

Glendale  
Community  
College  
1977-78



# *acknowledgments*

*Catalog designed by students in the Technical Graphics Program under the direction of Samuel S. Anslyn, Associate Professor of Graphics.*

**Philip Dockter,**  
*Graphic Design*

**Susan Cisco,**  
*Calligraphy and  
cover photography and design*

**Robert Terpin,**  
*Production Design*

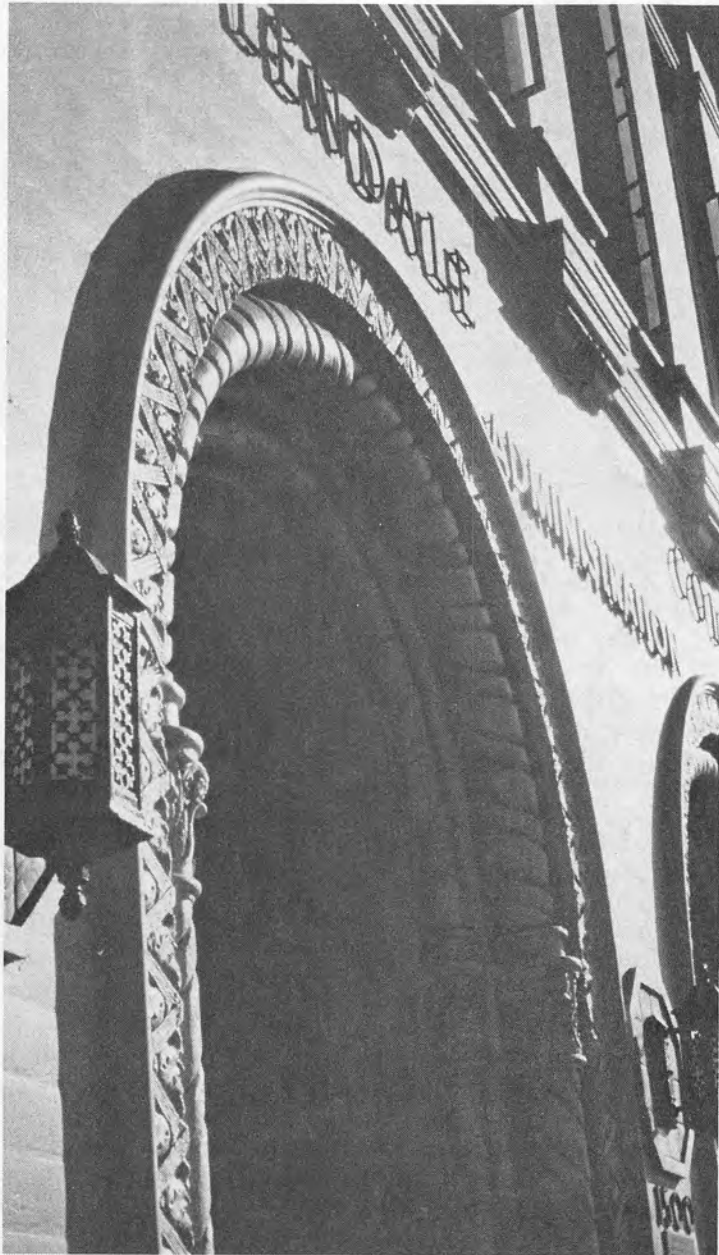
*Illustrations by Graphics Students*

*Photographic Sources:*  
**Robert Thomsen, Professor of Art**

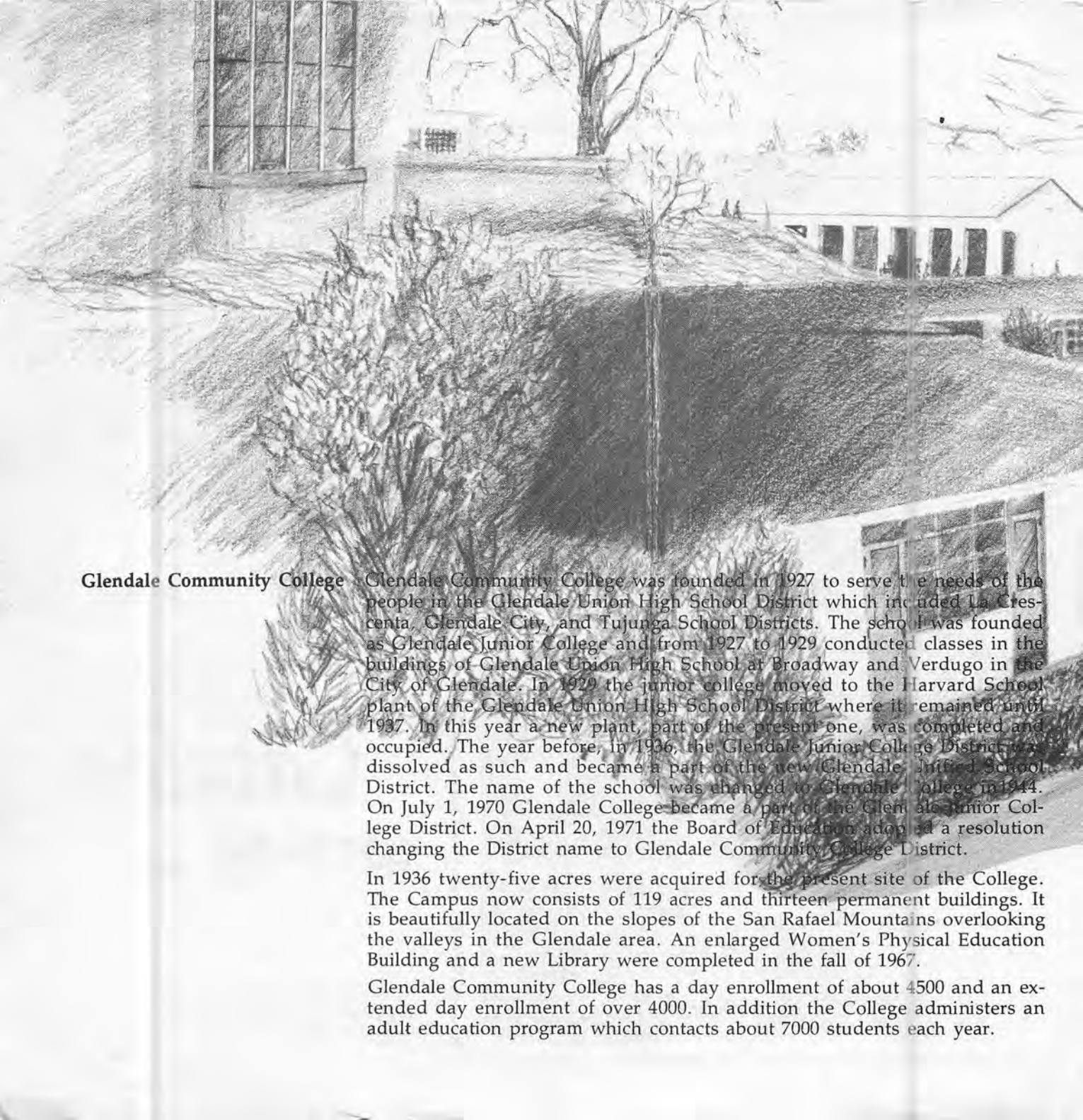
Glendale Community College  
Founded 1927  
A Public Community College offering  
instruction in the areas of General Education,  
Pre-Professional Training, Occupational,  
and Technical Education

# Catalog 1977-78

1500 N. VERDUGO ROAD  
GLENDALE, CALIFORNIA 91208  
(213) 240-1000





A black and white photograph of a building with a large window and a tree in the foreground. The building has a prominent window with a grid pattern. A large, leafy tree is in the foreground, partially obscuring the building. In the background, there are other buildings and trees under a clear sky.

## Glendale Community College

Glendale Community College was founded in 1927 to serve the needs of the people in the Glendale Union High School District which included La Crescenta, Glendale City, and Tujunga School Districts. The school was founded as Glendale Junior College and from 1927 to 1929 conducted classes in the buildings of Glendale Union High School at Broadway and Verdugo in the City of Glendale. In 1929 the junior college moved to the Harvard School plant of the Glendale Union High School District where it remained until 1937. In this year a new plant, part of the present one, was completed and occupied. The year before, in 1936, the Glendale Junior College District was dissolved as such and became a part of the new Glendale Unified School District. The name of the school was changed to Glendale College in 1944. On July 1, 1970 Glendale College became a part of the Glendale Junior College District. On April 20, 1971 the Board of Education adopted a resolution changing the District name to Glendale Community College District.

In 1936 twenty-five acres were acquired for the present site of the College. The Campus now consists of 119 acres and thirteen permanent buildings. It is beautifully located on the slopes of the San Rafael Mountains overlooking the valleys in the Glendale area. An enlarged Women's Physical Education Building and a new Library were completed in the fall of 1967.

Glendale Community College has a day enrollment of about 4500 and an extended day enrollment of over 4000. In addition the College administers an adult education program which contacts about 7000 students each year.



**Board of Education** Sheldon S. Baker  
Blanch M. Greenwood  
John C. Hedlund  
William B. Murphy  
Carl Raggio

**Superintendent** Burtis E. Taylor

**Glendale Community College  
Administration**

John A. Grande: *President-Assistant Superintendent*  
Ivan L. Jones: *Administrative Dean-Instruction*  
John A. Davitt: *Administrative Dean-Student Personnel*  
David C. Leek: *Administrative Dean-Continuing Education*  
Harold B. Cochrane: *Dean-Guidance and Counseling*  
Dwain O. Reinbolt: *Dean-Admissions and Records*  
J. Walter Smith: *Dean-Student Activities*  
Charles C. Wheelock: *Dean-Community Services and Summer Session*  
Griffin R. McKay: *Dean-Career Education*  
Patricia A. Lienhard: *Dean-Student Support Services*  
Harry L. Beck: *Director-Adult Education*  
William J. Strange: *Director of Library Services*  
Benice Z. Lindo: *Director-Learning Center/Tutorial Center Coordinator*  
Edward F. Tennen: *Director-Multi-Media Services*  
Mrs. Barbara N. McGuire: *Coordinator-Parent Education and Home Arts*

## 4 TABLE OF CONTENTS

---

Administration . . . . .	3
College Calendar . . . . .	5
General Information . . . . .	8
Educational Philosophy . . . . .	8
Accreditation, Advisory Committees . . . . .	11
Summer Term . . . . .	15
Transfer to Four-year Colleges and Universities . . . . .	19
Veteran Education . . . . .	19
Student Services . . . . .	21
Employment . . . . .	21
Scholarships . . . . .	22
Student Government and Activities . . . . .	29
Orientation of New Students . . . . .	30
Admission, Counseling and Registration . . . . .	32
Admission Requirements . . . . .	32
Residence Requirements . . . . .	34
Guidance and Counseling . . . . .	36
Eligibility for Courses . . . . .	37
Registration . . . . .	37
Scholastic Information and Regulations . . . . .	39
Unit Limitations, Scholarship Standards . . . . .	39
Grades, Grade Points, and Grade Point Average . . . . .	40
Attendance and Punctuality . . . . .	45
Withdrawal from Class or College . . . . .	45
Final Examinations . . . . .	46
Graduation Requirements . . . . .	47
Curriculums . . . . .	49
Certificate Programs . . . . .	50
Transfer Programs . . . . .	65
Course Descriptions . . . . .	103
General Education Requirements . . . . .	226
Faculty . . . . .	262
Index . . . . .	287

<b>1977</b>	
<b>May 20</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>June 11</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>June 14-16</b>	Summer Session Registration
<b>June 17</b>	End of Semester II
<b>June 20</b>	Summer Session Begins
<b>June 30</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>July 4</b>	Legal Holiday (Independence Day)
<b>July 22</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>August 20</b>	Summer session ends
<b>August 22</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>August 22—September 9</b>	Registration — Semester I
<b>September 5</b>	Legal Holiday (Labor Day)
<b>September 6</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>September 7</b>	Admission Applications must be on file in the Office of Admissions and Records for Semester I
<b>September 11</b>	Residence Determination Date — Semester I
<b>September 12</b>	Class Instruction begins for Semester I
<b>September 12-15</b>	Late Registration — Semester I
<b>September 15</b>	Last day to add classes without special permission
<b>October 1</b>	Last day for International Students to complete admission requirements for Semester II
<b>October 14</b>	Last day to drop 1st 8-week class without possible penalty
<b>October 21</b>	Last day to drop 1st 9-week class without possible penalty
<b>October 28</b>	Last day to drop 1st 8-week class
<b>October 31—November 3</b>	Registration for 2nd 8- and 9-week classes
<b>November 4</b>	Last day to drop 1st 9-week classes 1st 8-week classes end
<b>November 7</b>	2nd 8-week classes begin
<b>November 11</b>	Legal Holiday (Veterans' Day) 1st 9-week classes end
<b>November 14</b>	2nd 9-week classes begin Mid-semester grade deficiencies due

- November 23** Last day to drop a semester class without possible penalty (see Catalog statement on Withdrawal from Class or College)  
 Last day to apply to take a course on Credit-No Credit basis
- November 24-25** Thanksgiving Holidays
- December 9** Last day to drop 2nd 8-week classes without possible penalty
- December 19—January 3** Christmas vacation
- December 23** All College offices closed
- December 26** All College offices closed
- December 27** PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.\*
- 1978**
- January 2** Legal Holiday — All College offices closed
- January 6** PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.\*  
 Last day to drop 2nd 8-week class  
 Last day to drop 2nd 9-week class without possible penalty
- January 16—February 3** Registration for Semester II
- January 13** 2nd 8-week classes end
- January 18-31** Final Examinations for Semester I
- January 20** Last day to drop 2nd 9-week class
- January 23** PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.  
 (Campus Center)
- January 27** 2nd 9-week classes end
- January 31** End of Semester I
- February 1** Admission applications must be on file in the Office of Admissions and Records for Semester II
- February 5** Residence Determination Date — Semester II
- February 6** Class instruction begins for Semester II
- February 6-9** Late Registration — Semester II
- February 9** Last day to add classes without special permission
- February 13** Legal Holiday (Lincoln Day)
- February 20** Legal Holiday (Washington Day)
- March 1** Last day for International Students to complete admission requirements for Semester I



<b>March 10</b>	Last day to drop 1st 8-week class without possible penalty
<b>March 17</b>	Last day to drop 1st 9-week class without possible penalty
<b>March 20-24</b>	Spring Vacation
<b>March 31</b>	Last day to drop 1st 8-week class
<b>April 3-6</b>	Registration for 2nd 8- and 9-week class
<b>April 7</b>	Last day to drop 1st 9-week class
	1st 8-week classes end
<b>April 10</b>	2nd 8-week classes begin
<b>April 14</b>	1st 9-week classes end
<b>April 17</b>	2nd 9-week classes begin
	Mid-semester grade deficiencies due
<b>April 28</b>	Last day to drop a semester class without possible penalty (See Catalog statement on Withdrawal from Class or College).
<b>May 1</b>	Petitions for Graduation and/or Certificate due in Office of Admissions and Records
<b>May 12</b>	Last day to drop 2nd 8-week class without possible penalty
<b>May 13</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>May 26</b>	Last day to drop 2nd 8-week class
	Last day to drop 2nd 9-week class without possible penalty
<b>May 29</b>	Legal Holiday (Memorial Day)
<b>June 2</b>	2nd 8-week classes end
<b>June 7-16</b>	Final Examinations for Semester II
<b>June 9</b>	Last day to drop 2nd 9-week class
<b>June 11</b>	Baccalaureate and Commencement Exercises
<b>June 16</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
	End of Semester II
	2nd 9-week classes end
<b>June 29</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*
<b>July 21</b>	PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. — 11:30 a.m.*

\*All Pre-registration Examinations will be held in the Auditorium Building unless otherwise noted.

**Educational Philosophy** As a public institution founded to serve the community in a variety of ways, Glendale Community College is dedicated to the education of its students as productive individuals and responsible citizens in a changing world. It extends a range of educational opportunities to all who can profit from its offerings. Its students, teachers, and administrators join in the task of developing and improving curricula which will best meet the personal, academic, and vocational needs of each individual. It furnishes both general and specialized education designed to help each student reach the maximum development of his or her full potential. The College subscribes to the principle that each person has worth, integrity, and dignity and that each can grow in the attainment of intellectual curiosity, creativity, appreciations, and moral and spiritual values. Students have the opportunity to explore the humanities, the pure sciences and technology, and various career interests. This philosophy is intrinsic to the development of the purposes and programs of Glendale Community College.

Statements of the philosophy of Glendale Community College are disseminated through many channels of publicity, including the following:

- a. The College Catalog and Semester Schedule of Classes
- b. The Faculty Manual
- c. Counselors who visit area high schools
- d. Advisory committees that meet to assist in planning for vocational offerings
- e. Presentation of purposes at meetings of the Board of Education, civic groups, professional organizations, service clubs, chambers of commerce, and other appropriate groups
- f. Activities of the Placement Officer included orientation of business and industrial personnel to the functions of the college
- g. Discussion with students in group guidance classes and in individual counseling sessions about the functions and purposes of community college education
- h. Talks to the Glendale Community College Patrons Club
- i. Special programs for community groups
- j. Personnel involved in the direction of the New Horizons program engage in an extensive orientation program for student groups and for groups within the community

**Objective and Functions** Pursuant to its stated philosophy, Glendale Community College has one objective: education. Four primary functions support this objective:

- a. *Education for meeting the lower division requirements of a university or a four-year college.* The college offers many courses which are equivalent to those available in the freshman and sophomore years at the University of California, the California State Universities and Colleges, and other

colleges and universities in the United States. A student with a satisfactory high school and community college record will receive full credit for all college and university level work done at Glendale Community College provided that the work meets the specific requirements of the college or university to which the student transfers.

- b. *Education beyond the high school level for vocational competence.* Training programs are offered for many occupations in business and industry. Courses offered in these programs serve three groups of students: those training for entry-level positions; those preparing for advancement on the job; and those seeking to improve skills to meet new job requirements. Thus, students are offered a balance of technical and general education.
- c. *Education beyond the secondary level for personal improvement.* Recognizing the needs of post-secondary students for education which may lead neither to education in a higher institution nor to vocational preparation, Glendale Community College offers a diversity of courses in the performing arts, fine arts, applied arts, social sciences, humanities, and mathematics and the sciences, which satisfy intellectual curiosity and provide knowledge about and appreciation for the cultural heritage.
- d. *Education below the lower division level.* A comprehensive program is offered in the College's Adult Education Division, which includes basic education, courses leading to the high school diploma, citizenship, English as a second language, career and vocational classes, and courses that satisfy the many special interest needs of the community.

### **Programs and Services**

A variety of programs and services implements and supports the objective and functions stated above.

- a. *Guidance and counseling.* Guidance and counseling services assist students in becoming personally integrated and self-reliant. To this end, counselors encourage students to explore their own needs and the satisfactions of those needs which may accrue from their educational experiences and their choices of life style. They provide a climate in which students make thoughtful, independent, decisions for educational and vocational goals. Working through individual interviews with students, small and large groups, and college orientation classes, they help students to become aware of their capabilities and to plan appropriately. They are involved, also, in such other support services as administration of the Extended Opportunity Programs and Services, financial aids, job placement, a broad testing program, tutoring, and correction of learning deficiencies. Glendale Community College offers seminars for the mature and older adults and conferences on the role of women in society.
- b. *Health Services.* First Aid emergency care, health appraisal and counseling, referral services, and assistance with insurance claims are provided by the Health Center.
- c. *Basic education.* Students with specific learning problems or with grade or



subject deficiencies in their high school record may make up such deficiencies and enter into a program leading to an A.A. degree and, if desired, to upper division standing at a four-year institution.

- d. *Refresher education.* Any member of the community has the opportunity to refresh, as well as, to update his or her knowledge in classes offered at Glendale Community College.
- e. *Continuing Education.* Persons wishing late afternoon, evening, or Saturday classes may enroll in the Extended Day program. Extended Day courses parallel and expand the day-time offerings. In addition, non-credit classes, short-term classes, and lecture series, designed to meet the interests and needs of adults in the community, are offered both during the day and in the evening under the Adult Education program.
- f. *General education for all members of the community.* The College offers wide and varied curriculum designed to promote the following objectives:
  - 1. Development of communication and computational skills which form a base for training in critical thinking as exemplified in drawing sound conclusions from premises, making relevant judgments, and discriminating among values.
  - 2. Knowledge of the cultural heritage as the accumulated record of the development of mankind.
  - 3. Appreciation for aesthetic expression, excellence, and creativity as major values.
  - 4. Foundation in knowledge, attitudes, and skills necessary for occupational employment.
  - 5. Cultivation of habits which are essential to physical and emotional growth, citizenship, and societal responsibilities.
  - 6. Development of an awareness of the influence of such environmental problems as population growth, land-use, and pollution on the quality of life through field observation and other experiences.
- g. *Community services.*
- h. *Education for creative use of leisure time.* The college encourages students to develop skills and an appreciation for creative use of leisure time.
- i. *Preparation for the future.* The college urges students to become more sensitive to world crises created by a burgeoning population and by the increasing demands of people and nations upon resources. Students learn to approach these crises through the scientific method of the natural sciences and through the combined methods of the humanities and social sciences and co-curricular programs. It is important for students to realize that the structure of human society is changing and that new and different technologies will affect the transition.

