequisite: Math 153
Lecture: 4 hours per week
Study of limits, definite integral and applications, fundamental theorem of integral calculus, derivatives and integrals of trigonometric functions, inverse trigonometric functions, exponents, logarithms, and hyperbolic functions; methods of integration.

## 204 Quantitative Analysis <br> 3 Units UC

Prerequisite: 2 years of high school algebra.
Lecture: 3 hours per week
Study of contemporary quantitative methods for students in economics and business, emphasizing the application of these tools to the problems of economic theory and modern business. Includes fundamentals of algebra, matrix algebra, linear programming, functions, differential and integral calculus fundamentals.

## 253 Analytic Geometry and Calculus

4 Units UC
Prerequisite: Math 154
Lecture: 4 hours per week
Study of parametric equations, polar coordinates, interdeterminate forms, infinite series and Taylor's formula, approximations, solid analytic geometry. Functions of several variables, partial differentiation.

## 254 Analytic Geometry and Calculus

4 Units
UC
Prerequisite: Math 253
Lecture: 4 hours per week
Study of multiple integration, line and surface integrals, with an introduction to differential equations.

## MICROBIOLOGY

102 Introductory Microbiology UC*
Prerequisite: None.
Lecture: 3 hours per week and
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 and
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
UC*

247AB
2Units

3Units
248AB
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.

Prerequisite: None.
Lecture: 5 hours per week and
Laboratory: 1 hour per week
Beginning work in sightsinging, dictation, rhythms, scales, signatures, elementary harmony from the common practice period.

## 102 Music Theory II <br> 5 Units

UC
Prerequisite:Music 101
Lecture: 5 hours per week and
Laboratory: 1 hour per week
Continuation of the development of musical skills, including sightsinging, dictation, and intermediate harmony through secondary dominants.

## 115 Music Copying

2 Units
Prerequisite: Ability to read music.
Lecture: 2 hours per week
Study of the preparation of written music for performance, including instruction in the areas of copying equipment, copying techniques, professional requirements, and special problems in copying.
116 Jazz Theory and Musicianship:
Improvisation
UC
Prerequisite: Ability to read music.
Lecture: 3 hours per week
Study of the elements of contemporary jazz
theory, emphasizing techniques of jazz
improvisation.

117 Jazz Theory and Musicianship: Arranging

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 arranging.

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.

124 Survey of Musical Literature Through
Beethoven
UC
Prerequisite: Ability to read music.
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Study of selected musical literature from medieval music through Beethoven, with emphasis on formal developments and stylistic characteristics of each work. Designed tor the music major, but open to all.

125 Survey of Musical Literature: Romantic and Contemporary UC
Prerequisite: Ability to read music.
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Study of selected musical literature of the romantic and contemporary periods, with emphasis on formal developments and stylistic Characteristics of each work. Designed for the music major, but open to all.

## 128 Class Organ I

2 Units
Prerequisite: None.
Lecture: 1 hour per week and
Studio: 2 hours per week
Introduction to the organ as a unique musical instrument; two-part manual playing; beginning pedal studies; introduction to simple hymn playing, phrasing and articulation.

## 129 Class Organ II UC*

Prerequisite:Music 128
Lecture: 1 hour per week and
Studio: 2 hours per week
Continuation of Music 125, including instruction in manual and pedal work, three voice compositions. and registration techniques.

130•131 Elementary Voice UC*
Prerequisite: Ability to match pitches. Courses need not be taken in sequence.
Lecture: 1 hour per week and
Studio: 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 Elementary Guitar
2 Units
UC*
Prerequisite: Student must have his/her own guitar.
Lecture: 1 hour per week and
Studio: 2 hours per week
Introduction to the basic techniques of playing the guitar.

133 Intermediate Guitar 2 Units UC*
Prerequisite: Music 132
Lecture: 1 hour per week and
Studio: 2 hours per week
Instruction in chords and arpeggios in all keys, improvisation, accompaniment, sightreading, transposition, folk, classical, and jazz styles.

143ABCD Woodwind, Brass and Percussion Instruction

2 Units
UC*
Prerequisite: Ability to match pitches and perform basic manual skills. Courses must he taken in sequence.
Lecture: 1 hour per week and
Studio: 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 a second instrument are encouraged to take advantage of this opportunity.

## 145 Elementary Piano I <br> 2 Units <br> UC*

Prerequisite: None. Music 100 recommended.
Lecture: 1 hour per week and
Studio: 2 hours per week
Class instruction in beginning piano, including elementary scale techniques, sight-reading, and ensemble playing.

146 Elementary Piano II 2 Units
UC*
Prerequisite: Music 145
Lecture: 1 hour per week and
Studio: 2 hours per week
Continuation of Music 145. Class instruction in basic piano techniques, including scales, sight-reading, basic literature, and ensemble playing.

156 ABCD Concert Choir
UC*
Prerequisite: Ability to match pitches. Courses
must be taken in sequence.
Studio: 2-4 hours per week

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

168ABCD Wind Instrument Ensemble
1 Unit
UC*
Prerequisite: Ability to match pitches and perform basic manual skills. Courses must be taken in sequence.
Studio: 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.
Studio: 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 UC*

2 Units
Prerequisite: Intermediate or higher performance level on a traditional "big hand" instrument. Courses must be taken in sequence. Studio: 4 hours per week

Study of the techniques and repertoire of the current jazz and stage band.

## 174ABCD Jazz Ensemble UC*

Prerequisite: Advanced performance level on a traditional "big band" instrument. Courses must be taken in sequence.
Studio: 4 hours per week
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.
Studio: 2 hours per week per unit
Preparation and public performance of musical lays, operettas, operas, and/or oratorios for both vocalists and instrumentalists.

201 Music Theory III
3 Units UC
Prerequisite:Music 102
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Continuation of the development of musical skills, including sightsinging, dictation, intermediate harmony through nondominant seventh chords.

## 202 Music Theory IV

3 Units
UC
Prerequisite: Music 201
Lecture: 3 hours per week and
Laboratory: 1 hour per week
Advanced study in sightsinging, dictation, advanced harmony to include common practice harmony through augmented sixths, extensions into scalar and chordal harmonies, entended chromaticism, elementary twelve tone relationships.

## 228 Class Organ III <br> UC*

Prerequisite: Music 129
Lecture: 1 hour per week and
Studio: 2 hours per week
Continuation of Music 129, including instruction in manual and pedal work, trio exercises, registration techniques, and hymns.

## 229 Class Organ IV <br> 2 Units <br> UC* <br> Prerequisite: Music 228 <br> Lecture: 1 hour per week and <br> Studio: 2 hours per week <br> Continuation of Music 238, including instruction in advanced manual and pedal work and the playing of a variety of organ literature and hymns with emphasis on style, interpretation, and registration.

232 Advanced Guitar I
2 Units
UC*
Prerequisite: Music 133
Lecture: 1 hour per week and
Laboratory: 2 hours per week
Instruction in advanced chords of the jazz and pop styles and in major and minor scales; introduction to the literature and style of classical guitar.

[^4]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.

## 245 Intermediate Piano I

2 Units
UC*
Prerequisite:Music 146
Lecture: 1 hour per week and
Studio: 2 hours per week
Class instruction at the intermediate level, including keyboard techniques, ensemble playing, and musicianship skills.

216 Intermediate Piano II

## UC

Prerequisite:Music 745
Lecture: 1 hour per week and
Studio: 2 hours per week
Continued class instruction at the intermediate level, including keyboard techniques, ensemble playing, and musicianship skills.

## 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 UC
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 Shorthand and Typewriting
Lab
1-3 Units Prerequisite: None. Courses must be taken in sequence.
Laboratory: 3-9 hours per week
Individualized instruction designed for the student who has some skill in typing or shorthand and would like to increase in speed and efficiency; assistance with equipment and materials.

053ABC Office Experience 3 Units Prerequisite: None. Courses must be taken in sequence.
Lecture: 1 hour per week and
Laboratory: 6 hours per week
On-the-job training through stenographic, clerical, and receptionist work on campus.

090ABCD Selected Topics in Office
Administration $1 / 2-3$ Units Prerequisite: None. Courses must be taken in sequence
Lecture: $1 / 2$ to 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.

## 098ABCD Work Experience in Office Administration

4 Units
Prerequisite: Concurrent enrollment in at least 7 units, including this course. Courses must he taken in sequence.
Lecture: 1 hour per week and
Work Experience: 15 hours per week
Integration of classroom instruction with practical on-the-job experience coordinated with the program of study and related to appro priate occupational goals.

100 Beginning Typewriting 1-3 Units Prerequisite: None
Lecture: 1-7 hours per week and/or
Laboratory: 1-3 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.

103 Intermediate Typewriting 1-3 Units Prerequisite: OA 100 and/or ability to type at least 30 net words a minute.
Lecture: 1-2 hours per week and/or
Laboratory: 2-3 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 volume of other diversified business forms. Designed to develop a minimum typing speed of 40 words a minute.

106 Advanced Typewriting 1-3 Units Prerequisite: OA 103 and/or ability to type at least 40 net words a minute.
Lecture: 1-2 hours per week and/or
Laboratory: 2-3 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 SO words per minute.

110 Beginning Word Processing 2-4 Units Prerequisite: OA 103 or ability to type at least 40 net words a minute for 5 minutes. Lecture: $11 / 2-3$ hours per week and Laboratory: $1 \frac{1}{2}-3$ 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 Processing 2-4 Units Prerequisite:OA 110
Lecture: $11 / 2-3$ hoursper week
Laboratory: $1 \frac{1}{2}-3$ hours per week
Development of marketable skills in word processing; study and practice of advanced techniques and skills in word processing machine operations, machine transcription techniques for word processing, language arts, and word processing concepts; filing, logging, editing, layout and format designing, and organizing.

## 112 Advanced Word Processing <br> 2-3 Units

Prerequisite:OA 111
Lecture: 1-2 hours per week
Laboratory: 2-3 hours per week
Development of advanced marketable skills in word processing concepts including work experience and internship to provide knowl-
edge and training under actual job conditions. Training in supervising, organizing, producing mailable copy, archive storage and floppy disk filing, performing mathematical computations, and gaining proficiency in select/sort procedures and forms design.

116 Keyboarding 1 Unit
Prerequisite: None
Lecture: 8 hours per semester
Laboratory: 24 hours per semester
Fundamentals of basic keyboarding; inputing of alphabetic, numeric, and symbol information on a keyboard quickly and accurately; understanding the basic vocabulary and concepts used in keyboarding operations for inputting and retrieving information.

## 118 Elementary Shorthand (Gregg)

1-6 Units
Prerequisite: None.
Lecture: 1-5 hours per week and
Laboratory 2 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.

## 119 Intermediate Shorthand (Gregg)

1-6 Units
Prerequisite: OA 118 with a grade of "C" or better.
Lecture: 1-5 hours per week and Laboratory: 2 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.

[^5]135ABC Advanced Shorthand and Typewriting Laboratory 1-2 Units Prerequisite: OA 103 and 119 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.

137 Bookkeeping and Medical
Insurance
3 Units
Prerequisite: None.
Lecture: 3 hours per week
Fundamentals of bookkeeping; study of health insurance programs with emphasis upon benefits, patient cost-sharing coverages, terminology, and processing insurance claims.

## 138 Office Administration Procedures

1-6 Units
Prerequisite: OA 132 with a grade of "C" or better.
Lecture: 1-5 hours per week and
Laboratory: 2 hours per week
Instruction to give in-depth training for the career-minded student; exploration of secretarial techniques, the personal characteristics, and the knowledge required for advancement toward a professional goal.

## 140 Records Management

1-3 Units Prerequisite: None.
Lecture: 1-3 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.

## 141 Office Training

2-6 Units
Prerequisite: Ability to type at least 40 words a minute for five minutes.
Lecture: 1-5 hours per week and
Laboratory 2 hours per week
Knowledge and experience in office procedures and secretarial skills necessary for success in modern office; emphasis on instruction and experience in the use of the dictaphone, electric typewriter, ditto and mimeograph machines, and word processing machines.

145 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.

155 Legal Office Procedures 1-3 Units
Prerequisite:OA 100
Lecture: 1-3 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.

## 156 Legal Terminology and Transcription

1-3 Units
Prerequisite: OA 100 and OA 118
Lecture: 1-2 $1 / 2$ hours per week
Laboratory: $1 / 2$-I hour per week
Intensive training in legal terminology, legal dictation and transcription, and the specialized duties of the secretary employed in a legal office.

165 Medical Office Procedures 1-3 Units Prerequisite:OA 100.<br>Lecture: 1-3 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.

167 Medical Dictation and Transcription

1-3 Units
Prerequisite: OA 100 and OA 118.
Lecture: $1-2^{1 / 2}$ hours per week and Laboratory: $1 / 2-1$ hour per week
Intensive training in medical vocabulary, medical dictation and transcription, and the specialized duties of the secretary employed in a medical office.

168 Medical Terminology and
Transcription I
1-6 Units
Prerequisite:OA 100.
Lecture: 1-6 hours per week and
Laboratory: 1 hour per week
Instruction in medical terminology as it relates to transcription of medical records in all phases, including history and physical exami-
nation 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.

169 Medical Terminology and Transcription II

1-6 Units
Prerequisite:OA 168.
Lecture: 1-6 hours per week and Laboratory: 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 particularemphasis on laboratory data, surgery terminology, and pharmaceuticals; documentation of new terminology; simulation of "on-the-job" training.

## PHILOSOPHY

062 In Search of Meaning in the Modern World

3 Units Prerequisite: None.
Lecture: 3 hours per week
Exploration of the predicament and potential of human life in the modern world.

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
C
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.
$115 \cdot 116 \cdot 117$ 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 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.

## PHOTOGRAPHY

150 B \& W Photography<br>4 Units UC*<br>Prerequisite: None.<br>Lecture: 2 hours per week and<br>Laboratory: 5 hours per week<br>Introduction to black and white photography, including familiarization with the camera, shooting techniques, negative and print darkroom procedures, finishing and presentation, and contemporary applications.

## 151 Intermediate B\&W

Photography
4 Units
Prerequisite: Photography 150
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Intermediate level study of black and white photography, including a continuation of negative and print darkroom work, individualization of shooting technique, experimentation, basic sensitometric practice, and portfolio preparation.

152 Advanced B \& W Photography 4 Units
Prerequisite: Photography 150
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Advanced level study of black and white
photography, including a continuation of negative and print darkroom work, individualization of shooting technique, experimentation, sensitometric practice, and portfolio preparation.

154 History of Photography
3 Units UC*
Prerequisite: None. Lecture: 3 hours per week

Survey of the history of photography, tracing its development from early nineteenth century discoveries through its evolution to the present and stressing both technical innovations and aesthetic development in the field.

## 230 Photography for the Natural

Sciences
2 Units
Prerequisite: Previous or concurrent enrollment in a college Natural Science course.
Lecture: 1 hour per week and
Laboratory: 2 hours per week
Introduction to scientific photography, meant to prepare students to use photography in their own fields of science, not to prepare professional scientific photographers. No previous photography experience is required. Topics will include macrophotography, photomicrography, astrophotography, telephotography, fluorescence and UV photography, infrared photography, and basic darkroom techniques.

## 246 Special Projects in Photography 1 Unit

247 2 Units
248
249
Prerequisite: Completion of/or concurrent enrollment in a photography course.
Laboratory: 3 hours per week per unit
Independent projects for selected students with a special interest in photography. Projects to be determined jointly by the student and the instructor prior to registration.

## 250 Color Photography

4 Units
Prerequisite: Photography 152
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Evaluation of various types of transparency and color negative print materials. Shooting, processing, printing, and quality control. Emphasis on both technical processes and aesthetic principles.

252 Advanced Color Photography 4 Units Prerequisite: Photography 250
Lecture: 2 hours per week and
Laboratory: 5 hours per week
Additive and subtractive printing processes, filtration, and negative analyzing. Advanced shooting and experimental processes will be stressed, with portfolio preparation an end measurement.

## 253 Life Photography

4 Units
Prerequisite: Photo 151
Lecture: 2 hours per week plus
Laboratory: 5 hours per week
Introduction to photography of the human figure, with emphasis on anatomical knowledge and on lighting. The topography of the human body is studied and some historical printing processes employed.

## 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.

## AEROBIC EXERCISE TO MUSIC

## UC* <br> Courses must be taken in sequence. Laboratory: $1 \frac{1}{2}-3$ hours per week

105A Introductory Aerobic Exercise
1/2-1 Unit
105B Beginning Aerobic Exercise $1 / 2-1$ Unit
105C Intermediate Aerobic Exercise
1⁄2-1 Unit
105D Advanced Aerobic Exercise $1 / 2$-1 Unit

## BODY BUILDING

UC*
Courses must he taken in sequence
Laboratory: $11 / 2-3$ hours per week


## TEAM ACTIVITIES

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

130ABCD Team Sports<br>(Co-Ed)<br>(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. Coedclass.

## PHYSICS

101 Introduction To Physics 4 Units
UC*
Prerequisite: None.
Lecture: 3 hours per week
Laboratory: 3 hours per week
Introduction to the ideas, concepts, and theo-
ries of physics; a nonmathematical course.
103 Physics
4 Units
Prerequisite: High school algebra and Physics 101
Lecture: 3 hours per week and
Laboratory: 3 hours per week
Introduction to optics, electricity, atomic and nuclear physics.
$110 \cdot 111$ General Physics 4Units
UC* UC*
Prerequisite; High school Physics or Physics 101 and intermediate algebra and trigonometry. Courses must be taken in sequence.
Lecture: 3 hours per week and
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 101. Courses must be taken in sequence.

Corequisite: For 200, Math 153; for 201, Math

## 154

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.

203 European Political Systems 3 Units UC
Prerequisite: Political Science 100
Lecture: 3 hours per week
Comparative survey of constitutions, political organizations, and related social and economic institutions and processes in four European countries: Great Britain, the Soviet Union, Germany, and France. Examines contrasting features between democratic and authoritarian systems. Recommended for government, social science, and pre-teaching majors.

206 Introduction To World Politics 3 Units UC
Prerequisite: None.
Lecture: 3 hours per week
Study of the basic principles and major elements of world politics, with a survey of their application in practice, emphasizing the concept of the modern sovereign state system and considering the problems of nationalism, polarity of power, development and competing economic systems, conflict, war, population pressures, and a world held in check by the threat of nuclear weaponry.

212 Introduction to Political Science
UC
Prerequisite:Political Science 100
Lecture: 3 hours per week
Survey of the scope, methods, and interests of contemporary political science, with special emphasis on problems of political analysis. Required of political science majors who intend to transfer to a branch of the University of California or the State University and Colleges system.

215 Selected Topics in American Politics

1-3 Units UC
Prerequisite: None.
Lecture: 1-3 hours per week
Examination of important selected events and issues in contemporary American political life, such as the primaries and the conventions, the election of the President, etc. Specific topics will be announced in the class schedule when this course is taught.

## 225 Politics In Ecology <br> UC

Prerequisite: None.
Lecture: 3 hours per week
Examination of the major ecological issues confronting the United States in the world today, in order to understand the relationship of government and politices to the crisis in human/environmental relations. Particular emphasis will be placed on population and technology as basic variables in the ecological crisis, and consideration will be given to the constraints placed on environmental action by a system of government with multiple centers of decision making.