- j. *Services to meet the unique needs of ethnic-minority students.* The college is committed to cultural diversity within its student body achieved by recruitment of resident Americans of various national origins and by the acceptance of a significant number of foreign-visa students. Meeting the needs of these students realistically is an important function of the college.

**Accreditation** Glendale Community College is fully accredited by the Western Association of Schools and Colleges, and approved under the regulations of the California State Department of Education and the California Community Colleges.

**Advisory Committees** The Advisory Committee procedure is widely used as a method of bringing members of the College and community into a cooperative working situation so that the offerings of the College will meet needs of the community as seen by people charged with specific community responsibilities.

**Affirmative Action** Glendale Community College is an Affirmative Action employer with a commitment to provide equal opportunity for all without regard to race, religion, national origin, sex, or age.

**Army ROTC** **California State University, Long Beach**  
**University of California, Los Angeles**

The Army Reserve Officers Training Corps (ROTC) program is available to qualified Glendale Community College students through the UCLA program. Classes are conducted at UCLA and Long Beach.

Four-, three-, and two-year programs leading to a commission as a Second Lieutenant in the U.S. Army Reserve or Regular Army are offered. Participants must be physically qualified full-time students at the undergraduate or graduate level. Courses consist of two academic hours once a week, plus a leadership laboratory one Saturday per month. Academic credits earned in the program may normally be counted as electives within degree requirements. All students enrolled in the final two years of the program receive an allowance of \$100 per month during the school year.

The FOUR-YEAR PROGRAM consists of the Basic and Advanced Courses. The Basic Course (MS I and MS II) is normally taken in the freshman and sophomore years, with no military obligation. The Advanced Course (MS III and MS IV) covers the final two years, and includes a summer Advanced Camp with pay.

The THREE-YEAR PROGRAM enables a student with three academic years remaining in college to complete the program by taking two Military Science courses (half courses) per term the first year plus a 1-hour weekly laboratory.

The TWO-YEAR PROGRAM (Advanced Course only) is available to students who have two years remaining toward a Bachelor or graduate degree.

The student attends a six-week Basic Camp (with pay) the summer before enrolling in the Advanced Course, with application by March of that year. Camp attendees are under no obligation; and may compete for two-year scholarships during Basic Camp.

VETERANS may qualify to enter the Advanced Course without Basic Camp. They are eligible to receive the \$100 per month allowance as well as GI Bill benefits to which they are entitled.

The ADVANCED CAMP is prerequisite to commissioning; conducted at Fort Lewis, Washington, normally between the first and second years of the Advanced Course. The Camp is a six-week summer practicum with emphasis on leadership development. The cadet is paid approximately \$500, plus transportation costs.

SCHOLARSHIPS are available competitively, in addition to the monthly allowance for all Advanced Course students. Scholarship recipients receive full tuition, required fees and books, plus the \$100 monthly allowance for the term of the scholarship. High School seniors apply by December 1 of the year preceding college entrance for 4-year scholarships; winners must attend an institution offering the four-year Army ROTC program. Three-, two-, and one-year scholarships are available to students enrolled in Army Senior ROTC; students cross enrolled while attending Glendale Community College are eligible.

*MS I* (First year): The U.S. Defense Establishment; Theory of Warfare. Evolution of Defense Department and the Military Services with emphasis on U.S. Army; military institutions, other elements of national policy/strategy. Theory, nature, causes and elements of warfare; evolution of weapons/tactics.

*MS II* (Second year): U.S. Military History. In depth study of U.S. Military History from 1755 to present. Emphasis on leaders, actions, opposing strategies, and related considerations.

*MS III* (Third year): Psychology of Leadership; Psychology of Learning Applied to Teaching. Concepts in behavioral sciences for leadership/management; problems in directing and controlling. Learning theories, application of learning theories to teaching, lesson planning, testing, evaluation, student teaching.

*MS IV* (Fourth year): Decision-making; Military Legal Systems; Military-societal Relations. Decision-making process, optimizing decisions, information/systems management, operations research. Military law and legal systems. U.S. Army as professional organization, relationship to society, professional ethics, social problems.

For further information, contact the Counseling Office, or the Department of Military Science, UCLA, Los Angeles, CA 90024; phone (213) 825-7384 or 831-7463.

**Air Force ROTC University of Southern California**

Through arrangements with the University of Southern California both the



two- and four-year Air Force ROTC programs and two-, three-, and four-year scholarships are available to qualified men and women attending Glendale Community College. Both aptitude and physical examinations are required.

Scholarships cover costs of enrollment, books, and a monthly subsistence allowance. The subsistence allowance is paid also to non-scholarship cadets enrolled in the two-year program and in the last two years of the four-year program.

Freshman men and women may enter the four-year program by enrolling in the first year Aerospace Studies Course (AS 100) at USC. Students desiring the two-year program should apply early in the fall of the year prior to the year in which they wish to enter.

Male students who are physically qualified and plan to enter pilot training receive 25 hours of free flight instruction during their last year in the program. Academic credit is granted for AFROTC courses in accordance with institutional policies governing transfer credit. The programs lead to commissions as a second lieutenant in the United States Air Force Reserve.

Interested students should call the Air Force ROTC office at USC, (213) 746-2670.

### **Continuing Education**

The Continuing Education services of Glendale Community College include two programs primarily designed for adults in the community: Extended Day and Adult Education. Late afternoon and evening Extended Day college credit classes are provided by the Extended Day Division of Glendale Community College. Many of these courses parallel day courses in prerequisites, content, time devoted to preparation of assignments, and examinations. In addition, there are programs in such areas as administration of justice, supervision, and real estate. The regular facilities of the College, including the library, bookstore, auditorium, laboratories, and shops, are available to Extended Day students. Attendance, registration and withdrawal rules, probation and dismissal regulations, scholarship standards, and requirements for graduation with the Associate in Arts Degree are the same as for the day college.

The teaching staff is made up of persons highly qualified to instruct these classes. Many of the Extended Day faculty also teach on the regular day staff of Glendale Community College as well as other colleges. Business, professional, and industrial persons of the community who have obtained proper teaching credentials also give the benefit of their knowledge and skills to the students.

Specialized guidance and counseling, in addition to advisement through instructional contacts in classes, are available through the Guidance and Counseling Office evenings. Counseling appointments may be arranged by telephone, 240-1000, extension 304.

Any adult who complies with established registration procedures may enroll in Extended Day classes. Placement Examinations are required for enroll-

ment in certain courses in English, social sciences, and speech. Pre-registration Examinations are given by the College in April, May, June, July, August, September, December, and January. Prior to the opening of each semester these will be given in the evening on dates to be announced. An adult who is not a high school graduate may petition for transfer of college credits to fulfill high school graduation requirements.

No tuition is charged at Glendale Community College for students whose legal residence is in California; however, students pay for books and personal supplies. A non-resident tuition fee is charged students whose legal residence is outside California. A tuition fee is paid by adults taking non-credit courses not exempted by State regulations.

**A Separate Program of Non-Credit Adult Education Courses**

A Separate Program of Non-credit Adult Education Courses also provides educational opportunities for those seeking personal and occupational improvements. Adult non-credit courses include business and distributive education, clothing, pre-school parent education, English, naturalization, basic education, history, government, Spanish, German, biology, mathematics, music, parent education, and physical science. Other courses may be developed to meet the special needs of those desiring general interest studies. Classes are scheduled at various locations throughout the school district.

Included in its program is the opportunity to earn a high school diploma. The minimum requirements for a high school diploma from the Glendale Unified School District (grades 9-12) are as follows:

English (9, 10, 11) .....	(30 sem. hrs.)	3 cr.
Mathematics (9 or higher) .....	(10 sem. hrs.)	1 cr.
Science (10 or higher) .....	(10 sem. hrs.)	1 cr.
American History (11) .....	(10 sem hrs.)	1 cr.
American Government (12) .....	(5 sem hrs.)	½ cr.
Elective (including First Aid and Driver Education) .....	(95 sem. hrs.)	9½ cr.
TOTAL .....	(160 sem. hrs.)	16 cr.

A minimum of 1½ credits (15 sem. hrs.) must be completed in residence, at least ½ credit (5 sem. hrs.) of which shall be completed during the semester in which the diploma is issued. Courses completed in the high schools of Glendale Unified School District and courses completed at Glendale Community College may be counted as courses completed in residence.

**Further Sources of High School Credits**

(1) High School credits, applicable toward a diploma of high school graduation, may be earned by completing courses offered in the Glendale Adult Education program. High school elective credits may be earned by completing courses offered by the Adult Education Department of the Glendale Community College District; however, students who desire such credit should consult with an evening adult counselor to be sure that such credits will satisfy graduation requirements and must make this fact known to the instructor at the time of enrollment. Where there is no designation of credit allowance, credit may be earned at the rate of ½ credit (5 sem. hrs.) for a class that meets once a week, or 1 credit (10 sem. hrs.) for a class that meets twice per week.

(2) Credits toward a diploma of high school graduation may be earned in other accredited secondary schools and transferred to the Glendale Adult Education Division. No credit will be allowed for correspondence or extension courses where the examinations have not been monitored or proctored by acceptable school officials or teachers.

(3) Credits may be granted for work achievement having educational value provided the individual has been employed for a year or longer by the same employer in an activity which could be considered equivalent to, or parallel to, some high school subject; and original letters from the employer are submitted verifying the dates and length of employment, detailing the nature of the work performed, and rating the quality of the work completed. Not more than four credits (40 sem. hrs.) of work achievement credit may be counted toward high school graduation.

(4) Credits may be granted for regular training courses completed at a military base during a term of military service, based on the recommendations of the American Council on Education, and for approved courses completed with the United States Armed Forces Institute.

(5) Credits earned at Glendale Community College or at any other accredited college may be converted into high school credits by petition at the rate of three college units for one high school credit (10 sem. hrs.).

(6) Credits may be granted according to the results of the General Educational Development Tests (G.E.D.) taken by those who qualify. See special statement below. Neither college nor high school courses that have a content the same as, or are of a lower level than, courses already taken and passed in the same subject area may be taken for high school credit. If there is any question regarding the acceptability of a course, the student is to confer with a counselor or the Dean of Adult Education.

High School credits may not be earned through repetition of a subject for which credit has been granted previously.

#### **G.E.D. Testing**

Adults, 18 years of age or older, may register for the General Educational Development Test in the Adult Education Office at Glendale High School. The G.E.D. Test is designed to measure the equivalence of educational achievement in a person and favorable results reduce considerably the number of courses required for a high school diploma. The Test is given by appointment after registration has been completed at the Adult Education Office, Room B-117, Glendale High School, from 9 a.m. to 9 p.m. Monday through Thursday. Further information may be obtained by calling 243-3184 or 240-1000, ext. 261.

#### **Summer Term**

The nine-week summer term will begin June 20, 1977 and end August 20, 1977. A six-week post session will begin on June 20, 1977 and end on July 29, 1977. A three-week session will begin on August 1, 1977 and end on August 20, 1977. Courses will be offered in all fields in which there is sufficient demand. Summer term circulars may be requested by telephone (240-1000).

#### **Handicapped Students**

Students who have a disability, handicap, or some health impairment which may interfere with their scholastic attainment are eligible for assistance or



special services through the "enabler" for students with special needs, a faculty coordinator-counselor. Such eligible students include those who, because of being hard of hearing, deaf, speech impaired, blind, visually handicapped, seriously emotionally disturbed, crippled, or otherwise health impaired, or mentally retarded, cannot succeed in college courses without some assistance or special services.

The kind of assistance or services that may be provided an eligible student is indicated by each such student's individual need. Provision may be made for tutors, attendants, readers, interpreters, notetakers, etc.; also for books in Braille, large print, or converted to audio tape; and for financial aids. The aim is to provide the assistance and special services necessary to enable every health impaired student to succeed in each course attempted.

Many classes are made accessible to wheelchair-bound and others by ramps. Other adaptations have been provided for the convenience of disabled persons.

Numerous items of equipment and educational materials are available to students with special needs, including: Braille dictionary, large-print dictionary, Pelco electronic TV magnifier, vernier magnifier, IBM electric Braille typewriter, standard IBM electric typewriter, Brailier, variable-speed tape recorder, talking-book machine, high-intensity lamp, slate and stylus, a highpowered battery-operated commuter (wheelchair), etc.

The "enabler" for students with special needs also serves as liaison with the State of California Department of Rehabilitation. The Department offers various assistance and services to prepare handicapped persons to become employable. Included are vocational counseling, assistance with payment for books, supplies, tuition, fees, etc; and aid in obtaining employment. In some circumstances, students may also receive assistance with medical needs, transportation, and incidental expenses.

An initial appointment at the Department can be made for a student by the faculty "enabler," or the student may communicate directly to the Department of Rehabilitation, 3452 East Foothill Boulevard, Pasadena, California 91106, telephone 793-0651, or to the branch office, Department of Rehabilitation, 500 Olive Avenue, Room 340, Burbank, California 91501, telephone 843-4810.

Every student who has a disability or health impairment of any kind which may interfere with scholastic attainment should communicate with the "enabler" immediately at the time of first making application for admission to the College. Arrangements for needed special services often must be initiated well in advance of registration for classes. Telephone the College at 240-1000 for referral to the "enabler."

### **Información En Español**

El Colegio de la Comunidad de Glendale es una institución pública de enseñanza post-secundaria que ofrece varios tipos de cursos a los ciudadanos de la comunidad: los dos primeros años de universidad; certificados ocupacionales en ciertas materias; cursos para obtener un diploma

de A.A., y cursos para completar los requerimientos para un diploma de high school. También ofrece cursos a través del Departamento de Educación Adulta en varios lugares de la comunidad, tales como Educación para los Padres, Inglés Como Segunda Lengua y muchos otros cursos de interés general.

Para ser admitidos los estudiantes deben de vivir dentro del área del Colegio y desear continuar su educación. La aplicación necesaria se puede hacer en las oficinas administrativas del Colegio de 8 a.m. a las 9 p.m. No hay que pagar cuota alguna con la excepción de libros y seguro de accidente, este último de solo \$3 semestrales. Con la excepción de las clases de Español, todas las clases son en Inglés; consecuentemente si el Inglés del estudiante no esta a cierto nivel, clases para aprender Inglés deben de ser elegidas al principio de los estudios.

El Colegio también ofrece ayuda en varias areas tales como: educacion autudiantes que necesiten esa ayuda para continuar sus estudios. En todo caso, aplicaciones para esos programas se deben de hacer una vez que se haya registrado en el Colegio. Becas, préstamos, trabajo-estudios otras formas de ayuda serán combinadas para ayudar a aquellos que demuestren necesidad económica y capacidad para estudios escolares.

El Colegio también ofrece ayuda en virias areas tales como: educacion autoprogramade; cursos cortos para refrescar conocimientos de secretaria; ayuda individual a traves de tutores, consejo educacional y personal en Español, consejo en grupo en Español, Centro para Mujeres con personal de habla Española. También El Colegio también ofrece cursos en el arte e historia de America Latina, asi como cursos en Historia del Mexico-Americano Estudios Chicanos Historia de California y seis cursos de Español. Un team de soccer representa al Colegio en la a liga estatal.

Le invitamos a que nos visite o escriba al Glendale Community College, 1500 North Verdugo Road, Glendale, California 91208. o lláme at teléfono 240-1000. Para información mas especifica sobre los ofrecimientos del Colegio sirvase leer el resto del catálogo.

### **International Students**

Glendale Community College welcomes students from countries all over the world who desire to study in the United States. At any one time there are approximately 350 International Students in attendance at Glendale Community College representing approximately 50 foreign countries. International Students who desire to enter Glendale Community College may receive application materials from the Office of Admissions and Records. In order to be admitted to Glendale Community College, International Students must submit copies of all records of previous schools translated officially into English, submit results of the TOEFL test, obtain a United States citizen living in the Los Angeles area who will act as the student's sponsor, and complete certain health requirements. In addition, all International Students seeking admission must have on deposit one semester's tuition. They should check carefully the deadline dates as published in the College Catalog. It should be noted that all requirements must be completed before a decision

is made as to acceptance. Those students not accepted will receive a refund of their tuition deposit. Selection of International Students is based upon previous school records, TOEFL test scores, and the desire to have as many nationalities represented in the student body as possible. Special academic programs for International Students are available and a counselor with responsibility for International Students is also available.

**Library** The Glendale Community College Library is housed in a modern, air-conditioned building near the center of the Campus. It is planned to meet the curricular needs of students and to provide attractive and functional facilities.

Its collection includes more than 55,000 volumes as well as journals on microfilm and over 400 current periodical titles.

Students have direct access to the book collection located on both floors in three major reading rooms with many individual study stations. An outdoor reading patio provides an informal study area with a scenic view of the mountains and valley in the distance.

On the main floor, in addition to part of the general circulating collection, are the card catalogs, conference rooms, a map collection, a typing room with typewriters, a photo-duplicator, microfilm, and microfiche readers. Preparation areas for learning materials are in the back of the building.

On the second floor is another part of the general circulating collection: the reference collection, oversized book collection, reserve collection, periodicals collection, pamphlet collection, and over 30 listening booths equipped with stereophonic earphones.

The Library Multi-Media Department consists of a central audio system with individual student carrels where students may listen to audio recordings on tape and phono-records. Also available is a wireless audio cassette system facility. A motion picture viewing system enables students to view 16 mm films while listening through headsets without disturbing nearby readers in the library. The system also allows the instructor to speak to the students through the headsets. Educational television programs can also be viewed in the Multi-Media Center. Audio cassette recordings are shelved with the books in book-like containers and can be circulated in the same manner as books.

Through the use of this Library Multi-Media Center the student has access to the ideas of the world's greatest teachers, authorities, experts and entertainers and to some of the best music ever recorded.

Students are invited to visit the Library and to acquaint themselves with its many resources and services. Professional librarians are on duty for consultation regarding location and use of learning materials and for help in many other ways. A library handbook is available free to students, faculty, and other library users. It describes library services, facilities, and staff and includes a detailed floorplan of the library building.



Library hours are from 7:30 a.m. to 10:00 p.m. Mondays through Thursdays, from 7:30 a.m. to 5:00 p.m. on Fridays, from 12:30 p.m. to 4:30 p.m. on Saturdays, and from 1:00 p.m. to 5:00 p.m. on Sundays.

**New Horizons Program** The New Horizons Program for mature learners has a major goal of providing any person the opportunity to expand views and increase personal, academic and vocational self-fulfillment in an educational environment which is both flexible and accessible. The development of the New Horizons Program has been extended to include special college credit seminars as offered by the counselors. The seminars consist of vocational and educational exploration and decision making, personal development, study skills, and individual and group counseling concerning the problems of family responsibility, time scheduling and academic pressures of those who have recently returned to college.

**New Horizons Resource Center** The New Horizons Resource Center is located in the Campus Center, Room 108, and is open to all students at Glendale Community College as well as all interested people in the community. It is staffed by specially-trained peer counselors. It is an informal spot for everyone to get together for information and friendship.

**Title IX** The Glendale Community College District is in compliance with Title IX of the Education Amendments of 1972.

**Transfers to Four-Year Colleges and Universities** A student may take a program at Glendale Community College which will qualify him for junior standing in most of the four-year colleges and universities of the United States. The requirements of colleges vary so greatly that it is not possible to prescribe a program of work which will apply to all of them. \*Two procedures are recommended:

1. A student should consult the catalog of the college or university to which he intends to transfer. He should choose his courses at Glendale Community College in accordance with the lower division (Freshman and Sophomore) requirements of the college or university of his choice as outlined in its catalog. See General Education Requirements for graduation from colleges and universities in this Catalog page 226.
2. In addition, it is advisable for the student to submit his high school transcript plus his proposed lower division program to the registrar of the chosen college or university for tentative approval.

Catalogs of schools, colleges and universities are on file in the Guidance and Counseling Offices, the Office of Admissions and Records, and the Library for reference purposes. Students are urged to obtain catalogs directly from the college or university by writing the registrar of the institution in which the individual is interested.

**Veteran Education** Veterans are invited to avail themselves of the guidance services and the educational training offered by Glendale Community College. Returned servicemen are helped and encouraged to secure the training necessary to

\*See page 226 for this catalog.

realize their vocational aims. In order that this may be achieved, Glendale Community College cooperates with the Veterans Administration and with the California Department of Veterans Affairs.

The Federal educational assistance allowance payable to Veterans is as follows:

Full time—12 units or more

$\frac{3}{4}$  time—9-11 $\frac{1}{2}$  units

$\frac{1}{2}$  time—6-8 $\frac{1}{2}$  units

Continuing and returning students who were previously enrolled for Veterans benefits must submit to the Admissions Office each semester a Request to be Entered Under Training form if they wish to continue to receive benefits.

New students desiring entitlements must file an Application for Program of Education or Training (VA Form 22-1990). These applications may be obtained from the Veterans Office at Glendale Community College.

The Veterans Administration indicates the length of veteran entitlement to be 36 months with a possibility of an extension of nine months. It is suggested that veterans complete 15 units a semester if they are to complete their objective in the 36 month maximum.

It is the veteran's responsibility to notify the college veterans clerk in the Admissions Office, and the Veteran's Administration of any change of program which would affect his subsistence. Such changes must be reported promptly.

### **Cooperative Education**

Glendale Community College, under a State-approved plan, cooperates with local students, businesses and industries in the Cooperative Education-Work Experience program. Each community college in California has the responsibility within the limits of their resources to maximize and utilize all possible educational experiences which are advantageous to the students. One method is through Cooperative Education-Work Experience program. Through the cooperation of business, industry, and government, students earn credit for supervised off-campus employment. Occupational Cooperative Education-Work Experience must be directly related to the student's two year career college program. Coordinated classroom instruction is included to help the student understand and appreciate the problems of business and industry. The student must maintain an enrollment of no less than eight units including Cooperative Education.

- Campus Center** These facilities provide offices and conference rooms for the Associated Students as well as a place where student clubs and other organizations may meet for social and business functions. Arrangements for the Campus Center are to be made with the Dean of Community Services in Administration Building, Room 124.
- Employment** The College maintains an employment service to assist current students and former students in securing part-time and full-time employment. Applications should be made in person at the Placement Office in the Student Services Building.
- Referrals for placement are made on the basis of the student's ability to fulfill the requirements of the positions, experience, training, and where desirable, approval of faculty members.
- Employment opportunities exist on the College campus. Glendale Community College participates in the Federal College Work Study Program, as well as having a program totally funded by the College. Positions such as clerical aide, library aide, and lab technician are available. Information concerning student employment on the College campus is available in the Placement Office, and/or the Financial Aid Office.
- Since it is not always possible to secure employment immediately, the student who plans to be self-supporting should not begin his college course without sufficient funds to cover the major expenses of at least the first semester.
- Basic Educational Opportunity Grant Program** Glendale Community College participates in the Basic Educational Opportunity Grant Program which provides grants of up to \$1,400 per year, depending upon the financial ability of the family or individual to contribute, to the cost of higher education. To receive the grant, students must enroll in a minimum of six units. Applications are available in the Financial Aid Office.
- Supplemental Educational Opportunity Grant** Glendale Community College participates in the Supplemental Educational Opportunity Grant Program funded by the Federal Government under the Higher Education Act. Grants are available up to \$1,000 per year for students who qualify under the provisions of the act. Students who receive such grants are required to earn an equal amount under the College Work Study Program. Interested students may file applications in the Financial Aid Office.
- Health Center** Through payment of the Health Services Fee, a College Health Center is operated from 8:00 a.m. to 9:45 p.m. Monday through Thursday, 8:00 a.m. to 4:00 p.m. Friday, 9:00 a.m. to 12 noon Saturday. The Health Center is located in the Women's Gym, Room 103.
- This Center is staffed by a certificated registered nurse and two health clerks. The Center provides first aid, health counseling and referral, health appraisal including hearing, vision and blood pressure tests, and assistance with accident and medical insurance.

**Housing** Glendale Community College has no housing facilities for its students, most of whom reside with members of their immediate family or relatives. A limited number of housing accommodations are available in private homes. It is possible for some students to work for room and/or board.

Any student interested in obtaining a place to live should review the listing in the Office of the Dean of Student Personnel Services, Administration Building, Room 107.

**Loans** A loan fund for worthy and needy students is administered by the Dean of Student Personnel Services. Students in need of an emergency loan may apply for such loans in this office. These loans usually do not exceed \$25.

**Scholarships** Any student who has completed 12 units of college work may file an application for a scholarship in the Office of the Dean of Student Personnel Services, Administration Building, Room 107. Selection is made by the Glendale Community College Scholarship Committee or the donors on the basis of academic achievement, financial need, integrity of character, chances of success, and fulfillment of the particular criteria stipulated by the donors.

**Aesculapian Scholarship** A \$500 scholarship is awarded annually to a student transferring to an upper division institution and planning a career in a medical or para-medical field. This scholarship is donated by a Glendale physician.

**Aleta Rutter Memorial Scholarship** One scholarship for a student majoring in either Art or Art History. The winner is nominated by the faculty of these departments. Funds for this scholarship have been donated in memory of Aleta Rutter, a former student at Glendale Community College.

**Alpha Gamma Sigma Scholarship** The Glendale Community College Chapter of Alpha Gamma Sigma State Scholarship Society awards scholarships of \$50 each semester to one or more of its current members. The candidate must have a minimum grade point average of 3.4 and must have displayed an active interest in club activities.

**American Association of Retired Persons, Foothill Chapter No. 497** An award presented to a senior citizen, who has returned to College, and nominated by the New Horizons Advisory Committee.

**American Association of University Women Scholarship** A scholarship of \$300 is awarded by the Glendale Branch to an outstanding sophomore woman who plans to enter a four-year college or university. Academic achievement is given first consideration but leadership, participation in school activities, a well-adjusted personality, and financial need are also considered.

**American Begonia Society, Glendale Branch, Scholarship, Glendale Chapter** Two scholarships are awarded to outstanding Botany students; one each semester, as selected by students majoring in Botany.

**American Business Women's Association, Verdugo-Glen Chapter** A number of scholarships are awarded each year to help women students defray their expenses while attending Glendale Community College.



- Assistance League of Glendale Scholarship** The Assistance League of Glendale awards \$100 each to three continuing students for expenses while attending College.
- Associated Student Body Scholarships** Twenty \$50 awards to students continuing at Glendale Community College and selected by the Associated Student Body.
- Associated Women Students Scholarship** Each year the Associated Women Students make awards to two women students who have been members of the board for a minimum of two semesters, have good scholastic records, and who plan to continue their education at Glendale Community College or at an institution of higher learning.
- Bank of America** The Bank of America awards four scholarships to outstanding students in the fields of Business, Technical-Vocational, Social Science-Humanities, and Science-Engineering. Glendale Community College winners are eligible to compete for statewide awards.
- Bonita J. Dodds Scholarship** One scholarship award to a continuing student at Glendale Community College in honor of Mrs. Bonita J. Dodds, former secretary to Dean of Student Personnel Services, will be donated by the Patrons Club in appreciation for her work with the Scholarship Program.
- Building Contractors' Association of Glendale** A \$250 scholarship is awarded to a student continuing his education at Glendale Community College majoring in the field of Architecture.
- Chevy Chase Estates Garden Club** A \$300 scholarship is awarded to a student continuing his/her education at Glendale Community College and planning to major in Botany, Ornamental Horticulture, or Landscape Architecture.
- Delta Kappa Gamma, Epsilon Epsilon Chapter** One \$100 scholarship awarded biennially for a woman transferring to a four-year college or university, with teaching as her goal.
- Delta Kappa Gamma, Xi Chapter** One \$200 scholarship for a woman transferring to a four-year college or university and planning for a career in the field of education.
- Derrill Place Memorial Scholarship** One \$50 scholarship is awarded to the outstanding graduating student majoring in journalism. The award is to be utilized at a four-year college or university. Funds for this scholarship have been donated in memory of Mr. Derrill Place, former instructor in journalism at Glendale Community College.
- Edvard Greig Norwegian Scholarship** Six \$50 scholarships are awarded each year to help defray Glendale Community College expenses.
- Eleanor Kentner Kohler Memorial Scholarship** An award of \$250 is made annually to a student having a special talent in art or poetry to help defray expenses while a student at Glendale Community College. Selection is made by the Scholarship Committee from recommendations submitted by the fine arts and language divisions.
- Elizabeth Rowley Memorial Scholarship** An award of \$250 is presented each year to a woman student planning to transfer to a four-year college or university with a Glendale Community

- College grade point average of at least a 3.0. This award is made from funds contributed by the Glendale Community College faculty to a memorial fund in honor of Elizabeth Rowley, a former Dean of Women at Glendale Community College. Selection is made by the Scholarship Committee.
- Ella Woodrow Scholarship** A scholarship is awarded annually in memory of Mrs. Ella Woodrow, former fashion design instructor at Glendale Community College. The scholarship is to help defray expenses for a student continuing his/her education at Glendale Community College in the field of Fashion Design.
- Elsie Bishop Scholarship** The Glendale Community College Patrons Club awards a \$100 scholarship to a woman graduate selected as the outstanding graduating woman by the graduating class. This scholarship is in honor of Mrs. Elsie Bishop, former Dean of Students at Glendale Community College.
- Ernest Jaramillo Memorial Scholarship** An award of \$300 to a graduate of Holy Family or Bellarmine-Jefferson High Schools enrolled at Glendale Community College and recommended by the high school faculties. This scholarship is a memorial to a former Glendale Community College football player, who was a graduate of Bellarmine-Jefferson High School.
- Gateway Kiwanis Scholarship** The Gateway Kiwanis Club of Glendale each year awards \$300 to an outstanding sophomore student who is planning to transfer to a four-year institution.
- Glendale Academy of Dentists Scholarship** The Glendale Academy of Dentists makes a scholarship award of \$200 to a student who has been accepted for admission to the Dental College of the University of Southern California.
- Glendale Art Association** One \$500 scholarship for an outstanding art student chosen by the Glendale Art Association from three candidates recommended by the Art Department of Glendale Community College.
- Glendale Bar Association Scholarships** Two \$100 scholarships are awarded to students majoring in the legal secretarial program. One scholarship is to be awarded to the outstanding first-year student continuing at Glendale Community College. The second scholarship is to the outstanding graduating student in the program. Awardees are selected by the Business Division faculty.
- Glendale Braille Transcriber's Guild Scholarship** One scholarship awarded to visually handicapped students either continuing at Glendale Community College or transferring to a four-year college or university.
- Glendale Business and Professional Women's Club Award** One hundred dollars will be awarded to a woman student in the New Horizons Program who is recommended by the New Horizons Steering Committee.
- Glendale Community College Cafeteria Employees' Scholarship** Two \$50 scholarships donated by the cafeteria employees of Glendale Community College to be awarded to students majoring in Food Services.
- Glendale Community College Dental Alumni Fund** This \$200 scholarship is awarded by alumni of the College who are practicing dentists. A necessary criterion is acceptance into a college of dentistry.

- Glendale Community College Faculty Award for Academic Excellence** The faculty of Glendale Community College annually awards a plaque and a monetary award to the student with the highest grade point average. A minimum grade point average of 3.5, at least 60 units, 45 of which must have been taken at Glendale Community College, and a well-rounded program are the main requirements.
- Glendale Community College Patrons Club Scholarships** Scholarships of \$75 each are available to both men and women for use at Glendale Community College. These are awarded primarily on the basis of financial need. An amount of approximately \$2,000 is donated yearly by the club.
- Glendale Community College Patrons Club Highest Man and Woman Awards** The Patrons Club makes a \$100 cash award each year to the man and the woman in the graduating class who have achieved the highest grade point average.
- Glendale Community College Patrons Club Music Scholarships** Sixteen Season Tickets to the Glendale Symphony are awarded each year to outstanding music students recommended by the Music Department at Glendale Community College. These tickets are purchased by the Glendale Community College Patrons Club.
- Glendale Community College Patrons Club Women's Center Scholarships** Two \$75 scholarships are awarded to mature women students to assist them in continuing their education at Glendale Community College.
- Glendale Community Foundation** Awards of up to \$1,000 are made to students transferring from Glendale Community College and enrolling in an upper division institution. Students must display academic excellence as well as possessing financial need.
- Glendale School Employees' Federal Credit Union** Annually, the Glendale School Employees' Federal Credit Union will donate \$100 to either a man or a woman student continuing at Glendale Community College or transferring to a four-year college or university.
- Glendale Women's Classified Service Clubs** One \$200 scholarship is awarded to a woman student transferring to an upper division institution. Funds for this scholarship are donated by the Altrusa, Pilot, Soroptimist, and Zonta Clubs of Glendale.
- Hughes Journalism Scholarship** One \$250 scholarship donated by Mr. Tom Hughes to an outstanding first-year journalism student who is continuing at Glendale Community College for a second year.
- Institute of Internal Auditors** The Los Angeles Chapter, Institute of Internal Auditors awards an annual scholarship in the amount of \$400 and two honorable mention awards of \$50 each to students majoring in accounting and transferring to an upper division institution.
- International Club Scholarships** Two \$100 scholarships are awarded each semester to assist International Students in meeting their expenses at Glendale Community College. Funds are raised by the Glendale Community College International Club.
- J. Lee Gregg Scholarship** The Fiel Foundation has established a scholarship in memory of Mr. J. Lee Gregg, prominent Glendale citizen. For two years \$150 per month for the nine school months will be paid to an outstanding man student upon his transfer to a four-year college or university. Nominations are made by the

- Scholarship Committee of Glendale Community College, and final selection of the recipient is made by the Gregg family. In addition, alternate awards are made.
- Janet and John Delmonte Scholarship** Two \$50 scholarships are awarded through the generosity of the Delmonte family. Preference is given to international students to assist them in continuing their education at Glendale Community College.
- John A. DeAngelis Memorial Flight Training Scholarship** One \$125 scholarship will be donated by Mr. and Mrs. John DeAngelis to a student each semester to help defray flight training expenses.
- John E. Kienle Scholarship in Sociology** Three \$500 scholarships are awarded for superior achievement in sociology and/or anthropology to a major in these areas. This scholarship is given in memory of a former teacher of sociology at Glendale Community College.
- John Kreider Scholarship** The Glendale Community College Patrons Club awards a \$100 scholarship to the outstanding graduating man selected by the graduating class. This scholarship is in honor of Mr. John Kreider, former Dean of Instruction at Glendale Community College.
- Kathryn G. Hanson Memorial Scholarship** A scholarship fund has been established by the family of Mrs. Kathryn G. Hanson in order to assist continuing older women students who have returned to Glendale Community College to resume their educational careers.
- La Crescenta Women's Club Scholarship** Two \$150 scholarships are awarded each year to a man and a woman resident of La Crescenta who are either continuing their education at Glendale Community College or transferring to a four-year college or university. Nominations are made by the Glendale Community College Scholarship Committee and final selection of the awardees is made by the Club.
- Las Donantes Scholarship** One \$50 scholarship awarded to a man or a woman continuing at Glendale Community College.
- Little Theater of the Verdugos Award** The Little Theater of the Verdugos each year awards \$200 to an outstanding student in theater arts. Consideration by the Scholarship Committee for this award is made each spring upon the recommendation of the faculty of the theater arts classes.
- Los Angeles Advertising Club Scholarship** One \$200 scholarship for a student majoring in commercial art and to be used to defray Glendale Community College expenses. The winner is selected by the advertising faculty.
- LVN Scholarships** Two \$50 scholarships are donated by the California Licensed Vocational Nurses' Association, Chapter #20 of Glendale. Funds are to be used to help defray expenses for second semester students in the LVN program.
- National Charity Leagues, Inc.** A \$200 scholarship donated by the Glendale Branch of the National Charity Leagues, Inc. to be awarded to a woman transferring to an upper division institution.

- National Secretaries Association** The San Fernando Valley Chapter of the National Secretaries Association will award a \$100 scholarship to an outstanding student who plans to become a secretary.
- New Horizons Scholarship** One \$50 scholarship will be awarded to a continuing woman student recommended by the New Horizons Steering Committee and donated by an anonymous student who participated in the New Horizons Program.
- New Horizons Re-Entry Scholarship** A \$100 scholarship donated by a person who wishes to remain anonymous and to be awarded to a returning student as recommended by the New Horizons Advisory Committee.
- New Horizons Resource Center Scholarships** A number of scholarships donated by the Soroptimist Club of Glendale are awarded to assist mature women students in continuing their education at Glendale Community College. The awardees are selected by the staff of the Glendale Community College Women's Center
- Oakmont League of Glendale Scholarship** The Oakmont League awards a \$1,000 scholarship annually to a transferring student to assist him in completing his education at a four-year accredited college or university. The selection is based on financial need, academic achievement, integrity of character, and chances of success. The scholarship is not restricted to any one field, but the candidate must have determined his occupational goal. An award is also made to an alternate. Candidates are selected by the Glendale Community College Scholarship Committee, and final selection of the recipient and the alternate is made by the Scholarship Committee of Oakmont League.
- Owen Marsh Meredith** An award of \$50 is given annually to a student transferring to a four-year college or university in memory of a former Glendale Community College student, Owen Marsh Meredith, from funds contributed by his mother.
- Panhellenic Scholarship** Each year, the Glendale Area Panhellenic Association awards a \$100 scholarship to a graduating woman who plans to continue her education at a four-year college or university where there are national sororities.
- Patrons — Ernest Jaramillo Memorial Scholarship** A \$75 scholarship will be awarded to an outstanding Glendale Community College football player on the recommendation of the College coaching staff and named in honor of Ernest Jaramillo, a former football player at Glendale Community College. The funds for this scholarship are contributed by the family and the Patrons Club.
- Richard W. Tang, Jr. Memorial** Each year, \$50 is awarded to the outstanding male athlete of Glendale Community College.
- Sertoma** The Sertoma Club of Glendale awards one scholarship in the amount of \$100 to help defray expenses at Glendale Community College for a student's final semester of study. Candidates must have completed 45 units of work at Glendale Community College. Final selection is made by the Sertoma Club from candidates suggested by the Glendale Community College Scholarship Committee.

- Soroptimist Club Retraining Award** An award is made each year by the Glendale Soroptimist Club to a returning woman student preparing herself to enter a new career. The awardee is selected by the Soroptimist Club from nominations submitted by the New Horizons Planning Committee.
- Southern California Edison Company Scholarship** A scholarship is offered to an outstanding community college graduate pursuing his education in a four-year college or university located in the Southern California Service Area. Students must be residents of the same service area. Candidates must concentrate their studies in either the Business Administration or Engineering curricula. The scholarship is valued at from \$500 to \$1,500 depending upon the four-year institution chosen for upper division study.
- Stuart Palmer Memorial Scholarship** One \$50 scholarship will be awarded to a student who shows talent in creative writing. Contributions for this scholarship will come from friends of Stuart Palmer, who are in a large degree, writers themselves.
- Toastmasters Jewel City, Chapter 29** One full year's membership in the Glendale Toastmasters Association for a student interested in developing public speaking. Candidates are selected by the Glendale Community College Scholarship Committee. Final selection is made by the Toastmasters organization.
- Tuesday Afternoon Club Scholarships** Each year, the Tuesday Afternoon Club makes two awards of \$100: one to a student who has majored in science, and is transferring to a four-year institution to complete his training in science; and one to a student who plans on becoming a teacher.
- Valley National Bank Scholarship** Four scholarships are donated by the Valley National Bank, Glendale's home-owned banking institution. Awardees must be business majors continuing their education at Glendale Community College.
- Women's Athletic Club Study Grant** The Women's Athletic Club of Glendale makes a \$300 scholarship award to an outstanding woman in the graduating class who plans to make a career in physical education.
- Women's Committee of the Glendale Symphony Association** This organization awards an annual scholarship to a student selected by the music department and the Scholarship Committee of the Association. Candidates must have completed 48 units of work at Glendale Community College, have a 3.0 grade point average in music, and be prepared to present a recital.



The Associated Student Body of Glendale Community College is the official student organization. Numerous opportunities are provided students to participate in its activities. The Student Legislature is elected each semester and meets each Tuesday at 7:00 a.m. in the Conference Room of the Campus Center for the purpose of discussing and determining policies, procedures, and expenditures of student government. This meeting is open to all members of the Associated Student Body. Social and athletic programs and an accounting office for student funds are maintained. A well-stocked bookstore is operated under the supervision of a business manager, and any net income is used to promote the program of the Associated Students. In addition, the Associated Women Students and the Associated Men Students have programs of activities.

**A.S.B. Membership**

The Student Services card is required of all students who participate in any activity, program, or event which is financed in part or wholly by the Associated Students. In order that all students become acquainted with this regulation, those students not purchasing a Student Services card will be requested to sign a waiver form during the registration period, forfeiting the right to participate in A.S.B.-sponsored activities.

**Activity Period**

No classes are scheduled Tuesday and Thursday at 11:00 a.m. These hours are reserved for A.W.S. and A.M.S. Board meetings, club meetings, student committee meetings, student assemblies, College Orientation Seminars, and other all-college functions.

A Master Calendar is maintained in the Office of the Dean of Community Services, and all Campus groups are required to register their activities two weeks in advance of the event.

**Athletic Program**

A complete program of athletics is sponsored by Glendale Community College. The College is a member of the Western State Intercollegiate Athletic Conference and participates in most of the sports programs sponsored by the Conference. The Intercollegiate Sports Association and the Physical Education Department for Women sponsor a complete program of sports and athletic activities for both men and women.

Members of the Associated Student Body are offered the opportunity to join the intramural sports program. Most competition is between Campus organizations, but individuals are encouraged to participate.

**Clubs**

Opportunity to render service to Glendale Community College or to pursue a special interest is provided through participation in the club program offered on the Campus. (For a list of clubs see Organization Roster.) All students are urged to affiliate with at least one organization. Club policies are coordinated by the Inter-Club Council.