## PSYCHOLOGY

Personal Developmental Skills

## 023ABCD

$1 / 4$ Unit
Prerequisite: Courses must be taken in sequence.
Laboratory: 12 hours per semester (4 weeks only)

024ABCD
$1 / 2$ Unit
Prerequisite: Courses must be taken in sequence.
Lecture: 4 hours per semester plus

Laboratory. 12 hours per semester or
3 Units Laboratory: 24 hours per semester (8 weeks only)

025ABCD 1 Unit
Prerequisite: Courses must be taken in sequence.
Lecture: 16-48 hours per semester.
Laboratory: 48 hours per semester
026ABCD 2Units
Prerequisite: Courses must be taken in sequence.
Laboratory: 96 hours per semester

## 027ABCD <br> 3 Units

Prerequisite: Course must be taken in sequence. Laboratory: 144 hours per semester

Participation in individually planned programs designed to help students to master basic learning skills to the level necessary for successful achievement in college classes. Also designed for use by tutors to prepare them to be effective in peer tutoring. (A maximum of six units of any combination of Psychology 024, 025, 026, and 027 may be applied toward the Associate Degree. A student may receive a maximum of twelve units of credit for any combination of English 011, 012, 013, 014, and Psychology 024, 025, 026, 027.)

050 Orientation $1 / 4$ Unit Prerequisite: None.
Lecture: 4 hours per semester plus two hours arranged.

Short-term course, usually offered during the first four to six weeks of the semester. Orientation to the philosophy, regulations, and services of Crafton Hills College, in order to assist students in understanding the scope and function of community college education so that they may properly assume the responsibility for their educational and vocational planning. Required of day students entering college for the first time.

055 Orientation and Career/Life Planning
$1 / 2$ Unit
Prerequisite: None.
Lecture: 8 hours per semester
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. Short-term course,
usually offered during the first eight weeks of the semester. Required of students entering college for the first time.

058ABCD Career Development $1 / 4-1 / 2$ 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.

## 090ABCD Selected Topics in Applied Psychology <br> 1-3 Units

Prerequisite: None.
Lecture: 1-3 hoursperweek
Examination of selected topics of special interest to students in the field of applied psychology.Specifictopics will beannounced in the class schedule when this course is taught.

103 Psychology of Personality UC
Prerequisite:Psychology 107.
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.

107 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

## 108 General Psychology

3 Units
UC
Prerequisite:Psychology 107.
Lecture: 2 hours per week and
Laboratory: 2 hours per week
Advanced study of the principles of general psychology, emphasizing the experimental method and the psychological bases of behavior.

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

110 Abnormal Psychology
3 Units
Prerequisite: Psychology 107.
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 107.
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 Women UC
> Prerequisite: None.
> Lecture: 3 hours per week
> Study of both traditional theories regarding the feminine psyche and modern research results in the field of sex differences.

118 Human Sexual Behavior 3 Units Prerequisite: Psychology 107.
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

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.

133 Group Dynamics
UC
Prerequisite: None.
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
247 AB
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 conferencers.

## 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 ot assistance to those preparing for the real estate salesman's license examination.

## 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 tor advanced study in specialized courses. Will he of assistance to those preparing tor the real estate salesman's 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 $\begin{aligned} & 3 \text { Units } \\ & \text { Prerequisite: Real Estate } 100 \text { or Real Estate } \\ & \text { License }\end{aligned}$ : License.
Lecture: 3 hours per week
Day-to-day operations in real estate, over-view-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 RealEstate Broker'sexamination.

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

## RELIGIOUS STUDIES

[^6]Introduction to religion, emphasizing religious experience, the origins and functions ot 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

## Prerequisite: None

Lecture: 3 hours per week
Origins, beliefs, historical development, and contemporary concerns of the major world religions, with particular attention to the Hindu, Buddhist, Confucian, Judaic, Christian, and Islamictraditions.

135 Religion in America
3 Units
UC
Prerequisite: None.
Lecture: 3 hours per week
Study of the principal figures, issues, and trends in religious liberty in America; religion and social protest; the Black religious experience; Catholic, Protestant, Jewish, and contemporary religious phenomena. (Also listed as History 135)

## 246ABC Special Problems in Religious

Studies 1 Unit

## 247ABC

2Units
Prerequisite: Completion of or concurrent enrollment in a 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.

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

## 102 Fundamentals of Respiratory Therapy

Skills Lab I 9 Units
Prerequisite: Resp 050, Anat 101
Corequisite: Resp 101, 104
Lecture: 62 hours per semester and
Laboratory: 236 hours per semester
Laboratory skills for Respiratory Therapy 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 shills simulations.

## 103 Pulmonary Medical Terminology

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

104 Respiratory Therapy Clinical 4 Units
Application I
Prerequisite: Resp 050. Anat 101
Corequisite: Resp 101, 102
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 1 part A in the clinical syllabus.

105 Fundamentals of Respiratory
Therapy II 4 Units
Prerequisite: Completion of Resp 101, 102, 104, with a grade of C or better.
Corequisite: 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 Therapy Skills Lab II 4 Units
Prerequisite: Completion of Resp 101, 102, 104. with a grade of C or better. Corequisite: Resp 105, 108, 110
Lecture: 32 hours per semester and
Laboratory: 96 hours per semester
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 Therapy Clinical Application II

6 Units
Prerequisite: Completion of Resp 101, 101, 104, with a grade of C or better.
Corequisite: 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 Therapy 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, 104, with a grade of C or better.
Corequisite: Resp 105, 106, 108
Lecture: 2 hours per week
Study of clinical medicine, using local physicians to present respiratory-related disease processes through a combination of lecture and case presentation.

## 115ABCD Respiratory Therapy:

Supervision and In-Service Training 1 Unit Prerequisite: None.
Lecture: 12 hours per semester and
Laboratory: 20 hours per semester
In-service 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

Therapy I
4 Units
Prerequisite: Completion of Resp 101-110 with a grade of C or better.
Corequisite: 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 Therapy, and respiratory rehabilitation/home care.

## 202 Advanced Respiratory Therapy Skills Lab I 4 Units

Prerequisite: Completion of Resp 101-110 with a grade of C or better.
Corequisite: Resp 201, 203, 204, 205
Lecture: 2 hours per week and
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
Prerequisite: Completion of Resp 101, 102, 104, 105, 106, 108, 110 with a grade of Cor better.
Corequisite: 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 Therapy Clinical Application I 6 Units
Prerequisite: Completion of Resp 101-1 10 with a grade of C or better.
Corequisite: Resp 201, 202, 203, 205
Lecture: 40 hours per semester and
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 101-110, with a grade of C or better.
Corequisite: 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 Therapy II 4 Units
Prerequisite. Completion of Resp 101-110, 201-
205 with a grade of C or better.
Corequisite: 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 PT assessment techniques.

207 Physiological Basis of Respiratory Disease II

5 Units Prerequisite: Completion of Resp 101-106, 108, 110, 201-205 with a grade of C or better.
Corequisite: Resp 106, 208, 211 and 212
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.

## 208 Advanced Respiratory Therapy Clinical

 Application II8 Units
Prerequisite: Completion of Resp 101-110, 201205 with a grade of C or better.
Corequisite: Resp 206, 207, 211, 212
Lecture: 60 hours per semester and
Clinic: 360 hours per semester
Practice of advanced clinical skills, including pulmonary function and stress lab procedures. clinical syllabus level II. part 6.

## 211 Clinical Medicine II <br> 2 Units

Prerequisite: Completion of Resp 101-110, 101105 with a grade of C or better.
Corequisite: 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: 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.

216 Review for Respiratory Therapy
Certification: Written Registry
Examination
1½ Unit
Prerequisite: None.
Lecture: 24 hours per semester
Preparation of Respiratory Therapy Practitioners for the Written Registry Examination; discussion of the structure of the examination; practice sessions, including self-evaluation tests designed by the NBRT.

## 217 Review for Respiratory Therapy <br> Certification: Clinical Simulation

Examination 1 Unit
Prerequisite: None.
Lecture. 16 hours per semester
Preparation of Respiratory Therapy Practitioners for the Clinical Simulation Examination; discussion of the structure of the examination; practice sessions, including selfevaluation tests designed by the NBRT.

## 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 and planned field trips

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.

131 Marriage and the Family
3 Units UC
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 mul-ti-group society.

## SPANISH

130A Spanish for Public Employees 3 Units Prerequisite: None. 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.

1308 Spanish for Public Employees 3 Units Prerequisite:Spanish 130A.
Lecture: 3 hours per week
Continuation of Spanish 130A.
150 Spoken Spanish I $2 ½$ Units
UC*
Prerequisite: None.
Lecture: $2^{11 / 2}$ hours per week and
Laboratory: $1 / 2$ hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

151 Spoken Spanish I (continued) $2^{1 ⁄ 2} 2$ Units UC*
Prerequisite:Spanish 150.
Lecture: $21 / 2$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of Spanish 150.
155 College Spanish I
UC
Prerequisite: None.
Lecture: 5 hours per week and
Laboratory: 1 hour per week
Comprehension, conversation, reading, and composition, including drill in essential grammar at the elementary level.

## 160 Spoken Spanish II <br> UC*

Prerequisite: Spanish 151, or Spanish 155, or one year of high school Spanish.

Lecturer $21 / 2$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of Spanish 151

161 Spoken Spanish II (continued)
2½ Units
UC*
Prerequisite: Spanish 160.
Lecturer: $21 / 2$ hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of Spanish 160. (Spanish 160161 is equivalent to Spanish 165.)

165 College Spanish II 5 Units
UC
Prerequisite: Spanish 155 or Spanish 150 and 151, or one year of high school Spanish.
Lecture: 5 hours per week and
Laboratory: 1 hour per week
Continuation of Spanish 155.

166 Selected Studies in Spanish 1-3 Units UC*
Prerequisite: Spanish 165, or Spanish 160 and 161, or two years of high school Spanish, or equivalent proficiency.
Lecture: 1-3 hours per week and
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.

170 Spoken Spanish III 2 Units UC*
Prerequisite: Spanish 165, or Spanish 160 and 161, or two years of high school Spanish.
Lecture: 2 hours per week and
Laboratory: $1 / 2$ hour per week
Composition and conversation, including a review of grammar, plus extensive and intensive reading of practical as well as literary Spanish.