**Hazing**

According to the State Education Code, Article VIII, no club, group, organization, or individual may participate in any activity that involves hazing. Hazing includes any method of initiation or any pastime of amusement which causes, or is likely to cause, bodily danger or physical harm to any student or other person attending any educational institution in this State.

Further, hazing also includes any act that *tends* to injure, degrade, or disgrace any fellow student attending Glendale Community College.

Any Glendale Community College student who participates in hazing of any kind shall be suspended from College for further discipline by authorities, and if a member of an on-campus club, shall be suspended from the club of which he is a member. Also, the club shall be placed on probation or suspended.

**Honors** Superior scholarship and distinguished service to the College are recognized by various awards presented at the Honor Awards Banquet.

**Honor Societies** The following honor societies function at Glendale Community College: Alpha Gamma Sigma — State Scholarship Society; Beta Phi Gamma — National Inter-Collegiate Journalism Fraternity; Delta Psi Omega — Drama Club; Epsilon Omega — Women's Honorary Club; Sigma Xi Sigma — Honorary Physics and Chemistry Club.

**Recreation** Both students and faculty participate in the many recreational activities provided by the Associated Student Body, in addition to dances and games regularly held in the Campus Center and Corral, four Sports Nights are scheduled each year in the College Gymnasium. This popular activity attracts an average attendance of about 400 students and faculty.

**Orientation of New Students** Sponsored by the Associated Women Students, the "Welcome Hour" and "Dungaree Dinner" are two added features of the Orientation Program for students. They help the student to become better acquainted with other students and with the purposes and activities of the Associated Students and Service Clubs.

**Campus Speakers and Distribution of Literature** Glendale Community College endeavors to promote the widest dissemination of opinion in harmony with state and federal regulations and district policies. Students who desire to present speakers on campus or distribute literature on campus may follow the procedures outlined for such activities. These procedures are available in the office of the Dean of Student Personnel Services in the Administration Building, Room 107.

Organization Roster

		Membership	Meets 1 & 3 Tuesdays	Meets 2 & 4 Tuesdays	Meets 1 & 3 Thursdays	Meets 2 & 4 Thursdays	Open to All	Subject to Qualifications
<b>A.S.B. Government</b>								
A.S.B. Legislature	Governing Body	Both	X	X			X	X
A.S.B. Executive Board	Governing Body	Both						X
A.M.S. Board	Governing Body	Men						X
A.W.S. Board	Governing Body	Women	X				X	X
Inter-Club Council	Governing Body	Both						X
<b>Athletic Organizations</b>								
Intercollegiate Sports Assn.	Co-ed Sports	Both						X
<b>Interest Clubs</b>								
Alpha Chi	Art	Both	X					X
American Society of Engineers and Architects	Architecture	Both	X					X
American Inst. Astronautics/Astronautics	Aerospace/Aviation	Both						X
Aqua Vaqs	Skindiving	Both	X					X
Armenian Club of GCC	Armenian Heritage/ Community Understanding	Both	X					
<b>Association Estudiantil</b>								
Cubano-Americana	Social/Cultural Activities	Both			X			
Baha'i Club of Glendale Community College	Baha'i Faith	Faith			X			X
Beta Kappa	Business	Both	X					X
Biology	Biology	Both	X					X
Chess Club	Chess	Both	X					X
Chinese Club of GCC	Chinese Speaking Students	Both	X		X			
Christian Science	Christian Science	Both	X		X			X
Club Hispano	Encourage College Involvement	Both			X			
Common Cause	Citizens Political Lobby	Both	X		X			X
Computer Club of GCC	Interest in Computers	Both			X			X
Delta Tau	Engineering	Both	X					X
Flying Club	Aviation	Both	X					X
Glendale Community College Democrats	Political	Both	X					X
Glendale Community College Human Relations Council	Human Relations	Both	X					X
Glendale Community College Music Club	Music	Both						X
Glendale Community College Republicans	Political	Both	X					X
Hillel	Religious	Both	X					X
International Students	World Friendship	Both	X		X			X
Intersity Christian Fellowship	Bible Study	Both	X					X
Judo-jujitsu	Self Defense	Both			Arranged			
Latin American Club	Pro-scholarship	Both	X					X
Latter Day Saints Students Organization	LDS Church	Both	X					X
Modern Dance	Development in dance	Both			X			X
Organization of Arab Students	Arab-U.S. Understanding	Both	X					X
Photography Club	Photography	Both	X					X
Pre-Dental Club	Dentistry	Both	X					X
Ski Club	Skiing	Both	X					X
Soccer	Soccer	Men			Arranged			X
Student Action Council	Supplement ASB Activities	Both	X					X
Tau Omega Phi	Teaching	Both	X					X
Young Americans for Freedom	Political	Both	X					X
<b>Honorary Organizations</b>								
Alpha Gamma Sigma	Scholarship	Both			X			X
Beta Phi Gamma	Journalism	Both			X			X
Delta Psi Omega	Dramatics	Both			X			X
Epsilon Omega	Honorary-Service	Women			X			X
Sigma Xi Sigma	Physics-Chemistry	Both			X			X
<b>Service Organizations</b>								
Circle K	Service	Both			X			X
Delta Chi Delta	Service	Women			X			X
Gamma Delta Phi	Service	Women			X			X
Phi Alpha Theta	Service	Women			X			X
Psi Delta Phi	Service	Women			X			X
Zeta Sigma Phi	Service	Women			X			X

Interest clubs may be joined by attending the meetings.

Application for membership in Women's Service Clubs may be made through the Office of the Dean of Student Support Services, Administration Building, Room 106.

**Admission Requirements** Applicants who are high school graduates or are over 18 years of age and give evidence that they will profit from the instruction given at Glendale Community College may be admitted. When considering applications for admission of persons having exhibited a questionable standard of citizenship, the basic test will be how other students will be affected by contact or association with these persons. Each case will be considered on an individual basis by the Petitions Committee after consultations between the applicant and the Dean of Student Activities.

International students applying for student visas must meet special requirements. For a statement of these, inquiries should be made of the Dean of Admissions and Records.

**Application** All applications for admission should be sent to the Office of Admissions and Records, Glendale Community College, 1500 N. Verdugo Road, Glendale, California 91208.

**Matriculated Student** All candidates for a degree or certificate from Glendale Community College, or planning to transfer to an upper division institution, or desiring to enroll for courses that have test and/or course prerequisites, should be matriculated students.

To become a matriculated student it is necessary either to have all transcripts of previous high school and college schooling on file in the Admissions Office at Glendale Community College, or, the applicant must have taken the Preregistration Examination at Glendale Community College. Completion of an application, the submission of the transcripts, and/or taking the Examination will provide full matriculation for the application.

**Non-matriculated Student** A non-matriculated student is one who has filed an application for admission but has not filed transcripts of previous schooling nor taken the Pre-registration Examination. Such students must select courses from the list of classes having neither test prerequisites nor course prerequisites, except those satisfied by previous courses completed at Glendale Community College.

**Student Records** All education records of students (current and former) at Glendale Community College are maintained in accordance with applicable federal and state regulations pertaining to the Family Educational Rights and Privacy Act of 1974. A student may request access to his or her education record and may challenge the accuracy of the record or the appropriateness of its retention. Student consent is needed for the release of records covered by the Act to outside parties (prospective employers, for example) except for those persons or agencies entitled to access under the provisions of the Act (campus officials, other schools, requests in connection with the application for or receipt of financial aid).

A student may request a personal copy of a record which the student has or consented to be released to another agency.

Particular questions concerning student prerogatives under the Family Educational Rights and Privacy Act of 1974 should be directed to the Dean of Admissions and Records.

**Transcripts** Glendale Community College reserves the right to evaluate work completed in other colleges or universities if transcripts are submitted by an applicant. Transfers with acceptable grades will be granted advanced standing insofar as the work completely corresponds with that of Glendale Community College. Transfers accepted with previous college academic records below a "C" average will be placed on academic probation upon admission.

Failure to file transcripts may delay admission unless the applicant has taken the Pre-registration Examination.

Transcripts should be sent directly from the high school or college to Glendale Community College. All transcripts become the property of Glendale Community College and will not be returned.

**Pre-registration Examinations** Each applicant as a matriculated student must take Pre-registration Examinations which are given in April, May, June, July, August, September, December, and January (see College Calendar for dates and hours). Failure to take these Examinations will delay or prevent registration; applicants are advised to take them at the earliest date possible. Students applying for matriculated status must take the Pre-registration Examination. The form for admission to the Examination must be requested when applying, completed and presented for admittance on the day of the Examination. No student will be admitted to the testing area without the completed Examination admission form.

The results of these Examinations are not used to disqualify any person seeking admission, but are used to help the student and his counselor in arranging a satisfactory program of studies.

The Test of English as a Foreign Language (TOEFL) Examination is required of all applicants seeking admission as International Students. Information concerning these examinations is available at the Admissions Office, Glendale Community College or from the Educational Testing Service, Box 899, Princeton, New Jersey 08540, and from local office in Eagle Rock, California (213) 254-5236.

The Comparative Guidance and Placement Program is a group of tests, questionnaires, and related services designed to meet the unique guidance and placement needs of two-year colleges. The program is sponsored by the College Entrance Examination Board and was developed by the Board in cooperation with Educational Testing Service. The basic instruments of the CGP are two questionnaires and six tests. One questionnaire provides an inventory of student's interests in 11 academic and vocational areas; the other is a biographical questionnaire concerned with background, attitudes, plans, and needs. Three of the tests measure the student's verbal and mathematical skills; three are non-traditional measure of special abilities.

*Interest and Background Measures*, designed to collect and summarize information about a student's educational plans, aspirations, previous work, high school background, financial needs, and academic and vocational interests. Questionnaires are named Biographical Inventory and Comparative Interest Index.

*Placement Tests*, designed with particular emphasis on identifying deficiencies in reading, English usage, fundamental mathematics, all of which are basic skills necessary for success in almost any educational endeavor. Tests included are Reading, Sentences, and Mathematics. The results of this Examination will also be used to determine for the student his eligibility for enrollment in courses offered by the Social Science Division as well as the Language Arts Division. The Pre-registration Examination yields a score on the mathematics section evidencing the student's proficiency in mathematics required for graduation.

*Special Abilities Tests*, designed to provide the student with information about his special abilities so that he can see his own abilities in relation to the kinds of abilities necessary for success and satisfaction in various curriculums. Tests include Year 2000, which measures ability to follow directions; Letter Groups, which requires the student to form and try out hypotheses; and Mosaic Comparison, which tests perceptual speed and accuracy.

*Experimental Tests*, designed for the development of new tests, particularly non-verbal tests, which will enable the student who does not fit the traditional collegiate pattern to demonstrate his competencies. (Students and colleges do not receive scores on these tests).

### **Residence Requirements**

The following statement of the rules regarding residency is intended for general information only.

At the time of registration each student is required to file a "Statement of Residence." Even though a student may be admissible to Glendale Community College, the student may be denied registration privileges in accordance with the residence requirements.

A "resident student" means any person who has been a bonafide resident of the state of California for one year or more on the day preceding the first day of instruction of a semester or session during which the person proposes to attend.

A "nonresident student" means any person who has had legal residence in California for less than one year on the day preceding the first day of instruction of a semester or session during which the person proposes to attend.

The residence requirements are applied as follows:



1. A "resident student" whose residence is in the Glendale Community College District which is composed of Glendale, Montrose, La Crescenta, Verdugo City and a small portion in the western part of La Canada may attend Glendale Community College.
2. A "resident student" whose residence is in California but outside the Glendale Community College District and not in another community college district in California may attend Glendale Community College.

Residents of the Pasadena area, to include all but a very small portion of western La Canada, will be required to have a permit from the Pasadena Community College District if enrolled for 10 class hours or more per week.

Most residents of the Los Angeles Community College District are required to have an interdistrict permit to attend Glendale Community College for 10 or more class hours per week. The exception to this is the Eagle Rock-Highland Park area where some residents may attend for unlimited hours without a permit. Eagle Rock-Highland Park residents should contact the Residence Clerk in the Office of Admissions and Records for specific instructions regarding permit requirements.

All other applicants who reside in districts other than Glendale should contact the Residence Clerk in the Office of Admissions for information regarding interdistrict regulations for their particular area.

3. A "resident student" whose residence is in California and in a community college district other than the Glendale Community College District may attend Glendale Community College if the student presents a transfer permit from the district of residence.
4. A "nonresident student" may be admitted to Glendale Community College, but will be required to pay either an Out-of-State or an International Student tuition charge as appropriate to their circumstances. The tuition rates are established on a yearly basis. For information concerning the current rates please contact the Office of Admissions and Records.

The principal rules for residence determination are:

1. There can be only one residence.
2. A residence is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which one returns in seasons of repose.
3. A residence cannot be lost until another is gained.
4. The residence can be changed only by the union of act and intent.
5. A man or woman may establish his or her residence. A woman's residence shall not be derivative from that of her husband.
6. The residence of the parent with whom an unmarried minor child maintains his place of abode is the residence of the unmarried minor child. When the minor lives with neither parent his residence is that of the par-

ent with whom he maintained his last place of abode, provided the minor may establish his residence when both parents are deceased and a legal guardian has not been appointed.

7. The residence of an unmarried minor who has a parent living cannot be changed by the minor's own act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control.

### **Guidance and Counseling**

Glendale Community College includes within the structure of its administrative organization a guidance program with a counseling service providing skilled assistance for:

Helping the individual student to understand himself and to plan the best use of his abilities and opportunities.

Advising with and assisting the individual student to implement decisions which he makes in working out solutions to his personal problems.

Aiding the individual for college life adjustment by providing group guidance, as well as group and individual counseling.

Assisting the individual to achieve success in and beyond college by making available guidance and counseling services such as health, course planning, financial aid, placement, and follow-up.

Prior to registration and according to his vocational interest, every student is assigned a counselor who will assist with the preparation of the Study List to be used in formal registration. It is the responsibility of the student to plan his own course and make his own decisions; the counselor will help with suggestions based upon the information derived from the student's high school record, the ability and placement tests given at the Pre-registration Examination, and other special interest and personality tests administered as the need arises. After the initial interview, the counselor will be available at scheduled hours for conferences to give personal assistance to individuals about careers, education, student activities, employment, and personal and social problems that may arise with the adjustment to college life.

### **Counseling Services**

Counseling Services are available in the Administration Building which houses the Counseling Offices and may be arranged for through the Office of the Dean, Guidance and Counseling, Room 112, or with the appointment secretary who will set a time for an interview with the assigned counselor, Room 113.

### **Group Counseling**

Students may arrange with their assigned counselor to participate in a group scheduled primarily to help students cope with the problems incidental to academic achievement.

### **Guidance Testing**

In addition to the tests included in the Pre-registration Examinations, the counseling staff has available a variety of standardized test materials for the assistance of students. Among these are other tests of ability, vocational interest, and achievement, as well as tests of various aptitudes, special skills and personality.

The Testing Office is located in Room 112 of the Administration Building.

### Learning Resource Center

A laboratory provides students with the opportunity to increase their efficiency in the classroom. Auto-instructional machines, programmed texts, and devices for improving study skills, writing skills, listening skills, and reading skills are available to students in the Developmental Studies Program, English 190, 191, 192, and Guidance 190, 191, 192, 194, 196. Aides receive training as student aides, tutors, and para-professionals. This training involves learning, testing and prescription techniques, taking Super 8 movies for use in the classroom, as well as methods of producing film loops, and minicourse learning packages. Students taking this course are given first consideration as aides and tutors in the Learning Resource Center.

### Eligibility for Courses

A student is eligible to enroll in any course offered at Glendale Community College provided he has fulfilled the stated prerequisites for the course. A student may occasionally have had outstanding experience in a given area which he may feel will substantially satisfy the stated prerequisite for a course. Where it is desired to offer such experience for the regular prerequisite, the student must have a petition approved to make such substitution. Once such a petition has been approved the student may not later receive credit for a course for which he substituted the outside experience. Students who are considering developing a petition should first read the section on Credit by Examination.

**Credit for lower level courses will not be granted if credits have been earned in higher level courses.** Many courses have no stated prerequisite. Here the student should realize that it may be assumed that he has previous successful experience with related subjects, he has the ability to read with speed and understanding, and he has the ability to express himself in clear and concise English.

These factors are considered by counselors when assisting a student with his Study List from which he will select courses as he makes out his program during the registration period.

A student with a poor scholastic record in any subject field should not expect to carry advanced work in that field.

### Registration

Each student must officially enroll in classes chosen from an approved Study List. These classes constitute the official program of the student. Changes to this program may be made by completion of a Petition for Change of Program.

All Day students whether continuing, new, or returning, register at the day and hour they select. This selection is made in the Office of Admissions and Records after student is cleared in Counseling Center and obtains Registration Appointment Permission Slip.

All Evening-only students register according to the times published in the Schedule of Classes.

Continuing Evening-only students may register by mail. For information regarding registration by mail call the Admissions Office, 240-1000.

The student is held accountable for all classes in the official program as a result of original registration or addition through Petition for Change of Program. The student may not receive credit for classes attended unless they are part of the official program. Registration for purposes of auditing is not permitted. (See section on Withdrawal from Class or College).

**Costs** No tuition is charged at Glendale Community College for students whose legal residence is in California. A non-resident tuition will be charged students whose legal residence is in a state other than California. The tuition is \$37 per semester unit. International Students should consult the Office of Admissions and Records for special tuition charges. Special tuition rates are applicable to International Students who have an F-1 Student Visa.

Students are held responsible for any loss or breakage of College equipment.

At registration time students will have the expenses of purchasing textbooks, supplies, and other incidentals. Students should bring about \$60 at the time of registration to cover these expenses. There will be need for additional supplies during the semester but the amount varies with the course taken. Flight training is contracted for at the Student's expense.

A Health Services fee is required of all students. This fee provides various health services on the College campus as well as an on-campus accident insurance policy. The fee is \$4 per semester for students enrolled in 9 or more units and \$3 per semester for students enrolled in 8½ units or less. This charge is mandatory. It is payable at the time of registration. No refund of this fee is made at any time.

All students are expected to pay the student fee which is \$5 per semester. This fee provides membership in the Associated Student Body and funds various College activities, such as; a scholarship program, the emergency loan fund, the College Bookstore, the Business Office, the newspaper, inter-collegiate athletics, and assemblies. In addition, students who pay this fee receive free admission to various College programs and are entitled to a discount in approximately 30 Glendale retail establishments.

**Associated Student Body  
Membership**

Membership fees for the Associated Student Body are set yearly by the Legislature of that Body. Inquiries concerning the fee should be directed to the Office of the Dean of Student Activities, Administration Building, Room 106. Current fees are also shown in the class schedule issued for each college semester. Students who withdraw from college the first two weeks of school may receive a refund of 50% of the purchase price. Application for refund must be made in the A.S.B. Business Office — Bookstore Building. No refunds will be made for students who withdraw after the second week of instruction.

Identification pictures will be taken of all students who register at Glendale Community College for the first time. In the event the picture must be replaced for any reason, the replacement cost is four dollars (\$4).

- Unit of Work** The credit value in semester units of each course is indicated after the title of the course under "Course Descriptions." Each unit represents one hour per week of lecture or discussion, or a longer time in laboratory or other exercises not requiring outside preparation. For each hour of lecture-discussion, two hours of preparation are assumed.
- Unit Limitations** The student's program of studies will vary according to his needs and objectives. The normal program for a student at Glendale Community College is 16 units. Students registered in 12 or more units are classified as full-time students; those registered for less than 12 units are classified as part-time students. The academic load carried should be in line with the best combined judgment of the student and the counselor. The College recommends that students who are working 20 hours per week should carry no more than 10 units; 30 hours per week, no more than 8 units; and 40 hours per week, no more than 6 units. Individuals having health problems should make proportionate adjustments in their college programs.
- A first semester student, one who has not completed at any college one semester of resident study of 12 semester units of credit or a quarter of resident study of 8 semester units of credit, should not register for more than 16 units plus one unit of music performance and a physical education activity. Advanced students should not register in more than 18½ semester units. These unit limitations apply to the total of day and extended day courses.
- Normal Academic Progress** Full Time: Completion of at least 12 units each semester with a maximum of five semesters to complete the A.A. or A.S. Degree requirements.
- Three Quarter Time: Completion of 9-11 units each semester with a maximum of seven semesters to complete the A.A. or A.S. Degree requirements.
- Half Time: Completion of 6 to 8 units each semester with a maximum of ten semesters to complete the A.A. or A.S. Degree requirements.
- Good standing is defined in terms of normal academic progress for those students receiving benefits from Basic Grant, College Opportunity Grant, College Work Study, EOPS, Occupational Education and Training Grant, Supplemental Educational Opportunity Grant, Bureau of Indian Affairs Grant, and Guaranteed Student Loan Program.
- Scholarship Standards** Glendale Community College interprets a "C" average as satisfactory scholarship standard — which means that the student should receive grade points equal to twice the number of units attempted (See section on Grades, Grade Points and Grade Point Average).

Students who fail to maintain satisfactory scholarship may be placed on academic probation and may be dismissed.

1. Academic Probation. A student will be placed on probation if the student's cumulative grade point average for units attempted is less than 2.0 (C average based on grade points per unit calculated as follows: A-4 grade points, B-3 grade points, C-2 grade points, D-1 grade point, F, WF, WU, W, Inc/W, Inc/F-0 grade points).
2. Dismissal. A student who, while on probation, earns less than 2.0 grade point average during each of two consecutive semesters shall be dismissed and not be re-instated until at least one semester has elapsed after the dismissal. Students dismissed from other colleges or universities must abide by the procedures for students dismissed from Glendale Community College with respect to seeking admission.

A student having been re-instated on probation after academic dismissal from College must maintain a 2.0 grade point average for units attempted during each semester subsequent to the dismissal or will again be dismissed for at least one semester.

#### Grades, Grade Points, and Grade Point Average

The standing of students in each course will be determined by class work and examinations. Grades will be reported and grade points allowed as follows:

A — Excellent	4 grade points per unit
B — Good	3 grade points per unit
C — Average	2 grade points per unit
D — Barely passing	1 grade point per unit
F — Failure	0 grade points
Inc/W — Incomplete Passing	0 grade points
Inc/F — Incomplete Failing	0 grade points
W — Withdrawn	0 grade points
WF — Withdrawn Failing	0 grade points
WU — Withdrawn Unofficial	0 grade points
Cr. — Credit	0 grade points
NC — No Credit	0 grade points
Cr/Ex — Credit by Exam	0 grade points

An incomplete grade ("Inc/W" or "Inc/F") or a "W" will be given when an emergency prevents a student from completing the work in a course. The incomplete grade must be removed by the end of the sixth school week after the beginning of the semester subsequent to the one in which the "Inc" was received, regardless of whether the student re-registers. If not removed, the incomplete grade automatically becomes a grade of "F" if the student was failing at the time the incomplete grade was recorded and a grade of "Inc/F" was reported; the student is automatically credited with a "W" if passing at the time the incomplete grade was recorded and a grade of "Inc/W" was reported.



The grade of "F" in any course denotes failure, it does not fulfill requirement for entry into any new course for which the failed course is a prerequisite, and the course must be repeated if the student desires credit. An "F" cannot be removed by examination.

Although cumulative-credit courses; such as, Music 130 (Chorus) or Music 151 (Orchestra), are designed to be continued for additional credit, most Glendale Community College courses are not so designed. Enrollment in courses, other than cumulative credit courses as designated in the course description, in which a grade of "C" or better has been earned may not be repeated without specific permission. Students desiring to repeat classes for reasons such as grade improvement should request the required permission by submission of a Petition to the Executive Committee.

Students who repeat a course should file a Petition to Count Only the Highest Grade Earned. This should be filed in the Office of Admissions and Records. For computation of grade point average, the units *attempted* and grade points earned are counted only once and according to the higher or highest grade earned in the course. If the grade is the same in both or all cases, the units *attempted* and grade points will be counted only once. This applies to computation of grade point average, as well as toward the completion of a curriculum or the requirements for the Associate in Arts Degree.

The grade point average is computed by dividing the number of units *attempted* into the total number of grade points earned. The units *attempted* is the sum of the units earned in classes taken with passing grades and, when the recorded grade is an "F", "WU", or "WF" the units which would have been earned if a passing grade had been recorded. A "W" grade does not enter into such computation. Also, such computations do not include the unit value of courses for which only credit (CR) is allowed *either* on satisfactory completion of the course or on satisfactory completion of an examination taken under the regulations established for Credit by Examination. If a course is repeated for improvement of grade point average, the units *attempted* and grade points earned are counted only once and according to the higher or highest grade earned in the course. If the grade is the same in both or all cases, the units *attempted* and grade points will be counted only once. An "Inc" made up carries the grade points per unit appropriate to the grade given on makeup. An "Inc/F" not made up (see time limitation) automatically becomes a grade of "F" if the student was failing at the time the incomplete grade was recorded and a grade of "Inc/F" was reported. It is computed as such in units *attempted* and grade point computation. An "Inc/W" not made up (see time limitation) automatically becomes a grade of "W" if the student was passing at the time the incomplete grade was recorded and a grade of "Inc/W" was reported. Units of "W's" are not counted in the units *attempted*.

A student is entitled to two (2) copies of his college record for his own use.

**Credit for Advanced Placement Examinations**

Glendale Community College recognizes the high level of achievement of the student who has successfully completed one or more Advanced Placement Examinations as authorized by the College Entrance Examination Board (CEEB) and shall award credit based upon the criteria established by the College.

**Credit for Military Training**

Glendale Community College will recognize and grant credit to veterans for educational training completed in the armed forces provided such credit is not a duplication of work taken previously. College work completed through the United States Armed Forces Institute will be accepted. In order to receive credit for military training, veterans must petition for such credit and present authentic military service and training records including a copy of discharge papers.

Applicants desiring credit for military training will be required to prove their capability by earning fifteen units with "C" average at Glendale Community College before credit for military service can be granted. Credit awarded for military training will include subject credit for Hygiene toward the Associate in Arts Degree.

**Credit by Examination**

Upon consent of the instructor and under special circumstances a student regularly enrolled and in good standing and who believes he is qualified by experience or previous training, may apply to take a special examination to establish credit in a course in which he is not formally registered. Credit for lower level courses will not be granted if credits have been earned in higher level courses.

Courses open to Credit by Examination include the following:

Administration of Justice 101, 108, 112

Allied Health 250

Art 101, 102, 103, 106, 107, 108, 113, 116, 180

Aviation and Transportation 110, 111, 113, 115, 116, 120

Business 122, 128, 129

Chemistry 101, 102, 110, 141

Drafting 131

Electronics 171, 172

English 101

Geology 101, 105, 110

Graphics 165

Health 101, 103

History 117-118

Machine Shop 101, 102

Materials and Processes 146

Music 101, 104, 105, 106, 107, 120, 125, 126

Political Science 101, 105

Spanish 115, 116

Technical Education 145

NOTE: No student may earn more than 12 units by examination only.

**College Level Examination  
Program Policy**

The College Level Examination Program is designed to award academic credit to mature students who have gained the equivalency of college course work through means other than enrollment in a formal college program. Six (6) units of elective credit will be granted in each of five subject areas to students who achieve a percentile rank of fifty (50) or higher on each examination. The maximum credit is thirty (30) units. The five general areas are: English composition, humanities, mathematics, natural sciences, and social sciences - history. Further information concerning the CLEP is available in the Guidance and Counseling Office.

**Credit-No Credit Courses**

It is recognized that many students fail to explore outside their specific fields of competence for fear of damaging their academic records. To offset this factor a system of Credit-No Credit has been devised which allows them to vary their programs without risk to their records. If a student elects to take a given course on a Credit-No Credit basis, he participates in the class as a regular student. If he fails or earns a "D" grade in the course, no penalty is awarded and thus his grade point average is unaffected. If he passes the course with a grade of "C" or better, he does not receive a grade but is given *credit* for completing it. Courses completed on this basis count toward graduation and usually transfer just as courses completed on the normal letter grade system; but such courses are disregarded in determining a student's grade point average for all purposes for which a grade point average is required.

A student not on probation and enrolled for fifteen or more\* units may designate one three unit course (selected from those listed below) for Credit-No Credit if he initiates a petition to do so during the first eleven (11) instructional weeks of a semester course. The course designated must be outside of courses required for the student's major. The petition is secured from the student's counselor. Courses which may be selected for Credit-No Credit evaluation include:

Administration of Justice (all)	Food Service 111, 112,
Anthropology 101, 102, 103	113, 114, 115, 116, 117, 118, 119, 120
Architecture (all)	Food Service Management
Art (all)	211, 212, 213, 214
Business (all courses except 101,	French 110, 111
102, 245)	Geology 101, 105, 110
Chemistry 110, 141, 143	German 106
Drafting (all)	Graphics (all)
Economics 101, 102, 107	Guidance (all)
Electronics 171, 172	Health 101, 103
Engineering 101, 103, 104,	History 101, 102, 106, 107, 108,
110, 142	109, 111, 112, 113, 119, 120, 151
English 103, 105, 106, 109, 110, 122,	Home Arts (all)
123, 124, 125, 126, 128, 190, 192,	Independent Studies 149
193, 199	Italian 110
Family and Consumer Studies (all)	Machine Shop (all)
Fire Science (all)	Management (all)

Materials and Processes 146	Psychology (all)
Mathematics 140, 141, 150	Real Estate (all)
Metals 115	Russian 110
Mineralogy (all)	Social Science 102, 103, 122
Multi-Media 190	Sociology (all)
Music (all except 163)	Spanish 106, 110, 111, 125, 126
Paleontology 101	Speech 121
Philosophy (all)	Technical Education (all)
Photography (all)	Theatre Arts 103, 104, 109, 110,
Physical Education 120-292	121, 122, 123, 131, 134
Physical Science 131	Welding (all)
Physics 110	
Political Science 102, 104, 106, 110,	
111, 151	

\*If registered for 16 units, a four unit course may be designated for Credit-No Credit. If registered for 17 units, a five unit course may be designated for Credit-No Credit.

**General Conduct** Students are expected to maintain the highest standards of citizenship. In conformity with California State Law, the governing board of Glendale Community College has drawn up a statement of conduct and disciplinary procedures for Glendale Community College students.

These *Standards of Student Conduct* are stated below.

A student enrolling in Glendale Community College may rightfully expect that the faculty, administrators, and the legislature of the Associated Students of Glendale Community College will maintain an environment in which there is freedom to learn. This requires that there be appropriate conditions and opportunities for learning in the classroom and on the campus. As members of the College community, students should be encouraged to develop the capacity for critical judgment, to engage in sustained and independent search for truth and to exercise their rights to free inquiry and free speech in a responsible, non-violent manner.

Students shall respect and obey civil and criminal law, and shall be subject to legal penalties for violations of the laws of the city, county, state, and nation.

Student conduct at Glendale Community College must conform to the Glendale Community College Policy *Standards of Student Conduct*. Violations of such policy for which students are subject to disciplinary action include, but are not limited to, the following:

1. Failure to comply with directions of college officials acting in the performance of their duties,
2. Dishonesty including, but not limited to, cheating, plagiarism, or knowingly furnishing false information to the college,
3. Forgery, alteration, or misuse of college documents, records, or identification,

4. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other college activities, including (but not limited to) its community service functions, or of other authorized activities on college premises,
5. Physical abuse of any person on college-owned or controlled property or at college-sponsored or supervised functions or conduct which threatens or endangers the health or safety of any such person,
6. Theft of or damage to property of the college or a member of the college community or campus visitor,
7. Unauthorized entry to facilities or use of college supplies or equipment,
8. Violations of college policies or of campus regulations including campus regulations concerning student organizations, the use of college facilities or the time, place and manner of public expression,
9. Violation of judicial and statutory standards of obscenity.
10. Use, possession, distribution, or presence on a campus while under the influence of alcoholic beverages, narcotics, or other dangerous drugs, such as marijuana and lysergic acid diethylamide (LSD), except as expressly permitted by law,
11. Possession while on the college campus, or at a college-sponsored function, of any item ordinarily considered to be a weapon, which might inflict bodily harm, or be used to threaten the health and safety of members of the college community, is prohibited. This does not apply to members of law enforcement agencies; such as, police officers or other security personnel.

Violations of the *Standards of Student Conduct* may lead to probation, suspension, or dismissal from the College in accordance with the disciplinary action adopted by the governing board of Glendale Community College and administered through a system of due process.

#### **Attendance and Punctuality**

Students are expected to attend all classes regularly. There are no authorized cuts from classes, and irregular attendance may result in exclusion from classes or from college. Although absence may be unavoidable, such as subpoena requirements, illness of the student or serious illness or death of a member of the family, all work missed must be satisfactorily made up and responsibility for making up this work rests with the student.

#### **Temporary Leave of Absence**

Petition forms for a personal leave of absence may be obtained from the student's counselor. If a leave is for a school-sponsored activity, the faculty member in charge will issue the Petition.

#### **Withdrawal from Class or College**

Once a student has registered for a class, he is not considered to have withdrawn from this class unless a Petition for Change of Program, a Request to Drop Class, or a Petition for Honorable Dismissal, which is the withdrawal from College, has been filed. These petitions are obtained from the student's counselor or the Office of Admissions and Records. Failure to attend classes does not constitute a regular withdrawal, and may result in an "F" or "WU" grade in the course. The date of withdrawal is when the completed Petition is received in the Office of Admissions and Records, not the last date of attendance in classes.

Students withdrawing from class or from college during the first 11 instructional weeks of a semester course are assigned a no-penalty "W" grade. Students withdrawing from class or from college during the 12th instructional week and until the end of the week preceding the final examination period will be assigned a "W" grade if passing, and a "WF" grade if not passing. For classes scheduled for less than one semester the last day to withdraw from the class and receive either a "W" grade if passing or a "WF" grade if failing, is the Friday of the week preceding the last week of instruction. Petitions must be received by the Office of Admissions and Records by this date.

For classes scheduled for less than one semester, the no-penalty "W" withdrawal periods are as follows:

- a 9-week course—6 weeks
- an 8-week course—5 weeks
- a 6-week course—4 weeks
- a 3-week course—2 weeks

**Physical Education** Each first-time college student is required to enroll, to attend regularly, and to maintain a satisfactory record in physical education activity for his first two consecutive semesters of attendance at the Glendale Community College, except that a person may be exempt upon presentation of evidence that he (1) has attained the age of 21 years, or (2) is registered for 8 units or less, or (3) has a medical excuse on file, (4) is enrolled in special programs such as extended day only, licensed vocational nursing or block-unit occupational programs. It is recommended that a variety of activities be taken during a student's attendance at Glendale Community College. It may be possible to repeat the same class for more than one semester. Check listing of Graduation Requirements elsewhere in this Catalog for physical education requirement for the Associate in Arts Degree.

**Final Examinations** At the end of each semester a special Final Examination Schedule is followed. Students must attend all classes in accordance with the special schedule for that period. This arrangement permits the giving of Final Examinations in those classes which require them and the completion of the instructional program in the other classes. No student shall be excused from taking a Final Examination where such is required as part of a course.

**Petitions Procedure** A student feeling that in his case there are circumstances warranting special consideration for adjustment or deviation from established procedures and policies of the College may file a petition with the Executive Committee.

**Clearance of Obligations** All obligations to the College must be met before a student's record may be considered clear.

**Forwarding of Transcripts** Upon the request of a student, a transcript of the student's record at Glendale Community College will be forwarded to a college or university, individual, firm, etc.

**Associate in Arts Degree**

The Associate in Arts Degree is granted to persons who file in the Office of Admissions and Records a Petition for Graduation and who satisfactorily complete a college curriculum of 60 semester units with a "C" average and a minimum of 12 units taken at Glendale Community College, including all of the following:

1. A major leading to a well-defined objective. This requirement may be met by completing a 20 semester unit major in Humanities, or Science, or Applied Arts, or by completing the Glendale Community College general education breadth requirements for admission to the California State University and Colleges. See Page 259.
 

HUMANITIES Fine Arts Language Arts Social Sciences	SCIENCE Biology Mathematics Physical Science	<del>APPLIED ARTS</del> Allied Health Business ✓ Health Home Arts Technology
---	---	---
2. Two units in American Institutions are required. Courses which satisfy this requirement include History 117-118\*; Political Science 101, 105, 151\*\*\*; Social Science 131-132\*\*.
3. One unit in State and Local Government is required. Courses which satisfy this requirement include Political Science, 106, 151\*\*\*; Social Science 131-132\*\*.
4. Two units in American History are required. Courses which satisfy this requirement include Economics 111; History 110, 117-118\*, 151; Social Science 131-132\*\*.
5. Six units in oral and/or written English are required. Courses which satisfy this requirement include English 101, 102, 120, 121, 122, 123, 125, 126, 128; 131, 132, 190, 191, 192, 198, 199 (English 199 used for four of the six required units); Business 145, 147; Journalism 102; Management 111, 112; and Speech 101, 121.
6. Satisfactory evidence of proficiency in mathematics must be given. This evidence may be a satisfactory score on the Mathematics Proficiency Examination, or a passing grade in any mathematics course taken at any accredited college.
7. Two semester units of community and personal hygiene must be completed. Courses which satisfy this requirement include Health 103 or 104 or equivalent.
8. Two units of physical education activity classes must be completed unless exempted by established policy.
9. First-aid instruction. Health 101 satisfies this requirement.
10. Fifteen semester units of general education including at least one course in each of the following areas:
  - a. Natural Science. At least one course from physical science or from



biological science must be selected: Anthropology 101; Astronomy 101, 102; Aviation and Transportation 122; Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137; Chemistry 101, 102, 103, 105, 106, 107, 110, 115, 141, 143; Geography 101; Geology 101, 102, 103, 104, 105, 110; Home Arts 125; Mathematics 101, 102, 103, 104, 105, 106, 130, 138; Mineralogy 101, 141; Oceanography 115; Paleontology 101; Physics 101, 102, 103, 105, 106, 110, 111; Physical Science 131; Technical Education 145.

- a.b. Social Science. Courses completed to satisfy requirements 2, 3, and 4 may not be used to fulfill the requirement in Social Science. At least one course from the Social Sciences must be selected: Anthropology 102, 103; Economics 101, 102, 105, 111; Geography 102, 105; History 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, 117, 118, 119, 120, 151; Political Science 101, 102, 103, 104, 105, 106, 108, 110, 111, 151; Psychology 101, 102, 110, 111, 112, 131; Social Science 102, 103, 121, 122, 131-132; Sociology 101, 102, 105.
- c. Humanities. Courses completed to satisfy the requirements in 5 may not be used to fulfill requirements in Humanities. At least one course from the Humanities must be selected: Art 101, 102, 103, 106, 107, 108, 110, 111, 180; English 105, 106, 109, 110, 115, 121, 122, 123, 125, 126, 127, 128, 198; French 125, 126; International Field Study 148; Music 101, 104, 105, 106, 107, 108, 109, 114, 120, 125, 126, 138; National Field Study 148; Philosophy 101, 113, 114, 116, 119, 120; Spanish 124, 125, 126; Theatre Arts 103, 104, 105.
- d. Learning Skills. Courses completed to satisfy the requirements in 5 may not be used to fulfill requirements in learning Skills. At least one course from Learning Skills must be selected: Art 160, 161, 162; Business 101, 102, 111, 112, 122, 128, 129, 137, 138, 145, 146, 147, 161; Economics 107; English 101, 102, 120, 131, 132, 180, 190, 191, 192, 199; Food Service 113-119; Food Service Management 211-214; French 111; Physical Education 125, 142, 160, 184, 224, 235, 282, 285, 289; Home Arts 105, 123; Journalism 101, 102; Management 111, 112; Mathematics 109, 140, 141, 150; Philosophy 117; Social Science 141; Spanish 111, 115, 116, 146; Speech 101, 121; Technical Education 143, 144; All Foreign Languages (101 through 111 only).

*\*This course satisfies requirements 2 and 4.*

*\*\*This course satisfies requirements 2, 3, and 4, (Both Social Science 131 and 132, must be completed to satisfy requirements 2, 3, and 4.)*

*\*\*\*This course satisfies 2 and 3.*

#### Associate in Science Degree

The Associate in Science Degree is granted to persons who have completed satisfactorily a minimum of sixty (60) semester hours of work which shall satisfy all the requirements for an Associate in Arts Degree and shall include a major of twenty-four (24) units or more in the fields of engineering, physical and biological science, or occupational curriculums which has been approved by the appropriate Division.

The Certificate Programs which may serve as a major for the Associate in Science Degree are found on page 50.

Curriculums which may lead to the Associate in Arts Degree\* are the Certificate Programs and the Transfer Programs.

### Certificate Programs

Certificate Programs are primarily business and technical programs for students desiring education beyond high school. These programs provide opportunities for students to prepare themselves for a wide variety of careers and to enrich their cultural backgrounds. In most cases these programs are planned without regard to transfer schools; however, many courses are transferable to four-year colleges or universities if students change their educational goals.

Certificates of Completion are issued to those requesting them who complete the required Certificate courses with an average grade of "C" or better though they are strongly urged to meet the graduation requirements for the Associate in Arts Degree.\*

1. Certificates of Completion shall be issued upon request by the Office of Admissions and Records to students who qualify for them by completing one of the *occupation-centered curriculums*. The student must have an average grade of "C" in the required occupational courses.
2. To be eligible for the Certificate a student must *complete a minimum of 24 units of college work including the required courses*.
3. At least twelve units of the required courses must be completed in residence at Glendale Community College.

### Transfer Programs

Transfer Programs are for students planning to transfer to a university or a four-year college with full junior standing. Students planning to transfer with junior standing may, with thoughtful planning, complete the graduation requirements for the Associate in Arts Degree\* by taking courses in the lower division which will also satisfy the Baccalaureate Degree requirements and in addition should fulfill the following conditions: (1) must remove any existing entrance deficiencies in grades or subject matter required by the senior college and they must maintain the grades or subject matter required by the senior college and they must maintain the grade point average specified by it; (2) they should complete the lower division requirements prescribed by the senior college for all students; (3) they should satisfy the lower division major field requirements prescribed by the senior college; (4) they must make a satisfactory score on a Scholastic Aptitude Test, if this is required by the transfer college. Those planning to make the transfer without being admitted to junior standing need to complete only the first requirement listed above and to have made satisfactory progress on the others.