171 Spoken Spanish III (continued) 2 Units UC*
Prerequisite: Spanish 170.
Lecture. 2 hours per week and
Laboratory: $1 / 2$ hour per week
Continuation of Spanish 170. (Spanish 170-
171 is equivalent to Spanish 175.)

175 College Spanish III 4 Units UC
Prerequisite: Spanish 165, or Spanish 160 and 161, or two years of high school Spanish.
Lecture: 4 hours per week and
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.

## 185 College Spanish IV

4 Units
UC
Prerequisite: Spanish 175 or three years of high school Spanish.
Lecture: 4 hours per week and
Laboratory: 1 hour per week
Continuation of Spanish 175

## 210 Advanced Spanish Conversation

2 Units

## UC

Prerequisite: Spanish 165, or Spanish 160 and 161, or three years of high school Spanish.
Lecture: 2 hours per week
Practical conversation and vocabulary building on everyday life and customs of the people who speak Spanish. Classroom work entirely in Spanish, supplemented by recordingsand talks by native speakers.

## 235 Directed Reading in Spanish

2 Units UC
Prerequisite: Spanish 185.
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 <br> 2 Units <br> UC <br> Prerequisite. Spanish 195.

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

103 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.

105 Advanced Public Speaking 3 Units UC
Prerequisite: Speech 103.
Lecture: 3 hours per week
Practice in various forms of public speaking, with emphasis on audience analysis, and studyanalysis of selected famous speeches.

## 111 ABCD 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 of Literature

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.

## 122 Advanced Oral Interpretation of

Literature 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.

141 Small Group Decision Making and Leadership Skills

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 <br> 3 Units <br> UC <br> Prerequisite: Speech 141. <br> Lecture: 3 hours per week <br> Continuation of Speech 141

246AB Special Studies in Communication 1 Unit

247AB
2Units

248ABC
3Units
Prerequisite: Completion of or concurrent enrollment in a 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

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, quali-ty-quantity control, and management-employee relations.

## 012 Basic Psychology for Supervisors

3 Units
Prerequisite: None.
Lecture: 3 hours per week
Instruction to assist the supervisor in understanding co-workers, with emphasis on human perceptions, learning processes, emotions, attitudes, and personalities.

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.

## 014 Communications for Supervisors

3 Units
Prerequisite: None.
Lecture: 3 hours per week
Survey of supervisory communications in the modern organizational environment; interpersonal communication theory and practice, including both oral and written comniunications in individual and group settings; assistance in report, letter, and résumé writing.

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.

## 104 Creative Dramatics

2 Units
UC*
3 Units Prerequisite: None.
Lecture: 1 hour per week and
Laboratory: 2 hours per week
Theory and practice of improvisational drama, dramatization of children's stories, and techniques of storytelling, with emphasis on participation, leadership, and development of original materials for classroom and recreational use. Intended primarily for the elementary
school teacher, the nursery school teacher, parents or any individual having significant contact with children.

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 he taken in sequence.
Lecture: 5 hours per week and
Laboratory: 2 hours per week
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.

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
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: $1 / 2-1$ hour per week and
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.

## 144ABCD Theatre Workshop <br> 3 Units UC

Prerequisite: None. Courses must be taken in sequence.
Lecture: 3 hours per week
Laboratory: 6 hours per week ( 8 weeks)
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 114, Courses must he taken in sequence.
Lecture: 3 hours per week and
Laboratory: 6 hours per week ( 8 weeks)
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.

155ABCD Summer Theatre Workshop
2-4 Units
UC
Prerequisite: None. Courses must be taken in sequence.
Laboratory: 8-16 hours per week ( S weeks)
Instruction in the arras of stage production, acting, promotion, and publicity. Designed as theatrical experience for high school graduates and college freshmen.

## 175 Stage Make-up <br> 1 Unit UC* <br> Prerequisite: None. <br> 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

2 Units
UC*
Prerequisite: None.
Laboratory: 4 hours per week
Basic theories and practice of construction, painting, assembly, shifting and lighting of stage scenery and properties.

179 Fundamentals of Stagecraft -
Advanced Practicum
1 Unit UC*
Prerequisite: None.
Laboratory: 2 hours per week
Continuation of Theatre Arts 176, designed to extend the student's vocational opportunities in the theatrical profession. Emphasizes 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 BalletI
UC
Prerequisite: None. Courses must be taken in sequence.
Lecture: $1 / 2-1$ 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 ot a working knowledge of ballet terminology.

222•223 Advanced Acting UC
Prerequisite: Theatre Arts 130. Courses need not he taken in sequence.
Lecture: 3 hours per week
Theory and practice of characterization in soo and ensemble scenes.

1-2 Units 231ABCD Jazz Dance II
1-2 Units UC
Prerequisite: Theatre 130. Courses must be taken in sequence.
Lecture: $1 / 2-1$ 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.

## SECTION III

## TRANSFER AND ASSOCIATE DEGREE PROGRAMS

The following majors and pre-majors are available at Crafton Hills College. An asterisk (*) in front of the major indicates that this discipline is usually not a major at four-year colleges and universities; the associate degree is generally the highest degree you can get in that field. All other majors listed may he 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
Agriculture
Anthropology
Art
Astronomy
Biological Sciences
Business Administration
Chemistry
Computer and Information Sciences
Economics
Emergency Medical Services
English
Fire Technology
Floral Design

Foreign Language
Geography
Geology
History
Landscape Maintenance
Liberal Studies
Marketing
Mathematics
Microbiology
Music
Office Administration
Ornamental Horticulture
Philosophy
*Photography
Physical Education
Physics
Political Science
Pre-Dentistry
Pre-Education
Pre-Engineering
Pre-Forestry
Pre-Legal
Pre-Medicine
Pre-Nursing
Pre-Optometry
Pre-Pharmacy
Pre-Physical Therapy
Pre-Veterinary Medicine
Psychology
Religious Studies
Respiratory Therapy
Sociology
Speech
Theatre Arts
Turf Management
Wildland Fire Management

## 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 310, 311, 220, 221
Business Administration 217
Computer and Information Sciences 101
Economics 200, 201
Mathematics 104, 108
Recommended Core Courses for Associate Degree Students:
Accounting 026, 205, 210, 220, 225, 130
Business Administration 052, 101, 105, 117
Computer and Information Sciences 101
Economics 300, 201
Office Administration 100

## ADMINISTRATION OF JUSTICE

Recornmended Core Courses:
Administration of Justice 101, 101, 103, 104, 105

## AGRICULTURE

Recommended Core Courses:
Agriculture 101,101, 103, 104, 110, 111, 112, 121, 135, 137, 139, 150, 151
Business Administration 101, 105, 115
Chemistry 101, 102

## ANTHROPOLOGY

Recommended Core Courses:
Anthropology 100, 102, 106

ART<br>Recommended Core Courses:<br>Art 100, 102, 115, 116, 117<br>\section*{ASTRONOMY}

Recornmended Core Courses:
Astronomy 150
Chemistry 160, 161
Mathematics 153, 154, 253, 254
Physics 200, 201

## BIOLOGICAL SCIENCES

Recommended Core Courses:
Biology 130, 131, 201
Chemistry 160, 161, 214, 215
Mathematics 105, 106, 153
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 217
Computer and Information Sciences 101
Economics 200, 201
Mathematics 104, 108

## CHEMISTRY

Recommended Core Courses:
Chemistry 160, 161, 214, 215
Mathematics 153, 154, 253
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, 201
Philosophy 103

## EMERGENCY MEDICAL SERVICES

Consult your advisor to develop an appropriate course of study

## ENGLISH

Recommended Core Courses:
English 100, 152, 262, 263, 272, 273
Foreign Language*
*Varies from college to college; consult appropriate college catalog

## FIRE TECHNOLOGY

Consult your advisor to develop an appropriate course of study.

## FLORAL DESIGN

Recommended Core Courses:
Agriculture 101, 102, 104, 113, 114, 135, 150, 151, 152
Business Administration 101 and either Business Administration 105 or Accounting 205
Marketing 105

## FOREIGN LANGUAGE

Recommended Core Courses:
English 100, 152
Foreign Language 155, 165, 175, 185
Second Foreign Language 155, 165

## GEOGRAPHY

Recommended Core Courses:
Geography 102,110,114
Geology 100

## GEOLOGY

Recommended Core Courses:
Chemistry 160, 161
Geology 110, 112, 226
Mathematics 153, 154
Physics 110, 111

## HISTORY

Recommended Core Courses:
Geography 110

## LANDSCAPE MAINTENANCE

## Recommended Core Courses:

Agriculture 100, 102, 103, 112, 130, 133, 133, 135, 137, 139
Business Administration 101, 105, 115
Chemistry 101, 102

## LIBERAL STUDIES

This general education curriculum is suggested for students who have not vet 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.

Recommended 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

Recornmended Core Courses for Transfer Students:
Accounting 110, 211, 220, 211
Business Administration 217
Computer and Information Sciences 101
Economics 200, 201
Mathematics 104, 108
Recornmended Core Courses for Associate Degree Students:
Accounting 205, 210, 211, 220, 221
Business Administration 053, 101, 117
Computer and Information Sciences 101
Marketing 101, 105, 110, 115, 212
Speech 103, 105

## MATHEMATICS

Recommended Core Courses:<br>Computer and Information Sciences 102, 104<br>Foreign Language*<br>Mathematics 153, 154, 253, 254<br>Physics 200, 201

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

## MICROBIOLOGY

Recommended Core Courses:
Biology 130, 131, 201
Chemistry $160,161,214,215$
Mathematics 153
Microbiology 150, 221
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, 124-125, 201-202 (recommended for the second year of study), 130 and 145-116 (may be waived in part or whole by examination), and a performance group.