For the most part, the suggested courses for transfer programs are based upon the requirements and recommendations of the University of California and the California State University and Colleges. A student planning to transfer to a different institution of higher learning should study carefully the lower division requirements of that school. The lower division requirements of colleges of most frequent transfer are printed under General Education Requirements For Graduation From Colleges and Universities in the section of this Catalog describing programs for transfer students.

\*For Graduation Requirements, see page 47.

Certificate Programs which can be completed at Glendale Community College.

**Administration of Justice**

This curriculum in Administration of Justice is designed for students interested in law enforcement, court procedures, and related fields as well as those students who wish to improve themselves in positions in the several fields of law enforcement. A total of at least 24 units is required for the Certificate of Completion. The basic core consists of the following courses: Administration of Justice 101, 103, 104, 107, 110, and 120.

A minimum of 20 units must be selected from the following courses: Administration of Justice 101, 103, 104, 106, 107, 108, 110, 112, 114, 116, 117, 118, 120, 122, 124, 126, 129, 130, 132, 134, 136.

**Advertising Art**

Training in art may lead to many types of employment. Positions available and opportunities for advancement will largely be determined by the background of training and the ability of the applicant. The curriculum listed below is designed to prepare the student for employment in the commercial field. Those majoring in the field of advertising art will find it advantageous to know how to type. Students transferring to professional art schools for advanced training may receive credit for courses taken at Glendale Community College.

These courses are required: Art 103, 113, 114, 115, 116, 117, 122, 123 and 3 units from either Art 101 or Art 102.

A minimum of four units must be selected from the following: Art 101 or 102, 118, 124, 125, 134, 138, 140, 142, 144.  
Photography 107

**Architectural Drafting  
and Design**

For students transferring to the University in the Architectural Curriculum and a two-year curriculum to prepare a student to enter employment as an architectural draftsman in the building construction field. The program follows the employment requirements of Southern California firms in the building trades. Fundamentals of architectural design and current drafting practice are stressed.

These courses are required: Architecture 101, 102, 105, 110, 111, 112; Art 116

Elective units from the following list are recommended: Art 113, 115, 117  
Architecture 103

Cooperative Education 102  
 English 131 or 132  
 Materials and Processes 146  
 Mathematics 101-102  
 Metals 115  
 Technical Education 143-144, 145

**Architectural Engineering Drafting  
 and Design (Commercial)**

The two-year curriculum prepares a student to enter employment as an architectural draftsman in the architects' offices or transfer to a university. The program follows the recommendations of the Architectural Drafting Advisory Committee, and meets the employment requirements of Southern California architectural firms. The course covers basic principles of architectural revision, coordination, detailing and design, architectural engineering systems, and specifications for reinforced concrete, concrete block, masonry and steel. Architectural strength of materials is integrated with a class project which includes the preparation of a complete set of working drawings from given specifications. This project stresses various presentation media, and current architectural professional practices.

These courses are required: Architecture 105, 191, 192, 194  
 Art 116

Mathematics 101-102 or Technical Education 143-144

Elective units from the following list are recommended: Architecture 103  
 Art 111, 113, 115, 117

Cooperative Education 102  
 English 131 or 132  
 Materials and Processes 146  
 Metals 115  
 Technical Education 145

**Art** For the student who is interested in art as a career, this curriculum will prepare him for advanced work in an art school, or for further intensive work in the field of his choice. If the student plans to transfer to a university he should consult the catalog of that university for requirements.

These courses are required: Art 103, 113, 114, 115, 116, 117

A minimum of 11 units must be selected from the following: Art 101 or Art 102 (3 units) and Art 118, additional units from any remaining art courses.

**Aviation and Transportation  
 Aviation Administration**

*Aviation Administration* is for those who wish to enter Civil Aviation work as Clerks, Agents, Station and Traffic Managers, or fixed base operators.

These courses are required: Aviation and Transportation 120, 128, 130  
 Business 105, 145, 147 or equivalent  
 Psychology 110

A minimum of eight units must be selected from the following:  
 Aviation and Transportation 110, 111, 112, 113, 121, 122, 123, 124, 126  
 Business 175, 177, 241  
 Cooperative Education 102

**Aviation and Transportation  
Flight Attendant**

*Flight Attendant* is for those who wish to become flight attendants. The airlines differ in specific requirements, but the following are typical: age 21-26 years; weight 100-125 pounds; height 62-66 inches; vision 20-40 or better; and two years of college. Applicants must be neat in appearance, interested in people and their travel problems, acceptable personally and physically.

*Note:* Students following the Flight Attendant Program should take Aviation and Transportation 129 prior to Aviation and Transportation 120.

These courses are required: Aviation and Transportation 120, 129, 130  
Home Arts 133  
Psychology 110  
Speech 101 or Speech 121

A minimum of nine units must be selected from the following:  
Aviation and Transportation 110, 111, 122, 123, 126, 128  
Business 241  
Cooperative Education 102  
Geography 105

**Aviation and Transportation—Air-  
craft Powerplant Maintenance and  
Overhaul (FAA Powerplant License)**

These courses are required: Aviation and Transportation 141, 142, 143, 144

**Aviation and Transportation—  
Aircraft and Powerplant  
Maintenance and Overhaul  
(FAA Powerplant and  
Air Frame License)**

This program is designed for those students who wish to complete the work for the "A" and "P" certificates in the shortest possible time. Required courses to be taken in this order: Aviation and Transportation 141, 142, 143, 144, 145, 146.

*Note:* The Associate Degree may be obtained in approximately three years along with the combined "A" and "P" course which requires four semesters by taking additional subjects required for graduation during the last two semesters.

**Aviation and Transportation  
Pilot Training**

Training offered in this field:

1. Instruction for those who wish to complete two years of college to become eligible to enter civil aviation as a professional pilot.
2. Basic Pilot Training: Prepares the student for the FAA Private Pilot Airplane written examination for the Private Pilots License. Required course is Aviation and Transportation 120. Aviation and Transportation 110 and 111 are also suggested.
3. Advanced Pilot Training: A program designed to give the Private Pilot adequate aeronautical knowledge and experience necessary to enter the field as a Commercial Pilot with an Instrument Rating as his career. To enter this program, it is required the student satisfactorily complete Aviation and Transportation 120, or possess a Private Pilots Certificate.

These courses are required: Aviation and Transportation 120, 121, 122, 123, 124, 125, 126, 127

A minimum of 3 units must be selected from the following: Aviation and Transportation 110, 111, 112, 113, 115, 116, 128, 130, 131  
 Technical Education 143 or equivalent  
 Recommended elective: cooperative Education 102

**Business—Accounting**

The accounting curriculum provides comprehensive training for career employment as accountants, both in private business firms and in the public accounting field, as well as in civil service positions. Students who contemplate meeting the additional requirement for the CPA certificate should consult with their accounting instructor or contact the State Board of Accountancy for further information.

Students who have a definite interest in an accounting career, and are willing to make the intensive study necessary in a two-year preparation, can obtain the training to qualify for positions of responsibility in business enterprise, or governmental work. This curriculum also provides a broad general education in the field of business administration.

These courses are required: Business 101, 102, 122 and either Business 128 or 129, 141, 143, 151, 161  
 Business 145 or 146 or English 101 or English 120  
 Economics 101-102  
 Mathematics 101

Elective units from the following list are recommended: Business 111, 124, 127, 130, 135, 137, 138, 147, 149, 157, 162, 257  
 Cooperative Education 102  
 Economics 107

**Business-Banking**

**Banking Credit Certificate**

This certificate is designed for banking students who are pursuing a career in the lending segment of banking operations. The program is approved by the American Institute of Banking and A.I.B. courses taken elsewhere are accepted at Glendale Community College.

These courses are required: Business 101 and 102, 122, 161, 180; Economics 101 or 105; Business 117 or 111, Business 145 or 146 or 147 or English 101 or 120; Business 151, 181, 182.

Recommended elective: Cooperative Education 102

**Banking and Finance Certificate**

The Banking and Finance program is designed for students who are pursuing a career in a financial institution such as a bank, savings and loan, credit union, thrift company or a finance company. This program is approved by the American Institute of Banking and A.I.B. courses taken elsewhere are accepted at Glendale Community College.

These courses are required: Business 101 and 102 or 105 and 106, 122, 161, 180; Economics 101 or 105; Business 117 or 111, Business 145 or 146 or English 101 or 120.

Recommended elective: Cooperative Education 102

### **Banking Management Certificate**

This is a supervisory certificate designed for students who are interested in banking operations. The emphasis is placed on management techniques as they relate to banking and other financial institutions.

These courses are required: Business 101 and 102 or 105 and 106, 122, 161, 180; Economics 101 or 105; Business 117 or 111, Business 145 or 146 or English 101 or 120; Business 147 or Management 111 or 112; Management 101, 103 or 104 or 105.

Recommended elective: Cooperative Education 102

### **Business—Bookkeeping**

The bookkeeping curriculum has been designed for students who wish to become bookkeepers in private industry or government service. It is so arranged that students forced to terminate their schooling after completing one, two, or three semesters will have acquired skills necessary for employment. Students who wish to become public accountants should take the accounting curriculum.

These courses are required: Business 101 or 105, 102 or 106, 122, 141, 143, 161

Business 145 or 146 or English 101 or English 120  
Business 117 or Mathematics 101

Elective units from the following list are recommended:

Business 119, 124, 128, 129, 130, 147, 151, 153, 155, 157, 171, 241, 242, 257  
Cooperative Education 102  
Economics 105

### **Business—Clerical**

This curriculum is designed for students who wish to prepare for office work in commercial, industrial, and financial companies or in government service as typists, office machine operators, filing clerks, mailing clerks, or receptionists. The subject matter is designed to develop operational, communicational, and personal skills required in clerical positions.

These courses are required:

Business 105 or 101, 117, 122, 143,  
145 or 146, 155, 157 or 201 (4 units), 231, 233,  
235, 243, 245

Elective units from the following list are recommended:

Business 106 or 102, 119, 141,  
147, 161 or 165, 175, 246  
Cooperative Education 102  
Home Arts 133  
Psychology 110

### **Business—Data Processing**

This curriculum is designed for those students interested in business data processing as an occupational area. Students planning to enter this field to become specialists or technicians should have a comprehensive



background in general business, including accounting, with specific emphasis on computer principles and business data processing applications. With the continuing expansion of data processing in business and industry, students who successfully complete this curriculum will have many opportunities for careers in this area.

These courses are required: Business 101 or 105, 122, 124, 128, 130, 135, 137, 138, 141

Business 111 or Mathematics 101 or 141

Elective units from the following list are recommended:

Business 129, 102 or 106, 257 or 241, 143, 112, 145 or 146, 147, 161

Cooperative Education 102

Economics 107

Philosophy 117

**Business—Distributive Education**

This curriculum is designed for those who plan careers in activities; such as marketing, marketing research, public relations, selling, retail selling, retail store management, advertising, and a sole proprietorship. The suggested curriculum offers a general education in business administration as well as basic training in the specialty.

These courses are required: Business 101 or 105, 117, 122, 141, 161, 171, 173, 177, Speech 121

Elective units from the following list are recommended: Business 102 or 106, 119, 128, 145 or 146, 147, 175, 257

Cooperative Education 102

Mathematics 101

A certificate will also be granted by the Sales and Marketing Association of Los Angeles for the completion of the above.

**Business—General**

The general business curriculum is intended for students who prefer a broad, general education in the field of business administration, or for those who have not decided upon a particular specialization within the field of business. Since it constitutes an exploratory experience, many such students will develop an interest in one of the specialized business curriculums. If so, they are encouraged to make a change in program (with the counselor's help) during the first year to avoid loss of time or credit.

These courses are required: Business 105 or 101, 122, 141, 151 or 153, 155, 161, 173 or 175

Business 145 or 146 or English 101 or English 120

Business 117 or Mathematics 101

Elective units from the following list are recommended: Business 106 or 102, 119, 128, 143, 147, 157, 162 or 165, 171, 177, 257

Cooperative Education 102

Economics 105

Real Estate 101



**Business—Insurance** The several types of organizations to be found in the insurance field offer many specialized opportunities for individual proprietorship.

In the following insurance curriculum attention is given to the license requirements in California. The State requires that solicitors, agents, and brokers pass examinations before they can operate in their respective fields. An examination is given for life insurance and another examination for all other types of insurance.

These courses are required: Business 101 or 105, 117, 122, 141, 143, 149, 153, 155, 161 or 165, 175

Business 145 or 146 or English 101 or English 120

Elective units from the following list are recommended: Business 102 or 106, 119, 128, 129, 130, 147, 157, 171, 177, 257

Cooperative Education 102

Real Estate 101, 105

**Business—Medical Assistant  
(Administrative)** This curriculum is designed for those students who are preparing to become administrative medical assistants in offices of physicians, medical clinics, hospitals, and allied facilities.

These courses are required: Biology 120 or 121

Business 143, 145 or 146, 221, 222, 225, 237, 243

Psychology 101 or 110

Elective units from the following list are recommended: Biology 112

Business 101 or 105, 117, 122, 147, 155, 161 or 165

Cooperative Education 102

Home Arts 133

Sociology 101, 102

**Business—Real Estate** Many job opportunities exist in the larger real estate offices, in title insurance departments, in banks, and in various departments of governmental agencies. The real estate field also offers excellent opportunities for individual proprietorship. Such opportunities and advancement depend upon basic training, as well as upon individual initiative and experience in the field.

In the following real estate curriculum, special attention is given to the license requirements in California. The State requires that salesmen and brokers pass examinations before they may work in their respective fields. Before applicants may take the State examination for the broker's license, they must have completed college credit courses in Real Estate 105, 107, 109, and 111 in addition to (1) either Business 101, Business 105, or Real Estate 103 and (2) Real Estate 101, Business 161, or Real Estate 113. (Real Estate 101 may not be taken for college credit after the completion of any other Real Estate course.)

Glendale Community College will grant a Certificate in Real Estate to those who satisfactorily complete at least 18 units chosen from the list of required real estate courses and any additional recommended courses for a total of twenty-four units in all.

Required courses are to be chosen from the following:  
 Real Estate 101, 103, 105, 107, 109, 111, 113, and 115.

Recommended courses include the following: Business 102 or 106, 117, 141, 147, 149, 151, 153, 155, 161, 162, 173, 175, 241, 242  
 Business 145 or English 101 or English 102  
 Cooperative Education 102  
 Economics 101, 102  
 Real Estate 117

**Business—Secretary, Executive**

This curriculum is designed for those students who wish to prepare for positions as professional secretaries. Such opportunities exist in commercial, industrial, and financial companies, as well as in government service.

These courses are required: Business 105 or 101, 117, 145 or 146, 147, 202 (3 units), 203, 211\*, 231, 233, 235, 243, 245

Elective units from the following list are recommended: Business 106 or 102, 119, 122, 141, 143, 151, 153, 155, 161, 162 or 165, 210 or 211, 246  
 Cooperative Education 102  
 Economics 105  
 Home Arts 133  
 Psychology 101 or 110

\*Minimum speed requirement of 100 wpm

**Business—Secretary, General**

This curriculum is planned for students who wish to prepare for positions as secretaries. Upon completion of the curriculum, graduates are equipped to enter any of the major fields of business or government service.

These courses are required: Business 105 or 101, 117, 119, 143, 145 or 146, 147, 202 (3 units), 211\*, 231, 233, 235, 243, 245, 246

\*Minimum speed requirement of 80 wpm

Elective units from the following list are recommended: Business 106 or 102, 122, 141, 155, 161 or 165, 203, 210 or 211  
 Cooperative Education 102  
 Home Arts 133  
 Psychology 101 or 110

**Business—Secretary, Legal**

This curriculum is designed for those students who are preparing for a secretarial position in a law firm, in a legal department in business, or in government organizations.

These courses are required: Business 105 or 101, 145 or 146, 161, 202 (3 units), 203, 207, 208, 211\*, 231, 233, 235, 243, 245

\*Minimum speed requirement of 100 wpm

Elective units from the following list are recommended: Business 106 or 102, 117, 122, 141, 143, 147, 151, 155, 162, 210 or 211, 236, 246, 249  
 Cooperative Education 102  
 Economics 105

- Home Arts 133  
 Psychology 101 or 110  
 Real Estate 101
- Business—Secretary, Medical** This curriculum is designed for those students who are preparing for a position in offices of physicians, medical clinics, hospitals, and allied facilities.
- These courses are required: Biology 121 or 120  
 Business 105 or 101, 145 or 146, 202 (3 units), 211\*, 221, 222, 225, 235, 237, 243, 245  
 \*Minimum speed requirement of 80 wpm
- Elective units from the following list are recommended: Biology 112, Business 117, 122, 143, 147, 155, 161 or 165, 203, 210 or 211, 246  
 Cooperative Education 102  
 Home Arts 133  
 Psychology 101  
 Sociology 101, 102
- Business—Supervision** A training program for foremen, supervisors, leadmen, and other group leaders in business and industry. A Certificate of Completion in Supervision will be granted those who satisfactorily complete a 24-unit program as outlined. Students may select electives in specialized fields; such as, technical drafting, business, electronics and technical mathematics.
- A minimum of 20 units must be selected from the following courses: Management 101, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 115  
 Recommended elective: Cooperative Education 102
- Cosmetology** Glendale Community College has contracted with two Glendale beauty colleges for the provision of cosmetology instruction to registered Glendale Community College men and women students. The college pays the student's full tuition expense at the beauty colleges. The completion of Cosmetology 111, 112, 113, and 114 provides 1,600 hours of theory and practice required by the State of California Cosmetology Act and by the Board of Cosmetology for licensing as a Cosmetologist. The 1,600 hours may be completed in four semesters; or a combination of three semesters and one ten-week summer session; or a combination of two semesters and two ten-week summer sessions.
- These courses are required: Cosmetology 111, 112, 113, 114  
 Recommended elective: Cooperative Education 102
- Draftsman (Junior Engineer)** This course of study provides basic and advanced training in Technical Drawing. It covers the fundamentals of all types of drafting. The work is so organized that the student learns the manipulative skills, layout procedures, and drafting techniques required of the professional draftsman or junior engineer. A basic course in mechanics, strength of materials and shop processes, physics, electronics, structural and machine design is integrated within the framework of the two years of preparation.

These courses are required: Drafting 131, 132, 133, 134  
 Materials and Processes 146  
 Technical Education 143, 144 or equivalent

Elective units from the following list are recommended: Cooperative Education 102  
 Electronics 175, 177  
 English 131, 132  
 Machine Shop 101, 107, 108  
 Metals 115  
 Technical Education 145

**Electronics Technician**

This curriculum is designed to familiarize students with essentials of electronics. The program consists of both classroom participation which familiarizes the student with electronic theory and a laboratory portion where the student learns how to assemble circuits and use electronic equipment. The curriculum is constantly being updated to reflect the rapid changes in industry. Upon completion the student should have developed techniques and skills suitable for entry into industry as a technician or to transfer to a four-year institution.

These courses are required: Business 128  
 Electronics 171, 172, 173, 174  
 Technical Education 143, 144 or equivalent

A minimum of fifteen units must be selected from the following:

Business 129  
 Drafting 129 or equivalent  
 Electronics 125  
 English 101, 102, 131, 132  
 Material and Processes 146  
 Mathematics 102, 103  
 Speech 101 or Speech 121  
 Technical Education 145

For employed students taking Extended Day work the following courses are recommended: Cooperative Education 102  
 Electronics 177, 178.

**Engineer—Junior Engineer  
 (see Draftsman)**

**Fashion Design**

A curriculum designed to prepare persons for careers in the clothing industry includes training as pattern makers, and designers, layout workers, sample makers, inspectors, drapers, fitters, cutters and finishers. Stresses knowledge of textile merchandise and selling techniques of fashion goods. Ample opportunity exists for students majoring in this field to obtain, through a wise selection of electives, a broad and liberal education.

These courses are required: Art 113  
 Business 145  
 Home Arts 105, 117, 118, 119, 120, 122, 123, 133

The following courses are recommended:

Cooperative Education 102

Home Arts 124

**Food Service** The Food Service Certificate Program is a two year curriculum designed to prepare students for employment in various positions of the food industry. The courses will provide comprehensive knowledge of quantity cooking, operational and communicational skills essential for a food service career.

These courses are required: Food Service 111, 113, 114, 115, 116, 117.

Elective Units: Cooperative Education 102; Food Service 112, 118, 119; Home Arts 133; and Psychology 101.

**Food Service Management** A Certificate of Food Management will be granted to those who satisfactorily complete a 24-unit program from the following:

These courses are required: Food Service 111, 113, 114, 116; Food Service Management 211, 212, 213, 214.