## OFFICE ADMINISTRATION

Recommended Core Courses:
Computer and Information Sciences 101
English 144, 152
Office Administration 103, 106, 119, 132

## ORNAMENTAL HORTICULTURE

Recommended Core Courses:
Agriculture 100, 101, 102, 103, 104, 110, 111, 112, 135, 137, 139
Business Administration 101 or 105 or 115
Chemistry 101, 102

## PHILOSOPHY

Recommended Core Courses:
Philosophy 101, 103, 105
Religious Studies 101

## PHOTOGRAPHY

Recommended Core Courses:
Art 115, 116, 280
Photography 150, 151, 152, 222, 250, 252

## PHYSICAL EDUCATION

Recommended Core Courses:
Anatomy/Physiology 150 and 151
Biology 120
EMS 001A

Health Education 102
Physical Education 267
Psychology 107
Sociology 100
Minimum of one activities course per semester

## PHYSICS

Recommended Core Courses:
Chemistry 160, 161
Mathematics 153, 154, 353, 254
Physics 200, 201

## POLITICAL SCIENCE

Recommended Core Courses:
Economics 700, 201
History 100, 101
Political Science 100, 203, 204

## PRE-DENTISTRY

Recommended Core Courses:
Biology 130, 131
Chemistry 160, 161, 214, 215
Physics 110, 111

## PRE-EDUCATION

This program is designed for those who are interested in teaching in the California public schools. Presently, there are four 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 typically 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. The Ryan Act also mandates a series of examinations for a teaching credential, but the examination for this credential is waived if the student is a Liberal Studies or Diversified major.

In addition to the general education and lower division requirements for transfer, the following electives are recommended:
Art 115-116 (6 units)

English 262-263 (6 units)
Health Education 102 (3 units)
History 137 (3 units)
Mathematics 138 (4 units)
Music 100 (3 units)
Sociology 105 (3 units)

## SECONDARY

Persons interested in teaching at the secondary level should pursue the Single Subject credential with a specific major. An examination is required for all candidates except those who have completed their work at an institution authorized to waive the examination. 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 (3)
Economics 201 (3)
Health Education 102 (3)
Psychology 112 (3)
Sociology 100 (3)
Sociology 105 (3)

## PRE-ENGINEERING

Recommended Core Courses:
Chemistry 160, 161
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 160, 161
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 program to meet the requirements of the Law school of his/her choice.

Recommended Core Courses:
Economics 200, 101
English 100, 152
History 100, 101, 160, 161
Philosophy 103
Political Science 100
Psychology 107
Sociology 100
Speech 103, 105

## PRE-MEDICINE

Recommended Core Courses:
Biology 130, 131, 201
Chemistry 160, 161, 214, 215
Mathematics 153
Physics 110, 111

## PRE-NURSING

Recornmended Core Courses:
Anatomy/Physiology 150, 151
Chemistry 102, 160
Microbiology 150

## PRE-OPTOMETRY

Recornmended Core Courses:
Anatomy /Physiology 150, 151
Biology 130, 131
Chemistry 160, 161, 214, 215
Mathematics 108, 153, 154
Physics 110, 111

## PRE-PHARMACY

Recommended Core Courses:
Biology 130, 131
Chemistry 160, 161, 214, 215
Mathematics 153, 154
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 $160,161,214,215$
Mathematics 108
Physics 110, 111

## PSYCHOLOGY

Recommended Core Courses:
Chemistry 101
Mathematics 108
Psychology 107, 108, 112

## 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 THERAPY

Required Core Courses:
Allied Health 101
Anatomy/Physiology 101
Chemistry 101
Emergency Medical Services 001A, 001B
English 015 or 100
Humanities - any one 3-unit course
Interdisciplinary Studies 130
Mathematics 051 (or a passing score on the Mathematics Proficiency Examination)
Microbiology 102
Physics 101
Respiratory Therapy $050,101,102,104,105,106,108,110,201,202,203,204,205,206,207$, 208, 211, 212
Social Science - any two 3-unit courses

Notes:

1. Program begins summer semester only. Application Deadline: May 1.
2. Students must complete the Respiratory Therapy Technician Certificate (see Section IV) plus Chemistry 101 and Physics 101 prior to entering the second year.
3. Students must complete the Respiratory Therapy 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 262, 263, 272, 273
Speech 103, 105, 111A, 111B, 120, 122, 141
Theatre Arts 120

## THEATRE ARTS

Recommended Core Courses:
Speech 120
Theatre Arts $100,108,120,176 \mathrm{ABCD}, 222$

## TURF MANAGEMENT

Recommended Core Courses:
Agriculture 102, 103, 130, 131, 132, 133, 134, 135, 137, 139
Business Administration 101
Chemistry 101, 102

## WILDLAND FIRE MANAGEMENT

Consult your advisor to develop an appropriate course of study.

## SECTION IV OCCUPATIONAL CERTIFICATE PROGRAMS

Accounting
*Administration of Justice Business Management
California Fire Officer Training
Clerk-Typist
Emergency Medical Technician I Emergency Medical Technician II
Emergency Medical Technician

- Paramedic

Fire Academy
Fire Technology
Floral Design
Landscape Maintenance

Legal Secretary
Marketing Management
Medical Secretary
Mobile Intensive Care Nurse
Ornamental Horticulture
Respiratory Therapy Technician
Stenographer
Supervision
Turf Management
Wildland Fire Management
Word Processing

* Offered under a conjoint arrangement with
San Bernardino Valley College

In this section, you will find the precise course requirements for each certificate. You will note that few "academic"courses are included. Such courses are not required, but 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 101 - Principles of Marketing
3. Business Administration 101 - Introduction to Business
4. Economics 200 or 201
5. Business Administration 217 - Business Law
6. Business Administration 052 - 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

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 225 | Intermediate Accounting |
| :---: | :--- |
| Acct 026 | Cost Accounting |
| or | State and Federal Income Tax |
| Acct 230 | Accounting |

## 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.

## 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 101
3. Business Administration 101
4. Business Administration 217
5. Business Administration 052 or Math 108
6. Computer and Information Sciences 101
7. One Computer Language
8. Office Administration 100
9. Economics 200 or 201

## PLUS THE FOLLOWING SPECIALTY COURSES

| Busad 206 | Principles of Management | 3 |
| :--- | :--- | :---: |
| Busad 105 | Small Business Management | 3 |
| Busad 135 | Women in Management | (3) |
| or |  | $(3)$ |
| Busad 217 | Business Law | 3 |
| C\&IS 101 | Survey of Data Processing | 3 |
| Acct 220 | Principles of Accounting | 1 |
| Acct 221 | Principles of Accounting Lab |  |

## 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

| OA 100 | Beginning Typewriting | 3 |
| :--- | :--- | :--- |
| OA 103 | Intermediate Typewriting (Proficiency <br> level - 50 words a minute) | 3 |
| OA 140 | Records Management | 3 |
| OA 141 | Office Training | 6 |
| OA 145 | Human Relations in the Office | 3 |
|  | Environment |  |
| OA 053 | Office Experience | 3 |
| Busad 052 | Applied Business Mathematics | 3 |
| Acct 205 | Bookkeeping | 3 |

TOTAL 27

# EMERGENCY MEDICAL TECHNICIAN-I CERTIFICATE 

Required Course<br>EMS 021-B Emergency Medical Technician-I-A 5<br>or<br>EMS 021-C Emergency Medical Technician-I-NA 5

TOTAL 5

# EMERGENCY MEDICAL TECHNICIAN-II CERTIFICATE 

| Prerequisite |  | Units |
| :--- | :--- | :--- |
| EMS008 | Integrated Science and Basic Medical |  |
| EMS 021-B | Language for Paramedics |  |
| Emergency Medical Technician-I-A |  |  |

Required Courses Units
EMS 020-B Introduction to Emergency Medical Care-II .....  5
EMS 023-A Cardiology for the Emergency Medical ..... 3
Technician-II
EMS 023-B Pharmacology for the Emergency Medical ..... 2Technician-IIEMS 023-C Skills Development for the Emergency3.5
Medical Technician-II
EMS 023-D Clinical Externship for the Emergency ..... 5Medical Technician-II
EMS 024-A Field Externship for the Emergency ..... 5Medical Technician-II
EMS 024-B Preceptorship for the Emergency Medical ..... 5
Technician-II
ARTICULATION FROM EMT-II TO PARAMEDIC

Required Courses
EMS026A Orientation to Emergency Medical Care: EMT-II to ParamedicCare: EMT-II to Paramedic 5EMS $0268 \quad$ Cardiology Articulation: EMT IIto Paramedic1EMS 026C Pharmacology Articulation:EMT II to Paramedic1EMS 026D Skills Development Articulation:EMT II to Paramedic2EMS 027A Clinical Articulation: EMT IIto Paramedic2

EMS 027B Field Articulation: EMT IIto Paramedic4

## EMERGENCY MEDICAL TECHNICIAN PARAMEDIC

| Prerequisites |  | Units |
| :--- | :--- | :--- |
| Currently Certified EMT-I |  |  |
| Six months field experience |  |  |
| Anat 101 | General Anatomy and Physiology |  |
| AH 101 | Medical Terminology |  |
| Required Courses |  |  |
| EMS 020-C | Introduction to Emergency Medical Care | 1 |
| EMS 028-A | Cardiology for Paramedics | 4 |
| EMS 028-B | Pharmacology for Paramedics | 3 |
| EMS 028-C | Skills Development for the Paramedic | 4 |
| EMS 028-D | Clinical Externship for the Paramedic | 3 |
| EMS 029 | Field Externship for the Paramedic | 6 |

## FIRE ACADEMY CERTIFICATE

Leads to entry-level employment as a fire fighter.
Prerequisites
EMS 021B Emergency Medical Technician 1A
Firet $100 \quad$ Introduction to Fire Technology
Firet $101 \quad$ Fundamentals of Fire Prevention
Required Courses
Firet $075 \quad$ Fire Technology Basic Training Academy 9 Units

## FIRE TECHNOLOGY CERTIFICATE

Studies in the theory and practice of fire management in urban and suburban settings.

| EMS 021B | Emergency Medical Technician 1A | 5 |
| :--- | :--- | :--- |
| Firet 100 | Introduction to Fire Technology | 3 |
| Firet 101 | Fundamentals of Fire Prevention |  |
| Firet 103 | Fundamentals of Personal Fire Safety <br> and Emergency Care | 3 |
| Firet 108 | Fundamentals of Fire Behavior and <br> Control | 3 |
| Firet 201 | Fire Protection and Equipment  <br> Electives Systems | 3 |
|  |  | 3 |
|  |  | 6 |

TOTAL 26
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.

## FLORAL DESIGN CERTIFICATE

|  |  | Units |
| :---: | :--- | :---: |
| Agri 101 | Plant Identification: Indoor Plants | 2 |
| Agri 102 | Plant Identification: Shrubs | 3 |
| Agri 103 | Plant Identification: Trees |  |
| Agri 104 | Plant Identification: Herbaceous | 3 |
|  | Plants | 3 |
| Agri 114 | Retail Nursery Management | 3 |
| Agri 150 | Floral Design I | 2 |
| Agri 151 | Floral Design II | 2 |
| Agri 152 | Floral Design III | 2 |
| Agri 246 | Special Problems in Agriculture | $(1)$ |
| (Optional) |  |  |
| Agri 052 | Horticulture for the Home | $(2)$ |
| or |  |  |
| Agri 051 | Indoor Plants and Gardens |  |
| Busad 105 | Small Business Management | $(2)$ |
| or |  | $(3)$ |
| Acct 205 | Bookkeeping |  |

## LANDSCAPE MAINTENANCE CERTIFICATE

Units
Plant Identification: Shrubs ..... 3
Agri 102Agri 103Plant Identification: Trees3Agri 104
Plant Identification: Herbaceous Plants ..... 3
Agri 105 Plant Identification: Native California Plants ..... (2)
orAgri 122
Introduction to Forestry and Natural Resources ..... (2)
Agri 111 Nursery Practices ..... 3
Agri 131 Landscape Construction ..... 3
Agri 132 Irrigation and Sprinklers ..... 3
Agri 133 Turf Management ..... 3
Agri 135 Plant Pest Control ..... 3
Agri 137 Residential Landscape Design ..... 3
Agri 139 Soils and Fertilizers ..... 3
Agri 246 Special Problems in Horticulture ..... (1)
(Optional)
Busad 101 ..... (3)
Introduction to Businessor
Busad 105 Small Business Management ..... (3)or
Busad 217 ..... (3)
Business LaworMarket 115 Retailing Principles
or
Agri 114 Retail Nursery Management ..... (3)
(3)

## LEGAL SECRETARY CERTIFICATE

Units
OA 100 Beginning Typewriting ..... 3
OA 103 Intermediate Typewriting ..... 3
OA 110 Beginning Word Processing ..... 4
OA 118 Elementary Shorthand ..... 6
OA 119 Intermediate Shorthand ..... 6
OA 140 Records Management ..... 3
OA 145 Human Relations in the Office Environment ..... 3
OA 155 Legal Office Procedures ..... 3
OA 156 Legal Terminology and Transcription ..... 3
Acct 205 Bookkeeping ..... 3

## 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 101 - Principles of Marketing
3. Business Administration 101 - Introduction to Business
4. Economics 200 or 201
5. Business Administration 217 - Business Law
6. Business Administration 052 - 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 |
| :---: | :---: | :---: |
| Busad 206 | Principles of Management | 3 |
| Market 105 | Principles of Salesmanship | 3 |
| Market 110 | Advertising | 3 |
| Busad 105 | Small Business Management | 3 |
| $\begin{aligned} & \text { C\&IS } 101 \\ & \text { or } \end{aligned}$ | Survey of Data Processing | (3) |
| Business Elective | (Student's Choice) | (3) |
|  | TOTAL |  |
| MEDICAL SECRETARY CERTIFICATE |  |  |
| OA 100 | Beginning Typewriting | Units 3 |
| OA 103 | Intermediate Typewriting | 3 |
| OA 110 | Beginning Word Processing | 4 |
| OA 118 | Elementary Shorthand | 4-6 |
| OA 119 | Intermediate Shorthand | 6 |
| OA 167 | Medical Dictation and Transcription | 3 |
| OA 168 | Medical Terminology and Transcription I | 6 |
| OA 169 | Medical Terminology and Transcription II | 6 |
| OA 140 | Records Management | 3 |
| OA 145 | Human Relations in the Office | 3 |
|  | Environment |  |
| OA 165 | Medical Office Procedures | 3 |

## MOBILE INTENSIVE CARE NURSE CERTIFICATE

Prerequisites (or Corequisites as appropriate)
Units
Registered Nurse
One year current experience in Emergency Nursing.
EMC 100-A Cardiology for the Health Professional
EMC 002-A Advanced Cardiac Life Support - Provider
Required Course
EMC 100-C Mobile Intensive Care Nurse
TOTAL 2

## ORNAMENTAL HORTICULTURE CERTIFICATE

Agri 101
Agri 102
Agri 103
Agri 104
Agri 105
Agri 111
Agri 112
Agri 114
Agri 135
Agri 136
Agri 139
Agri 246 (Optional)
Busad 217
or
Busad 101
or
Busad 105
or
Market 115

Plant Identification: Indoor Plants
Units
2
Plant Identification: Shrubs 3

Plant Identification: Trees 3
Plant Identification: Herbaceous Plants 3
Plant Identification: Native California Plants2
Nursery Practices ..... 3
Plant Propagation ..... 3
Retail Nursery Management ..... 3
Plant Pest Control ..... 3
Greenhouse Management ..... 3
Soils and Fertilizers ..... 3
Special Problems in Horticulture ..... (1)Business Law(3)
Introduction to Business ..... (3)
Small Business Management ..... (3)
Retailing Principles(3)
TOTAL ..... 34-35
RESPIRATORY THERAPY TECHNICIAN CERTIFICATE

|  |  | Units |
| :--- | :--- | :---: |
| Anat 101 | General Anatomy and Physiology | 4 |
| AH 101 | Medical Terminology | 3 |
| EMC001A | Basic Cardiac Life Support Provider | .25 |
| Engl 015 | Basic Writing | (3) |
| or | Freshman Composition | $(3)$ |
| Engl 100 | Ethical Issues in Modern Medicine | 3 |
| Intdis 130 | Review Arithmetic and Introduction <br> Math 051 | (3lgebra |

or
a passing score on the Mathematics Proficiency Examination
Micro 102 Introductory Microbiology 4
Resp 050 Introduction to Respiratory Therapy 3
Resp $101 \quad$ Fundamentals of Respiratory Therapy $1 \quad 4$
Resp 102 Fundamentals of Respiratory Therapy: 9
Skills Lab I
Resp 104 Respiratory Therapy Clinical Application I 4
Resp 105 Fundamentals of Respiratory Therapy II 4
Resp 106 Fundamentals of Respiratory Therapy: 4
Skills Lab II
Resp 108 Respiratory Therapy Clinical Application II 6
Resp $110 \quad$ Clinical Medicine I 2
TOTAL 53.25-56.25
Notes:

1. Program begins summer semester only. Application deadline: May 1.
2. Anat. 101 and Resp. 050 must be completed prior to the fall semester.
3. Students must complete the course work for the Respiratory Therapy Technician Certificate within a three-year period to receive Department certification.

## STENOGRAPHER CERTIFICATE

|  | Units |  |
| :--- | :--- | :---: |
| OA 100 | Beginning Typewriting <br> OA 103 | Intermediate Typewriting <br> (Proficiency level - 60 words a minute) |
| OA 118 | Elementary Shorthand (Cregg) | 3 |
| OA 119 | Intermediate Shorthand (Cregg) <br> (Proficiency level - 80 words a minute | $4-6$ |
|  | for three minutes) | 6 |
| OA 140 | Records Management | 3 |
| OA 141 | Office Training | 6 |
| OA 145 | Human Relations in the Office Environment | 3 |
| OA 053 | Office Experience | $3-9$ |
| Busad 052 | Applied Business Mathematics | 3 |
| Acct 205 | Bookkeeping | 3 |

TOTAL 37-45

## 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 210-211 or Bookkeeping 205
2. Marketing 101 - Principles of Marketing
3. Business Administration - Introduction to Business
4. Economics 200 or 201
5. Business Administration 217 - Business Law
6. Business Administration 052 - Business Math or Mathematics 108 - Statistics
7. Office Administration 100 - Typewriting
8. One Computer Language
9. Computer and Information Services 101

## PLUS THE FOLLOWING SPECIALTY COURSES:

Units
sup 010 Elements of Supervision ..... 3
sup 012 Basic Psychology tor Supervisors ..... 3
sup 013 Human Relations ..... 3
Sup 014 Communication for Supervisors ..... 3
Sup 015 Organization and Management ..... 3
TURF MANAGEMENT CERTIFICATE
Agri 102 Plant Identification: Shrubs
Agri 103 Plant Identification: Trees ..... 3
Agri 122 Introduction to Forestry and Natural Resources ..... 2
Agri 130 Landscape Maintenance ..... 3
Agri 131 Landscape Construction ..... 3
Agri 132 Irrigation and Sprinklers ..... 3
Agri 133 Turf Management ..... 3
Agri 134 Greenskeeping ..... 3
Agri 135 Plant Pest Control ..... 3
Agri 137 Residential Landscape Design ..... 3
Agri 139 Soils and Fertilizers ..... 3
Agri 246 Special Problems in Horticulture ..... (1)Units

## WILDLAND FIRE MANAGEMENT CERTIFICATE

Students seeking a certificate in Wildland Fire Management must coordinate their program of studies with a faculty advisor from the Crafton Hills College Regional Emergency Training Institute. A typical program will consist of:

## Units

Firet 085 Fire Command I-A 2-3
Firet 149
Basic Incident Command System
3
Firet $152 \quad$ Prescribed Fire Training 3
Firet $161 \quad$ Operations Section Chief 3
Firet 162 Logistics Section Chief 3
Firet 210 Fire Behavior 3
Firet 211 Aviation and Management 3
Electives 9
TOTAL 29-30
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.