Elective units from the following are recommended:

Cooperative Education 102; Food Service 112, 113, 117, 119  
Psychology 101; and Management 101

**Human Services Aide** I. Educational Services Option Specializing in: (1) Instructional Assisting (2) Special Education (3) Bi-lingual Education (4) Early Childhood  
II. Community Social Services Option

A certificate program designed to train persons to work at a paraprofessional level in community agencies; such as, education, probation, social service, and health. Core curriculum will be 26 units in the areas of English, paraprofessional training, group process and fieldwork. PLEASE CONSULT YOUR COUNSELOR FOR SPECIFIC COURSES.

**Journalism** The two-year journalism curriculum is designed to give students who are planning to enter the journalism field immediately after graduation from a two-year college program which offers a background in general education and the opportunity to learn the basic techniques required for newspaper work.

These courses are required: English 101, 102, 105, 106  
Journalism 102, 103, 104

A minimum of three units must be selected from the following: Economics 101  
History 107, 108, 109, 110  
Political Science 101

Recommended elective: Cooperative Education 102

**Library Assistant** This program is for the student who wishes to prepare for work as a clerical assistant in a library of a college, high school, or public or private agency. Students seeking employment in industrial and research libraries should choose electives and required course options which concentrate on the specialty of the

library. Students wishing to become professional librarians should follow the Librarianship transfer curriculum. If course prerequisites have been met, students undecided between professional and non-professional careers should choose electives and required options from the curriculum.

These courses are required: Art 101 or 102

Biology 122

Business 242

English 101

History 110 or 117-118 or Social Science 131-132

Psychology 101 or 110

Physical Science 131

\*Business 117 or Mathematics 150

Practical experience as a student assistant in the Glendale Community College Library for two semesters.

\*A satisfactory score on the Mathematics Proficiency Examination may be substituted.

### **Manufacturing Technology**

Students seeking careers in manufacturing engineering, tool engineering, or tool design at the professional level should investigate this training program.

These courses are required: English 101 or 120 or 191

Machine Shop 101, 102, 103

Mathematics 103, 104

Physics 105, 106

Speech 101

Elective units from the following list are recommended: Chemistry 101

Cooperative Education 102

Economics 101

History 110

Machine Shop 104, 109

Political Science 101

Psychology 101

### **Nursery School**

The Nursery School curriculum is designed to prepare men and women to teach in nursery schools, Head Start Child Development Centers, pre-school classes, and day-care centers.

These courses are required: Family and Consumer Studies 135, 136, 138, 140, 141, 142

Electives (6 units) may be selected from any course listed in the current catalog.

Recommended elective: Cooperative Education 102

### **Nursing, Vocational**

A twelve month program in vocational nursing. Satisfactory completion of the program leads to the Glendale Community College Vocational Nursing Pin and Certificate, and to the California State Board Examinations in Vocational Nursing.

These courses are required: Allied Health 101, 103, 105, 107, 110, 112, 114, 116, 118, 120, 130, 132, 134

**Office Work (See Business Certificate Programs)**

**Photography**

Designed to prepare a student to enter the field as a photographer in advertising design, studio work, as a news photographer, or a free-lance photographer. Students planning to enter advertising or studio work would find it advantageous to elect courses in art, if planning to specialize in technical work, they should take courses in chemistry and physics; if wishing to become newspaper photographers, they would profit by courses in journalism; if interested in graphic art, courses in technical graphics are recommended.

These courses are required: Art 113  
Photography 101, 102, 103, 105, 107, 108, 109

Elective units from the following list are recommended: Art 115, 116, 122  
Chemistry 141 or 143  
Cooperative Education 102  
English 101, 102  
Journalism 101  
Physics 105, 106  
Social Science 131-132

**Real Estate (See Business)**

**Recreation Leadership**

This program is designed for the man or woman who plans to assist a graduate manager with the many and diverse projects of civic and/or church related recreation programs.

These courses are required: Health 101, 103; Physical Education 120; Recreation Leadership 109

Badminton, Gymnastics, Archery, Tennis, Volleyball, Basketball, Touch Football, Dance

A minimum of 13 units must be selected from the following:

Administration of Justice 101 or 118  
Art 101 or 102 or 103 or 106  
Biology 121, 122  
Music 120, 130 or 131  
Psychology 101 or 110  
Speech 101 or 121

Recommended elective: Cooperative Education 102

**Supervision (See Business)**

**Teacher Aide**

This program is designed for the person who wishes to be employed helping teachers with records, typing, duplicating, filing, and classroom management generally.

These courses are required: Business 233, 242  
English 120 or 101

Family and Consumer Studies 135, 136  
 Social Science 121 or 131  
 Elective units from the following are recommended:  
 Social Science 101, 102

A minimum of seven units must be selected from any course listed in the current catalog.

Recommended elective: Cooperative Education 102

**Technical Graphics**

Technical graphics is a visual communication process of preparing art work for our existing age of science and technology. In today's society commercial art and graphics are undergoing massive changes and industry has an ever-growing demand for broader training to fill its varied needs, ranging from drafting to pure artistic illustration and design. This curriculum is designed to prepare students to make pictorial renderings, drawings, brochures, publications, exhibits and models. The need for technical graphics personnel and visual communicators who can select the best approach to design graphic communications is great. Hence, this program places emphasis on current methods and techniques used by industrial artists, illustrators, and designers.

These courses are required: Graphics 165, 166, 167, 168

A minimum of 10 units must be selected from the following: Art 113, 116, 122  
 Engineering 103 or Architecture 105  
 English 131  
 Graphics 169, 172  
 Photography 101  
 Printing 101  
 Technical Education 145

Recommended elective: Cooperative Education 102

**Technical Machine Shop  
 (Machinist)**

The two-year curriculum is designed to prepare students for positions in industry. This training should prove particularly beneficial in such occupations as machinist, tool and die maker, tool designer, production planner, tool planner, draftsman, and other manufacturing engineering positions. Completion of the two years will satisfy pre-apprenticeship requirements.

These courses are required: Machine Shop 101, 102, 103, 104

Elective units from the following list are recommended:  
 Cooperative Education 102  
 Drafting 129 or equivalent  
 English 131, 132  
 Machine Shop 109  
 Materials and Processes 146  
 Mathematics 150; Technical Education 143, or equivalent  
 Technical Education 145  
 Welding 117, 118



**Television Repair** A curriculum designed to train persons in the fundamental skills and technical knowledge needed by the television repair serviceman. A total of 24 units as indicated below must be earned to qualify for the Certificate. (In case experience is offered in lieu of any of the four required Television Repair courses, the course itself need not be taken, but the required number of units must be taken).

These courses are required: Television Repair 101,

A minimum of six units must be selected from the following:

Drafting 129, 136, 137, 138, 139

English 101, 102, 105, 106, 120, 131, 132

Materials and Processes 146

Mathematics 101, 102, 103, 104, 105, 106, 150

Metals 115

Technical Education 143, 144, 145

Welding 117, 118

Recommended elective: Cooperative Education 102

**Theater Arts** A curriculum designed to train students for the professional theater, fields of radio, television, stage, and motion pictures. The following program is intended primarily for students who plan to enter the profession immediately upon completion of the two-year program at Glendale Community College.

These courses are required: English 101 or 120 or 191

Theater Arts 103, 104, 105, 121, 122, 131, 134

Elective units from the following list are recommended:

English 102, 125, 126

Graphics 165

Theater Arts 109, 135

**Welding, Occupational  
(Combination Welder)** Occupational welding is a two-year program designed to prepare the student for entry into the welding field as a combination welder, skilled in metallic arc, tungsten inert gas, and oxy-acetylene welding of common metals. The emphasis will be on obtaining a welding certification at the completion of the required courses.

These courses are required: Welding 121, 122, 123, 124

Elective units from the following list are recommended:

Drafting 129 or equivalent

English 131, 132

Machine Shop 101 or Machine Shop 105

Materials and Processes 146

Mathematics 150

Technical Education 145

Transfer Programs which can be completed at Glendale Community College and lead to junior standing at a University or a four-year College.

**Accounting University of California at Los Angeles**

*Undergraduate:* A student preparing for a career in public accounting (CPA) or management accounting remains in the College of Letters and Science for his bachelor's degree work, selecting a major in a department in that college, such as economics or political science, that recognizes certain management and accounting courses as part of the major. The baccalaureate program is followed by the Professional Master's Program in the Graduate School of Management which leads to the MBA degree. The Professional Master's Program provides a balance between broad background preparation in management and specialization in a professional field of concentration; such as, accounting.

Students selecting this combination of programs should consult with an adviser in the Graduate School of Management when selecting management and accounting courses as part of his or her bachelor's program.

**Administration of Justice San Jose State University**

Administration of Justice courses which are acceptable for transfer credit at San Jose State University to meet major requirements for the Bachelor of Science Degree in Administration of Justice are Administration of Justice 101, 103, 116. Acceptable electives are Administration of Justice 107, 126. The Administration of Justice major who plans upon graduation to continue his work at San Jose State should limit his program to the courses listed above. In addition, he should complete the General Education pattern at Glendale Community College.

**Aeronautics (Baccalaureate Majors) Northrop University**

Students in the Federal Aviation Administration approved Airframe and Powerplant Maintenance Course offered at Glendale Community College can receive up to 87 quarter units of transferable credit to apply directly towards a Bachelor of Science degree in Engineering Technology or Management.

The Engineering Technology program is designed to give the student an engineering background which is more hardware oriented. Students build a practical educational foundation in mathematics and basic sciences without the rigor of the engineering curriculum. Additional exposure is given to the technical studies, design, drafting, communications, and the socio-humanistic courses.

The Management program with the Aviation option is designed to give the student managerial skills to supplement his technical abilities and knowledge in aviation. This integration of educational disciplines allows students greater job flexibility with a solid background for employment in aviation administration, marketing, and in the non-aviation business community professions.

**San Jose State University**

The Curricula for the two Bachelor of Science Degree programs in aeronautics have been designed to prepare the graduate for entry into a wide range of positions in the aerospace industry. All students receive a thorough training in the fundamentals of aviation integrated with mathematics, science and general education courses especially chosen for their applicability to the aerospace field. The opportunity for specialization is presented in the form of the two degree curricula, aeronautical maintenance and aeronautical operations. Additional orientation towards such areas as space technology, commercial air transportation, or fixed base operations may be obtained by a proper selection of elective courses. The services of the adviser are available for this purpose.

A Federal Aviation Administration-approved school is operated as an integral part of the aeronautics curriculum and extensive laboratory facilities are available to all students. All aeronautical maintenance majors are required to obtain their airframe and powerplant rating as a part of the Bachelor of Science Degree requirements.

Required courses — Maintenance: Aviation and Transportation 120, 123, 126; Chemistry 101, 102; Economics 101; Engineering 101, 103; English 101, Mathematics 103, 104, 130; Physics 101, 102, 103; Psychology 101; Speech 101.

Required courses — Operations: Aviation and Transportation 120, 141, 142, 145; Business 101, 102, 111, 128, 161; Chemistry 101, 102; Economics 101, 102; Engineering 101; Physics 105, 106; Psychology 101; Speech 101.

**Agriculture California Polytechnic State University, San Luis Obispo**

Agriculture students would find it advantageous to have completed the following courses in high school: Mathematics, including two years of algebra; chemistry, 1 unit; biology, 1 unit; vocational agriculture (if available), two years. Such high school preparation would serve to enhance the students' preparation for all agriculture majors. In the first two years of college, students should include in their course of study the following: Chemistry 101, 105; English 101, 102; History 110; Political Science 101; Mathematics 101, 102; Health 103. Recommended: Biology 137; Psychology 101; Speech 101; Welding 117.

**Architecture California Polytechnic State University, San Luis Obispo**

**Architectural Engineering**  
**Construction Engineering**

Students planning to enter the School of Architecture and Design would be encouraged to include the following course work in their programs: English 101; English 102 or Speech 101; Mathematics 103, 104; Physics 101; Psychology 101; Political Science 101, 106; History 110; Economics 105; Philosophy 101 or 117; Art 116; Architecture 101, 102, 103, 105.

- City and Regional Planning** **California Polytechnic State University, San Luis Obispo**  
Students planning to enter the School of Architecture and Environmental Design would be encouraged to include the following course work in their programs: English 101; English 102 or Speech 101; Business 111; Psychology 101; Political Science 101, 106; History 110; Economics 105; Philosophy 101 or 117; Geology 101; Biology 122, 124; Art 116; Architecture 103, 105; Sociology 101.
- Landscape Architecture** **California Polytechnic State University, San Luis Obispo**  
Students planning to enter the School of Architecture and Environmental Design would be encouraged to include the following course work in their programs: English 101; English 102 or Speech 101; Business 111, 161; Psychology 101; Political Science 101, 106; History 110; Economics 105; Philosophy 101 or 117; Physical Science 131; Geology 101; Biology 124; Art 116; Architecture 103, 105; Sociology 101.
- Biology** **California State University, Northridge**  
Biology 101-102, Chemistry 101-102; Physics 105-106; Mathematics 103 (or take CSUN Mathematics 105 or placement test after transfer).
- Business Administration** **University of California, Berkeley**  
A student transferring from a community college must have followed a program of study which includes the following: (These courses must be taken for Letter grades.)  
Business 101-102, Mathematics 103-104, 130; Economics 101-102, 107; English 101-102.
- California State University, Los Angeles**  
Students planning to enter the School of Business and Economics, California State University, Los Angeles, at the end of two years at Glendale Community College, must complete a minimum of 56 transferable units and may have a maximum of 70 units, with an over-all "C" average in all transferable work. Courses should be included which may be used to partially satisfy the general graduation requirements for the major. The following courses are required: Business 101-102, 111-112, 122, and either Business 128 or Business 129 (Business 125 taken prior to 1975), 161; Economics 101-102, 107. See page 259, for general education requirements for California State University, Los Angeles.
- California State University, Fresno**  
Students planning to enter the School of Business, California State University, Fresno, at the end of two years at Glendale Community College must complete a minimum of 60 transferable units and a maximum of 70 units, with an overall "C" average in all work. If possible, the general education requirements should be certified. The following Glendale Community College courses are highly recommended: Business 101, 102, 111, 122, 128, 161, 171; and Economics 101, 102, and 107.

**California State University, Northridge**

The lower division requirements for the various departments in the School of Business at California State University, Northridge are:

Business 101, 102, 161

Economics 101, 102

Mathematics 103, 104, or Business 111, 112

The lower division requirement, CSUN Business 223, should be taken after transfer. Students planning to specialize in Office Administration or to prepare for teaching Business subjects in high school should consult the California State University, Northridge catalog and a Glendale Community College counselor for selection of appropriate additional courses in typing, shorthand, and office machines. See page 259 for the General Education Requirements for California State University, Northridge.

**University of Southern California**

The University of Southern California offers a curriculum in Business Administration leading toward the Bachelor of Science degree. The following courses are required with minimum units shown.

Accounting (8 units) Business 101 and 102

Behavioral Science (6 units) Anthropology 102; Geography 102 or 105;

Psychology 101, 102, 131; Sociology 101, 102.

Economics (6 units) Economics 101-102

English (6 units) English 101-102

\*Humanities or Social Sciences (6 units)

Art, Music, Philosophy, Theater Arts (Drama)

History, Physical Geography, Journalism, Speech

Political Science, Theater Arts, Foreign Languages

\*Literature (3 units)

Business 10 units) Business 111-112

\*Natural Sciences (6 units excluding mathematics)

Recommended: Business 161 and 162. Note: If Business 161 is taken, then 162 should also be taken before transferring. Business 161 and 162 will fulfill the upper division Business Law requirement at USC

\*See courses listed under these headings for The College of Letters, Arts, and Sciences on page 256.

**Pepperdine University**

The following are required or elective lower division course in degree programs: Business Administration; Accounting; Bachelor of Science in Administrative Science; Public Management:

Business 101, 102, 111-112, 141

Economics 101, 102, 107

English 192

Psychology 101

Sociology 101

The above are required or elective lower division courses in the following Pepperdine degree programs:

Business Administration

Accounting

Bachelor of Science in Administrative Science

Public Management

Transfer students may also receive elective courses in certain Pepperdine programs for courses taken in the following fields: Aviation and Transportation; Business; Economics; Electronics; Police Science; Public Administration; Real Estate; Vocational Nursing.

Students graduating from Pepperdine must also complete General Education requirements described in the catalog. (A student entering Pepperdine with the A.A. degree meets all General Education requirements in the Public Management Program.)

### **Chemistry**

#### **California State University, Northridge**

Chemistry 101-102, 103; Mathematics 103, 104, 105, 106; Physics 101, 102, 103. (A modified Mathematics and Physics sequence may be taken by those seeking the B.A. degree rather than the B.S. degree. Consult the CSUN catalog.)

#### **College of Chemistry, University of California at Berkeley**

Admission to upper division chemistry for a total of 90 quarter units is contingent upon a grade point average of at least 2.5 in courses basic to the major. Recommended courses include: Chemistry 101-102, 103, 105-106; Physics 101, 102, 103; Mathematics 103, 104, 105, 106; English 101 or Speech 101; Economics 101; German 101-102; History 117-118. A student may pursue the study of chemistry on any campus of the University by enrolling in the College of Letters and Science, with a major in chemistry. For details on College of Letters and Science breadth requirements refer to page 228 of this catalog.

### **Chiropractic**

#### **Los Angeles College of Chiropractic**

The pre-professional program of the student desiring to matriculate at the Los Angeles College of Chiropractic may be undertaken at Glendale Community College. Sixty transferable units must be completed. Electives should be chosen from speech, philosophy, literature, or from culturally or professionally related subjects. It is recommended that a foreign language be included in the electives.

These courses are required: Biology 101, 102;

Chemistry 101, 102

Complete a minimum of six units selected from the following:

Economics 101

Political Science 101

Psychology 101

History 117, 118

At least six units should be chosen from this category.

English 101, 102

Music 120

Electives to total 60 units.

**Computer Science California State University, Northridge**

Glendale College students can partially satisfy lower division requirements for the CSUN Computer Science major by completing the following courses:

Business 122, Mathematics 130 or Business 129, Mathematics 103-105,

Physics 101-102, Mathematics 106 or Physics 103.

Students may take CSUN Computer Science courses 220 and 230, and Philosophy 230 after transfer.

**California State University, Sacramento**

Students may complete a Bachelor of Science in Computer Science with one of three orientations: scientific applications, systems programming, and business applications. Students planning to complete the degree with a emphasis in scientific applications or systems should include in their programs. Mathematics 103, 104, 105, 106, 130; Economics 107 and at least two courses from chemistry and /or physics. For orientation in business applications students should include Mathematics 103, 104, 105; Business 129, 130; and Economics 107. In addition, one or more courses from Business 111, 122, 127, 128, 137, 138 are recommended to all students planning to major in Computer Science.

**Northrop University**

Students interested in obtaining a Baccalaureate of Science degree from Northrop University in Computer Science can receive maximum transfer credit by taking the following courses:

Business 130; Chemistry 101; Electronics 171; English 101, 102; History 117 and 118; Mathematics 103, 104, 105, 106, 130; Physics 101, 102; and four 3-unit courses chosen from the fields of Anthropology, Biology, Economics, History, Philosophy, Political Science, Psychology, Sociology.

**Criminal Justice California State University, Long Beach**

Majors in Criminal Justice intending to transfer to California State University, Long Beach to continue work for a Bachelor of Science Degree in the law enforcement area are advised to familiarize themselves with the requirements of that University. California State University, Long Beach will accept for transfer credit to be applied toward the major a total of 24 units of lower division work in criminal justice.

**California State University, Los Angeles**

Criminal Justice majors intending to transfer to California State University, Los Angeles, to continue work for a Bachelor of Science Degree in the law enforcement area are advised to familiarize themselves with the requirements of that University. California State University, Los Angeles, will accept for transfer credit to be applied toward the major a total of 21 units of lower division work in Criminal Justice earned by the Criminal Justice major.

Criminal Justice courses which are acceptable for transfer credit at California State University, Los Angeles, to meet major requirements for the Bachelor of Science Degree are Administration of Justice 101, 103, 110, 120; Political Science 101, 106; Psychology 101; Sociology 101. Acceptable electives: Administration of Justice 108, 114, 116.

The Criminal Justice major who plans upon graduation to continue his work at California State University, Los Angeles, should limit his program to the Administration of Justice courses listed above. In addition, he should complete as many as possible of the lower division General Education courses required of all majors at California State University, Los Angeles.

Units in Criminal Justice may be applied as elective credits toward completion of total degree requirements.

See page 260.

**Dental Hygiene** Dental Hygiene bears a relationship to dentistry similar to that which nursing bears to the medical profession. Students may complete the two-year Pre-dental Hygiene Curriculum at Glendale Community College and then transfer to a dental school for the remaining two years.

**University of California, San Francisco**

These courses are required: Chemistry 101, 102, 105, 106

English 101-102

Biology 101-102

Physics 105, 106

Psychology 101, 102 or 107 or 131

Twelve semester units selected from the social sciences, humanities, and foreign languages. Courses from each area are not required. Completing the university requirement in American History and Institutions for the B.S. degree as part of this requirement is recommended.

Electives to total 60 semester units.

**University of Southern California**

Students may apply for admission to the School of Dentistry after completing a minimum of 60 units excluding courses offered in the dental hygiene curriculum and including the courses shown below. Application should be filed well in advance of February 1 of the year in which the student wishes to be admitted.