## WORD PROCESSING CERTIFICATE

| OA 053 | Office Experience | 3 |
| :--- | :--- | :--- |
| OA 103 | Intermediate Typewriting | 3 |
| OA 110 | Beginning Word Processing | 4 |
| OA 111 | Intermediate Word Processing | 4 |
| OA 112 | Advanced Word Processing | 3 |
| OA 140 | Records Management | 3 |
| OA 141 | Office Training | 6 |
| OA 145 | Human Relations in the Office |  |
|  | Environment |  |
| C\&IS101 | Survey of Data Processing | 3 |
| Engl 144 | Business English | 3 |
|  |  | 3 |

## 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 four-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 State College, San Bernardino
California State College, Stanislaus
California Polytechnic State University, San Luis Obispo

California State Polytechnic University, Pomona<br>California State University, Chico<br>California State University, Dominguez Hills<br>California State University, Fresno<br>California State University, Fullerton<br>California State University, Hayward<br>California State University, Long Beach<br>California State University, Los Angeles<br>California State University, Northridge<br>California State University, Sacramento<br>Humboldt State University<br>San Diego State University<br>San Francisco State University<br>San Jose State University<br>Sonoma 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 2.00 or better before they are eligible to transfer. (Exception: If you have already been admitted by a CSU campus as a freshman, you can usually transfer to that campus with any number of units within a year of your original acceptance.) A maximum of seventy semester units earned at a community college will be accepted toward the bachelor's degree.

## 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

6-9 units required. All students must complete English 100 and 3-6 additional units from the following:

English 152
Philosophy 103
Speech 103, 105, 111
B. PHYSICAL AND LIFE SCIENCE/MATHEMATICS

9-12 units required. One course must be completed from at least two of the three categories. One of the courses MUST include a laboratory.

Biological Science
Anatomy/Physiology 101, 150, 151

Physical Science
Astronomy 150+, 160
Chemistry 101, 102, 160,

Mathematics
Mathematics 104, 105, $108,138,140,153,154$,

| Biological Science | Physical Science | Mathematics |
| :--- | :--- | :---: |
| Biology 120, 122,123* | 161 | 204 |
| 130,131,201 | Geography 110+, 111, 114*, |  |
| Microbiology 102, 150 | $126^{*}$ |  |
| Oceanography 101* | Geology 100, 101*, 112, |  |
|  | $150^{*}, 250^{*}, 252^{*}$ |  |
|  | Oceanography 101* |  |
|  | Physics 101,110,111, 200, |  |
|  | 201 |  |

## *Non-lab 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, 108 Literature/English 152, 160, 170,
Foreign Language 150, 151, 155, 160 $161,165,170,171,175,185,210$, 242
History 160, 161, 166, 167
Interdisciplinary Studies 132, 140, 160

234, 235, 250, 251, 262, 263, 272, 273, 276
Music 100, 120, 121, 124, 125
Philosophy 101, 105
Religious Studies 100, 101, 135
Speech 120, 122
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 fultills the US History, Constitution, and American Ideals requirement. (Title V, CAC, Section 40404)
Anthropology 100, 102, 106
Economics 100, 200, 221
Geography 103
History 100, 101, 120, 135, 137, 142,
Political Science 100, 203, 206, 212, 225
Psychology 107, 108, 110, 112,116, 133
Sociology 100, 105, 131, 141 $145,153,160,161,163,166,167$

## E. LIFELONG UNDERSTANDING AND SELF-DEVELOPMENT

3 units required.

Biology 155
Health Education 101, 102
Philosophy 105
Physical Education 262, and any 1 unit of a physical education activity class

Psychology 103, 116, 118, 133, 158
Sociology 131
and Speech 111, 141

## 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 were not eligible for admission as a freshman only because you had not studied one or more of the required high school subjects, you may be admitted after you have
a. established an overall grade point average of 2.0 or better in another college or university;
b. completed, with a grade of C or better, appropriate college courses in the high school subjects that you lacked; and
c. completed twelve or more quarter or semester units of transferable college credit since high school graduation or have successfully passed the CEEB tests required of freshman applicants.
3. If you were not eligible for admission as a freshman because of low scholarship or a combination of low scholarship and a lack of required subjects, you may be admitted after you have
a. Established an overall grade point average of 2.4 or better in another college or university; and
b. completed 84 quarter units or 56 semester units of college credit in courses accepted by the University for transfer; and
c. completed, with a grade of C or better, appropriate college courses in high school subjects that you lacked. Up to two units (a unit is equal to a year's course) of credit may be waived. OR Completed one college course in mathematics, one in English and one in either U.S. History, a laboratory science, or a foreign language. You must pass these courses with a grade of C or better. Courses other than mathematics must be transferable to the University. The course in mathematics must complete a sequence of courses at least as advanced as the equivalent of two years of high school algebra (elementary and intermediate) or one year of algebra (elementary) and one year of high school geometry.

## UNIVERSITY OF CALIFORNIA, RIVERSIDE

For specific courses required for the various majors, see the UCR catalog and consult your counselor or adviser.

## 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 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:
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, Psychololgy 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 may 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, 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 100 with a grade of "C" or better (three semester units).
2. American History and Institutions (see UCLA catalog): Either Political Science (three semester units) or one transferable course in United States History (three semester units) taken at Crafton Hills College.
3. Foreign Language: The College of Letters and Science does not have a collegewide requirement for foreign language. Students should consult the catalog concerning language requirements for specific majors.

## COLLEGE OF FINE ARTS

Majors offered in the College of Fine Arts include Art History, Dance Design, Ethnic Arts, Motion Picture/Television, Music, Painting/Sculpture/Graphic Arts, and Theatre.

The College admits students for the fall quarter only. Preference is given to those who have a 3.0 grade point average and who have completed all the breadth requirements.

1. English Composition: English 100-152.
2. American History and Institutions requirement.
3. Foreign Language: Eight semester units in one language
4. Science/Mathematics: Two courses required, with at least one course to be chosen from biological or physical science.
5. Social Science: Three courses required, including History 100-101.
6. Humanities: Three courses required, including one course each in the Arts, Literature, and Philosophy/Religion. Performance, Studio, or Film courses will not fulfill this requirement.

## COLLEGE OF LETTERS AND SCIENCE

English Composition: English 100-152
Area Requirements: Humanities, Life Sciences, Social Sciences, Physical Sciences
Students are required to complete nine courses (twenty-seven semester units) distributed among the three divisions outside the division of the major field, with at least two courses in each division. Courses used for these requirements are subject to the following conditions.

1. All language courses level 4 or above may be applied as Humanities courses. Level 1, 2, and 3 courses may be used, provided that the student has completed the
level 4 course in the same language. Conversational courses may not be used to satisfy the Humanities requirement. Breadth requirement credit for courses in languages which do not offer level 4 courses is contingent on completion of the highest level offered.
2. Courses used to satisfy the English Composition Requirement may not also be used to satisfy the breadth requirements.
3. Courses required to satisfy the major or other courses taken in the malor department may not be used to satisfy the breadth requirements. However. courses outside the division of the major which are required as preparation for a major may be used to satisfy these requirements.
4. Course used to satisfy the American History and Institutions requirement may not also be used to satisfy the breadth requirements.

## 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 100 with a grade of " C " or better at Crafton Hills College.
2. American History and Institutions: 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. 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 100 and 152
II. Natural Sciences

Two courses from one area:

1) Astronomy 150 and Oceanography 101
2) Biology 120, 122, 123, 130, 131, 201; Microbiology 102, 150
3) Chemistry 160,161
4) Geology 100, 112
5) Physics 110, 111, 200, 201
III. Social and Behavioral Sciences

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 103*, 110*
Political Science 100*, 203, 206*, 212*
Psychology 107*, 108, 113
Sociologv 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, 262, 263, 272, 273, 376
History 100, 101, 120, 153, 160, 161, 163, 166, 167
Music 120, 121, 124, 125
Theater Arts 108, 109
V. Foreign Language, Linguistics, Logic*, Mathematics, Computer Science Two courses in the same subject area from:

French 175 and 185
German 175 and 185
Spanish 175 and 185
Mathematics 108, 153, 154

Computer and Information Science 102 or 104 (The remainder of this requirement must be fulfilled at UC Irvine)
*Can only be fulfilled 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. Scientific Method
4. Creativity in the Arts
5. Personal Commitment and Ethics
6. Social Priorities
7. American Institutions
8. Cultural and Historical Perspectives

In addition, courses in physical education are required of all students who can benefit from such instruction.

A key word is "approved." If you are planning to transfer to Redlands, make sure that the courses you take at Crafton match substantively those offered at Redlands. If in doubt, check with a faculty advisor. However, 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. If you transfer 60 or more, you are exempt from course work in two value categories: "Personal Commitment and Ethics" and "Social Priorities." If you transfer between 30 and 59 units, you are exempt from one of the two categories - your choice. You should also know that the number of physical education activities required of transfer students is equal to one-half or more of the number of semesters the student attends the University.

## FACULTY

The dates in parentheses indicate the year of appointment with the San Bernardino Community College District.
ALLEN, JOSEPH T., JR. (1954)Anthropology/Geology
ProfessorB.A., B.S., University of AlabamaM.A., Johns Hopkins University
ALVERSON, SYLVIA M. (1961)Assistant ProfessorA.A., College of the Desert
BAGGETT, OLEN G., JR. (1965) Physical Education
Professor
B.A., M.A., California State University, Los Angeles
BARR, COLLETTE E. (1982) ..... Economics
Instructor
B.A., University of California, Los Angeles
M.A., University of California, Los Angeles
BISI, JAMES G. (1968) ..... CounselingAssociate Professor
B.S., California State College (PA)M A, California State University, San Jose
BLUME, HARRIET C. (1979)
Foreign Language
Assistant Professor
Diplome de litterature, Francaise Contemporaine, University of ParisM.A., University of Redlands

BONING, ERMALEA (1964)
Office Administration
Associate Professor
B.A., Oklahoma State University
M.A., Arizona State University

BOOTH, RICHARD (1972)
English
Professor
B.A., University of California, Santa Barbara
M.A., California State University, San Diego

BRAINARD, CEYLON ANTHONY (1976)
Respiratory Therapy
Associate Professor
B.A., University of Redlands

BRYSON, KENNITH L. (1979)
Respiratory Therapy
Assistant Professor
B.V.E., California State College, San Bernardino

BYRON, ELIZABETH J. (1979)
Library
Assistant Professor
B.A., University of Redlands
M.S., California State University, Fullerton

CABANILLA, CLIFFORD D. (1966) Theatre Arts
Professor
B.S., M.A., Brigham Young University

CARRION, NESTOR A. (1976)
Assistant Professor
B.A., LaVerne College

CARTER, MARIAN T. (1970)
Reading/Speech/Psychology
Associate Professor
B.A., M.S., University of Omaha

CHAPIN, EDWARD L., JR. (1953)
Assistant Dean, Continuing Education
B.A., California State University, Fresno
M.A., Ph.D., University of California, Los Angeles

COLVEY, KIRSTIN (1981)
Handicapped Services
Learning Disabilities Specialist
B.A., University of California. Santa Cruz
M.S., Pepperdine University

DE SALLIERS, DEBORAH (1976)
Physical Education
Associate Professor
B.S., Pepperdine University
M.S., University of California, Los Angeles

EDWARDS, JAY C. (1982)<br>Instructor<br>B.G.S., University of Nebraska

Computer and Information Sciences

FOX, GERRE E. (1983)<br>Emergency Medical Services<br>Instructor<br>A.S., College of the Desert<br>FRANKLIN, BRADLEY H. (1979)<br>Respiratory Therapy<br>Assistant Professor<br>B.S., University of Missouri

GABRIEL, JAMES W. (1980) Agriculture
Assistant Professor
B.S., M.S., California Polytechnic State University, San Luis Obispo

GALBRAITH, ROBERT T. (1967)
Professor
B.A., University of California, Santa Barbara
M.A., California State University, Long Beach

GATCHEL, RICHARD H. (1971)
Professor
B.D., Union Theological Seminary
B.A., Ph.D., Stanford University

GAUSTAD, VIRGINIA M. (1970)
Office Administration Professor
B.B.A., Baylor University
M.A., University of Redlands

GIACONA, JUDITH A. (1981) (Part-time) College Nurse
Assistant Professor
B.S., Walla Walla College, Washington

GONZALEZ, RAYMOND (1972) Foreign Language
Professor
B.A., M.A., University of California, Riverside

GRIFFITH, BARTON L. (1976)
Marketing \& Business Administration
Associate Professor
B.S., University of Denver
M.A., Northern Colorado State University

HOLTKE, GERALD A. (1975)
Accounting
Associate Professor
B.B.A., University of Cincinnati
M.B.A., University of Santa Clara

HOOKER, MARIE A. (1982) (Part-time)
College Nurse
B.S., Columbia Union College

## HOYT, WILLIAM H. (1955)

Physical Education
Professor
B.S., M.A., University of California, Los Angeles
HULTEN, GARY A. (1974) Respiratory Therapy
Assistant Professor
B.V.E., California State College, San Bernardino

KLING, FRANCIS J. (1965)
Sociology
Professor
B.A., California State College, Sanislaus
M.A.. San Diego State University

LAMBERT, CLARENCE D. (1965)
Chemistry
Professor
B.S., Utah State University
M.S., University of Utah

LESIGHT, KENNETH (1979)<br>Music<br>Assistant Professor<br>B.S., The Pennsylvania State University<br>M. A., Stephen F. Austin State University

LICERIO, MAMERTO D. (1979)
Handicapped Services
College Specialist
B.A., M.S., San Francisco State University

McCLANAHAN, ELAINE B. (1977)
Microbiology
Associate Professor
B.S., State University of New York, Albany
M.A., California State University, Fullerton

McCUNE, RONALD M. (1977)
Allied Health
Assistant Professor
B.A., Pepperdine University

MILLER, ARTHUR F. (1974)
Psychology
Assistant Professor
B.A., M.A., Ed D, Northern Colorado University, Greeley
NEUMAN, VIOLET H. (1976)Counseling
Associate Professor
B.S., Northern Illinois University
M.A., California State College, San Bernardino
ORR, BILL (1971) MathematicsAssociate ProfessorB.S., California State Polytechnic University, PomonaM.S., University of Oregon, EugeneEd.D., Nova University
PATRICK, SYLVESTER L. (1964) Counseling
Assistant Professor
B.A., M.A., University of Southern California
ROBERTS, CONNELL B. (1974) Chemistry
Assistant Professor
B.S., M.S., Brigham Young University
Ed. D., University of California Berkeley
SCHUILING, WALTER C. (1964)
Professor
B.Ed., Bemidji State University
M.A., Ph.D., University of Minnesota
SHAW, RAYMOND W. (1953) ..... Fire Technology
Assistant Professor
A.A., San Bernardino Valley College
SHIELDS, ANDREA L. (1971)
Associate Professor
B.A., University of Arizona
M.A., University of the Pacific
SIMCOX, CHARLES Q. (1980)
Assistant Dean for Occupational Education
B.S., Lock Haven State College
M.S , Bucknell University
Ph.D., The Pennsylvania State University
SINGER, DONALD L. (1982)PresidentB.A., M.S., M.A., Ph.D., University of Southern California
SMITH, NORMAN ..... D. (1972)
Professor
B.A., University of California, Los Angeles
MA., University of Redlands
Ed.D., Pepperdine University

SNOWHITE, MARK S. (1967)<br>English<br>Associate Professor<br>B.A., University of Maryland<br>M.A., University of California, Riverside<br>STEFFENS, MARY E. (1981)<br>Business Administration<br>\section*{Assistant Professor}<br>B.A., M.B.A., California State College, San Bernardino<br>STODDARD, JOAN G. (1980)<br>Dean of Instruction<br>A.B., Occidental College<br>M.A., California State University, Long Beach<br>Ph.D., Northwestern University<br>TAYLOR, KATHARYN K. (1979)<br>Respiratory Therapy<br>Assistant Professor<br>B.S., California State Polytechnic University, Pomona<br>TEMBY, LEONARD E. (1977)<br>Fire Technology<br>Assistant Professor<br>Certificate in Fire Administration, USC<br>THOMAS, L. PATRICIA (1978)<br>Emergency Medical Services<br>Assistant Professor<br>B.A., M.A., University of Redlands<br>RNP (Registered Nurse Practitioner), University of California at San Diego School of Medicine<br>THOMERSON, C. BENSON (1969)<br>English<br>Associate Professor<br>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

## Associate Professor

B.S., Chiao-tung University
B.S., Hong Kong Baptist College
M.S., California State University, Los Angeles

WILDS, ANN PEHL (1981)
Agriculture

## Assistant Professor

B.S., M.S., California Polytechnic State University, San Luis Obispo
WILKERSON, RICHARD L. (1975) Learning Center/English/Psychology
Associate Professor
B.A., M.A., University of Redlands

WIRTA-KOSMATKA, ARNOLD L. (1978)<br>Assistant Professor<br>B.S., University of Redlands<br>WRIGHT, WILLIAM R. (1977)<br>Special Assignment<br>Assistant Professor<br>B.V.E., M.A., California State University, Los Angeles<br>WURMBRAND, MARC (1972)<br>Art<br>Associate Professor<br>B.F.A., Cooper Union<br>M.F.A., Yale University<br>YOWELL, DON A. (1972)<br>Dean, Student Personnel Services<br>B.S., M.A., California State University, Long Beach

# PROFESSORS EMERITI 

H.D. ANDERSON (1916-1978)

Foreign Language

ROGER C. ANTON (1946-1976)<br>President<br>Named Professor Emeritus (posthumously) by the Board of Trustees, June 3, 1977.

GEORGE ASHTON (1957-1978) History
JOSEPHINE E. BROHOLM (1917-1975) Speech

KENNETH L. GRUBB (1965-1982) History
HAROLD B. PIGOTT (1956-1975) English
V. DEAN STEWART (1950-1981)

Chemistry

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[^0]:    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.

[^1]:    246 AB Special Problems in Biology 1 Unit
    247 AB 2Units
    UC
    Prerequisite:Biology 120
    Laboratory: 3-6 hours per week
    Independent projects for selected students

[^2]:    090 Selected Topics in Emergency
    Medical Services 1/4-4 Units
    Prerequisite: None.
    Lecture: $1 / 4-4$ hours per week and/or
    Laboratory: $3 / 4-12$ hours per week and/or
    Clinic/Field/Preceptorship: $11 / 4-20$ hours per week

    Current information on selected topics for

[^3]:    236ABCD Selected Topics in Emergency
    Medical Services
    1 Unit

[^4]:    233 Advanced Guitar II
    2 Units
    UC*
    Prerequisite: Music 232
    Lecture: 1 hour per week and
    Laboratory: 2 hours per week
    Instruction in the style and literature of both

[^5]:    132 Advanced Dictation and
    Transcription 1-6 Units
    Prerequisite: OA 119 with a grade of "C" or better.
    Lecture: 1-5 hours per week and
    Laboratory: 2 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.

[^6]:    100 Introduction to Religious Studies
    3 Units
    UC
    Prerequisite: None.
    Lecture: 3 hours per week