These courses are required: Chemistry 101-102, English 101

Biology 101-102

Health 103

Speech 101

Psychology 101

Sociology 101

Electives from: Biological Science

Chemistry

Foreign Languages

English Composition

English Literature



Philosophy  
Social Science  
Music or Art Appreciation

**Dentistry, Pre-dental Curriculum**

**University of California, Los Angeles**

Those wishing to enter the School of Dentistry must have completed a minimum of three full academic years of college work, including the following courses: Chemistry 101-102, 105-106; Physics 105-106; Biology 101, 102; English 101-102; Psychology 101; and upper division embryology. Generally, the pre-dental student is advised to seek a sound liberal arts background in the humanities, social and behavioral sciences, in addition to the requirements listed above.

**University of California, San Francisco**

The completion of 90 transferable semester units (exclusive of repeated and nontransferable courses) of all college work is a minimum requirement for admission to the School of Dentistry. Those who wish to enter the San Francisco School of Dentistry must have completed 90 units (at least 20 units of which must be completed at a senior college) These units must include the subjects in the following list:

General University Requirements\*

English 101-102

Chemistry 101-102, 105-106

Physics 105-106

Biology 101-102

Psychology 101-102 or 103 or 107

11 semester units — Social Sciences, Humanities

Foreign Languages, Psychology in addition to above.

Additional electives to bring the total number of units to at least 90 semester units. (Recommended: Embryology, comparative vertebrate anatomy, advanced mathematics).

\*Students who plan to complete the requirements for the B.S. degree in dentistry must satisfy the English Composition and American History and American Institutions requirements.

**University of Southern California**

Students may apply for admission to the School of Dentistry after completing 60 units of college work including the following required courses: Chemistry 101-102, 105-106; Physics 105-106; Biology 101-102; English 101-102. The following courses are recommended: Art 151\*, 101 or 102 or Music 120; English Literature; History 107-108, 107-109, 108-109; Foreign Languages; Philosophy; Political Science 105-106 or 101-106; Psychology 101. Applications should be filed well in advance of October 31 of the year preceding that in which the student wishes to be admitted.

\*Art 151 is recommended in preparation for the Dental Aptitude test; it is non-transferable.

**Loma Linda University**

Although a two-year pre-dental curriculum in an accredited liberal arts college is prescribed, a Bachelor of Arts Degree or the equivalent, is advantageous. Students may apply for admission to the School of Dentistry after completing 64 units of college work including the following courses: Chemistry 101-102, 105-106; English 101-102; Physics 105-106; Biology 101-102; Machine Shop 105. Recommended: Art 151-152; Business 105; Chemistry 103; Mathematics 103, 104, 105.

**Dietetics California State University, Los Angeles**  
(See Food and Nutrition)**University of California, Berkeley**

Students planning to complete the work for the Bachelor of Science Degree should include the following courses:

Biology 112, 121 and one additional course in anatomy, biology, botany, physiology or genetics (3-5 semester units).

Chemistry 101-102 and Chemistry 105, 106 recommended.

Economics 101 or Economics 102

English 101-102

History 117-118

Mathematics 103

Physics 105-106

Psychology 101

Sociology 107 or Economics 107 or Psychology 107

**Earth Science University of California, Berkeley**

This is a new program including a broad spectrum of courses in natural science. It is designed for students who desire a general background in the field of earth science, and it is sufficiently flexible to serve a variety of special interests in the general field.

Required: Anthropology 101 or Astronomy 101; Biology 101; Chemistry 101-102; Geology 110; Mathematics 103, 104, 105, 106; Physics 101, 102, 103.

**Economics** Economics majors should follow the curriculum pattern outlined under General Education Requirements for Graduation from Colleges and Universities. See page 226.**University of California, Berkeley**

Required: Economics 101, 102, 107

**University of California, Los Angeles**

Required: Economics 101, 102; Mathematics 103 or Business 111-112

Recommended: Economics 111

**University of Southern California**

Required: Economics 101, 102; Business 111, 112

**Engineering California State University, Fresno**

Degrees are offered in civil, electrical, industrial, and mechanical engineering, and in surveying and photogrammetry. Students planning to complete the work for an Engineering degree should include the following courses: Chemistry 101, 102; Engineering 103, 110; Mathematics 103, 104, 105, 106, 130; Physics 101, 102, 103; History 117-118.

Students planning to complete the work for a degree in surveying and photogrammetry should include the following courses: Chemistry 110; Engineering 103; English 101; Geology 110; Mathematics 103, 104; Physics 105, 106; Speech 101; History 117-118.

**California State University, Fullerton**

The engineering curriculum requires completion of 132 semester units for graduation. The areas of concentration open to students are: Electrical engineering, mechanical engineering, civil engineering/engineering mechanics, and engineering science.

**Non-Engineering General Education**

The engineering student will take at least 24 units from Social Science and Humanities of the general education requirements for the bachelor's degree, six units of which may meet the U.S. History and government requirements. He will follow, as a minimum, the universitywide requirements, adding courses at his discretion to make 24 units. An additional four units, for a total of 28, must be specifically approved by his adviser and will be recommended to assure the best balance for the student's education. A student shall be limited to a maximum of six units of activity courses. All students take a common core curriculum for the first two and one-half years.

Mathematics 103, 104, 105, 106, 130; Chemistry 101, 102; Physics 101, 102, 103; Engineering 101, 108, 110. One course in data processing using FORTRAN is recommended.

**California State University, Los Angeles**

Students planning to complete the work for an engineering major (B.S. Degree) should include the following courses: Chemistry 101, 102; Engineering 103, 110; Mathematics 103, 104, 105, 130; Physics 101, 102, 103.

**California Polytechnic State University, San Luis Obispo**

Engineering students should have completed the following courses in high school: mathematics, 4 units, including two years of algebra and trigonometry; physics, 1 unit; chemistry, 1 unit; and mechanical drawing, 1 unit. Without this preparation it will be difficult to obtain an engineering degree in four years. In the first two years students should include in the course of study: Biology 122; Chemistry 101; English 101; Mathematics 103, 104, 105, 106; Physics 101, 102, 103; Engineering 103, 110; two semesters of Physical Education activity courses.

**California State Polytechnic University, Pomona**

Students who plan to transfer to the School of Engineering at Cal Poly, Pomona, should complete approximately 70 semester units if they hope to

receive the Bachelor of Science Degree in a minimum of time. During April of the year the student becomes eligible to transfer, he should contact the department head of the Engineering major he wishes to pursue at Cal Poly, Pomona.

The following courses are recommended for all Engineering transfers: Mathematics 103, 104, 105, 106, 130; Physics 101, 102, 103; Engineering 101\*, 103\*\*, 110; Chemistry 101.

\*Engineering 101 not required by Electrical Engineering.

\*\*Engineering 103 required by Mechanical Engineering only.

#### **California State University, Northridge**

The engineering program is arranged to provide the student with a sound program in the fundamentals of engineering, preparing for a career in professional engineering or for continuing academic work toward an advanced degree, and at the same time to provide the broad academic program that constitutes a liberal education. The curriculum consists of 132 semester units and leads to the Degree of Bachelor of Science in Engineering. The curriculum is accredited by the Engineering Council for Professional Development.

It is necessary that today's engineer has a sound education that enables him to adapt to the rapidly changing requirements of a developing technology rather than a narrow and inflexible training. At this Institution, the program has been developed by emphasizing the fundamentals common to all branches of engineering, postponing the study of engineering specialties to the final year.

Since contemporary science is developing with unprecedented speed into ever increasing areas of knowledge, an essential part of the program consists of a rigorous background in the mathematical and physical sciences. This theoretical study comprises most of the curriculum for the first two years.

The program is designed to accept the transfer students from community colleges at the sophomore or junior level.

The following courses should be taken in the first two years: Engineering 103; Mathematics 130 or Business 129; Chemistry 101; Mathematics 103, 104, 105, 106; Physics 101, 102, 103.

For the General Education requirements see page 259.

#### **Northrop University**

The College of Engineering offers degrees in Aerospace, Mechanical, Electronics and Engineering Science disciplines. These programs are accredited by the Engineer's Council for Professional Development. The programs are specifically designed to fulfill the actual needs of industry.

A candidate for the Bachelor's Degree in Engineering can take the following courses for maximum transfer credit:

Chemistry 101; Engineering 104, 110; English 101, 102; History 117 and 118; Mathematics 103, 104, 105, 106, 130; Physics 101, 102, 103; Speech 101; and four 3-unit courses chosen from the fields of Anthropology, Biology, Economics, History, Philosophy, Political Science, Psychology, Sociology.

**Stanford**

The new programs in the School of Engineering are divided into four majors.

*Departmental Majors:* Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial Engineering, Materials Science, Mechanical Engineering.

*Inter-disciplinary Majors:* Aeronautics and Astronautics, Applied Science, Environmental Engineering, Product Design.

*Innovative Majors:* Any student, aided by his adviser, may propose a unique curriculum to attain his particular career goals. Such programs require approval of the Undergraduate Council.

*Technology and Society:* This program is designed as a foundation for a career requiring a combination of engineering, science, and societal subjects rather than study-in-depth of any one of these. Approval of such programs by the Undergraduate Council is required.

In the first two years students should include in the course of study the following:

Writing: English 101-102.

Humanities and Fine Arts: three courses

Social Science: three courses

Technology: Three courses including:

Mathematics 103, 104, 105, 106

Chemistry 101, 102

Physics 101, 102, 103

Free Electives (20 units)—these electives are entirely free and may be used by the student to build a program of greater depth and/or breadth (scientific or otherwise) according to his educational and professional objectives.

*Mathematics* [21 units]

Appropriate courses in Mathematics, Statistics, Computer Science, etc. may be selected.

*Science* [24 units]

Appropriate courses in Physics, Chemistry, Biology, Geology, etc. may be selected.

*Engineering Breadth* [30 units]

This area is composed of eight categories as follows:

1. Mechanics of Solids and Fluids
2. Electric Circuits and Devices
3. Thermodynamics
4. Materials Science and Properties
5. Logic and Computer Systems
6. Systems Analysis and Control
7. Masses and Energy Transfer
8. Decision Processes, Engineering Economy, and Design

The student's program must contain courses selected from not less than five of these categories for a total of at least 30 units. Three (3) of these five categories should not be related to his engineering major. No more than 10 units in any one category can count toward satisfaction of the breadth requirement.

*Engineering Depth (36 units)*

Consult COURSES & DEGREES for detailed information.

*Free Electives (30 units)**Functional Balance*

The adviser should be sure that all programs contain some courses with some aspects of: communication, analysis, synthesis, and experimentation.

**University of California at Berkeley\*, Davis\*\*, Irvine\*\*\*,  
Los Angeles†, San Diego††, Santa Barbara§**

Engineering students should have completed the following courses in high school: Mathematics, 4 units, including two years of algebra and trigonometry; physics, 1 unit or chemistry, 1 unit; and mechanical drawing, 1 unit.†† Without this preparation it will be difficult to obtain an engineering degree in four years. In the first two years, students should include in the course of study: Chemistry 101-102§, Mathematics 103, 104, 105, 106; Physics 101, 102, 103; Engineering 103, 104, 108, 110\*. Nontechnical electives including courses in biology, English, fine arts, humanities and social sciences.

\*Students planning to transfer to Berkeley should include Mathematics 130 which will satisfy the lower division required course on introduction to programming.

Lower division engineering courses in the University of California, Berkeley, curricula include: Civil Engineering: Engineering 103, 108, 110; Electrical Engineering and Computer Science: Engineering 108; Industrial Engineering and Operations Research: Engineering 108; Mechanical Engineering: Engineering 103, 108, 110; Materials Science and Engineering: Engineering 108, 110. Engineering Science students should include: English 101 or Speech 101, technical electives; Bioengineering students should include: Biology 101, 102, those in Engineering Geoscience: Geology 110; all others three (semester) units of Engineering 103, 108, 110. All double major programs between curricula are described in the Announcement of the College of Engineering.

\*\*Students planning to transfer to Davis should take English 101 and Speech 101, plus Mathematics 130. Students planning to major in chemical engineering should take Chemistry 103 and 105 instead of Engineering 103, 104 and 108.

\*\*\*Students planning to transfer to the School of Engineering at Irvine are not required to take any engineering courses although credit toward graduation will be given for eight semester units (twelve quarter units) of engineering courses. For the engineering options offered, Civil, Electrical, Mechanical, General, and double option in Civil and Environmental or Mechanical and Environmental, a course in the use of the computer is suggested, Mathematics 130.

†Students intending to enter the School of Engineering and Applied Science at Los Angeles should take Mathematics 130, which will satisfy a lower division requirement in computing.

††Students bound for the Applied Mechanics and Engineering Science or Applied Science and Information Science majors at University of California at San Diego should decide which USCD college they wish to enter, and work toward completing appropriate general education requirements — although requirements for the major should take first priority. No lower division engineering courses are required.

§Students planning to enter the College of Engineering at Santa Barbara are advised to include the following in their lower division programs; Chemical Engineering majors should include Chemistry 103 and 105 instead of Engineering 103 and 104. It is recommended that Mechanical Engineering majors take Engineering 103, 104 and 110. All engineering students should take English 101 and either English 102 or Speech 101, and a course in Electronics, Field and Circuits. A course in FORTRAN computer programming is also required for all majors.

#### **University of Southern California**

The School of Engineering educates students for seven branches of the field. All departments are fully accredited by the Engineers' Council for Professional Development. A Bachelor's Degree in Computer Science is also available. The School works closely with Southern California industries to tailor the curricula to the actual needs of industry. Although the student must choose a program of studies in one of the major departments, the entering student may not be certain of his ultimate goals or of the offerings in the various departments. Therefore, the basic courses of the first two years are organized in such a way that the student may change from one department to another with a minimum loss of time. Bachelor of Science Degree offered in: Aerospace, Applied Mechanics, Biomedical, Chemical, Civil, Electrical, Industrial and Systems, Mechanical, Metallurgy, and Petroleum.

Admission Requirements: Students intending to transfer from a community college should plan their first two years of work to correspond as nearly as possible with the plan of study as outlined for their desired majors. Transfer students generally must present a grade point average of at least 2.50 (A—4.0) on all college work attempted. The program must include the following courses:

Business 129; Chemistry 101\*; English 101; Mathematics 103, 104, 105, 106; Physics 101, 102, 103; Engineering 101 (or 103); 110 for Aerospace, Civil, Industrial and Systems, Petroleum, and Mechanical Engineering; Geology 101, 105 for Petroleum Engineering; Biology 101, 102 for Biomedical Engineering. Humanities and Social Science, 21 units.

\*It must also include Chemistry 102, 103 for majors in Petroleum, and Chemistry 102, 103, 105, 106 for Chemical and Biomedical Engineering.

#### **California State University, Sacramento**

Bachelor of Science degrees are offered in Civil, Electrical, and Mechanical Engineering. All departments are fully accredited by the Engineer's Council for Professional Development. A very close working relationship exists be-

tween the School and local industry permitting students to gain engineering design experience while in school. The basic courses of the first two years are essentially common for the three departments making it possible for the student to change from one department to another with no loss of time. Students planning to complete the work for an Engineering Degree should include in their programs the following courses: Chemistry 101, 102; Engineering 103, 104, 110; Mathematics 103, 104, 105, 106, 130; Physics 101, 102, 103.

### Engineering Technology

#### California State Polytechnic University, Pomona

Students who are planning a course of study in the Engineering Technology discipline should have completed the following courses prior to transfer: mathematics, including algebra and trigonometry; physics; chemistry; and mechanical drawing. Without this preparation it may be difficult to obtain a baccalaureate degree in Engineering Technology in two additional years. The following technical elective patterns are available in Engineering Technology: Aero-Mechanical, Construction, Electrical-Electronics, and Manufacturing. Students should direct their technical studies toward a career of their choice.

In the first two years students should include in their course of study: Biology 122 or 124; Chemistry 101; Economics 101, 107; Electronics 171, 172, 173, 174; English 101; Mathematics 101, 102, 103, 130; Physics 105, 106; Engineering 101, 103; Speech 101; Welding 117; Physical Education Activity courses.

#### California Polytechnic State University, San Luis Obispo

Students who are planning a course of study in the Engineering Technology discipline should have completed the following courses in high school: mathematics, 4 units, including algebra and trigonometry; physics, 1 unit; chemistry, 1 unit; and mechanical drawing, 1 unit. Without this preparation it will be difficult to obtain a degree in Engineering Technology in four years. The following E.C.P.D. accredited options are available in Engineering Technology: Electronic Technology, Mechanical Technology, Air Conditioning and Refrigeration Technology, Manufacturing Processes Technology, and Welding Technology. Students should direct their studies toward an option of their choice.

In the first two years students should include in their course of study: Biology 122; Chemistry 101; English 101, 102; Mathematics 101, 102, 103, 104; Physics 105, 106; Engineering 103, 104; Physical Education Activity courses, two semesters.

#### California State University, Sacramento

The Engineering Technology program at California State University, Sacramento is for students who have completed a two-year technology program for an A.S. degree at a community college or have the equivalent training. The program currently offers options in Construction Technology and in Mechanical Technology.

In conjunction with completing the requirements for the A.S. degree, students should take the following courses: Chemistry 110; English 101, 102; Mathematics 101, 102; Physics 105, 106; Engineering 103, 104.



**Food and Nutrition**    **California State University, Los Angeles  
(B.S. Degree Option)**

Students planning to complete the work for the Bachelor of Science Degree should include the following courses:

Chemistry 101-102, 105, 106  
Biology 112, 120, 121  
Sociology 101, or Anthropology 102  
Psychology 101, 131  
Home Arts 125  
Family and Consumer Studies 135

**Foreign Language**    **College of Letters and Science, University of California, Berkeley**

Students majoring in a foreign language should follow the program of studies outlined under lower division requirements. The courses that are required or recommended for each particular language are as follows:

*French:*

Required: French 101, 102, 103, 104. Unless student receives grade of "A" or "B" in French 104, it will be necessary to complete French 46 at the University of California prior to being admitted to upper division work.

Recommended: History 101-102; Philosophy 119, 120; English 101-102, 105-106; high school Latin.

*German:*

Required: German 101, 102, 103, 104.

Recommended: History 101-102 and English 105-106, 109-110.

*Spanish:*

Required: Spanish 101, 102, 103, 104. Unless student receives grade of "A" or "B" in Spanish 104, it will be necessary to complete Spanish 25 at the University of California prior to being admitted to upper division work.

Students may not major in Spanish unless a "C" average is maintained in all lower division Spanish courses. One year of Latin in high school is required of majors in this field. This requirement may be completed by taking Latin 1-2 at the University of California before commencing the senior year.

**Forestry and Conservation**    **The Department of Forestry and Resource Management, University of California at Berkeley, offers the following degrees: B.S., M.S., M.F., and Ph.D. Junior college transfer students are admitted in junior standing with at least 56 semester units of courses as specified. Minimum requirement may be met by Biology 101-102; Chemistry 101; Economics 101, 102, 107; Geology 101; Mathematics 103; Physics 105-106; and English 101-102 or Speech 101, 102. It is recommended that the student include Chemistry 102 and Calculus 104 in the course program.**

Students completing the pre-forestry curriculum must enroll in the Summer Field Program during the summer preceding their junior year. This is a ten-week summer field course offered only by the Department of Forestry and Resource Management and given at Meadow Valley. Application for the Summer Field Program should be made before March 1.

The School of Natural Resources of Humboldt State University, offers a Bachelor of Science and M.S. Degree in Forestry. Lower division courses for Forest Management and Forest Science options include Biology 101\*, 102\*; Chemistry 101\*, Mathematics 103\*; Physics 105\*; and Business 129 or Mathematics 130. Forest Science majors should also include Chemistry 102, Mathematics 104, and Physics 106.

\*Courses that must be completed prior to admission to Humboldt.

### **Geography**

Students majoring in this field should follow the lower division requirements for the College of Letters and Science. In addition, the following required and recommended courses should be completed at the college or university of their choice.

#### **California State University, Los Angeles**

Required: Geography 101, 102.

#### **California State University, Northridge**

Geography 101, Geography 102 or 105.

#### **University of California at Los Angeles**

Required: Geography 101-102.

Recommended: Mathematics 103-104.

#### **University of California at Berkeley**

Required: Geography 101-102, 105.

See page 259.

### **Geology**

Students may specialize in geology in the petroleum engineering branch of the College of Engineering or in the College of Letters and Science. Those taking petroleum engineering should follow the curriculum for engineering. Those electing geophysics should consult the University of California Catalog. Those majoring in geology in the College of Letters and Science at a four-year college or university should fulfill the stated lower division requirements, taking into consideration the following requirements and recommendations:

#### **University of California at Berkeley:**

Required: Geology 110; Paleontology 101; 40 units of lower division courses in Physics 101, 102, 103; Chemistry 101-102, 103; Mathematics 103, 104, 105, 106; Economics 107.

#### **University of California at Davis: (B.S. Degree)**

Required: Biology 101; Chemistry 101-102; Mathematics 103, 104, 105; Physics 101, 102, 103 or 105-106; Mineralogy 101.

Recommended: Biology 102; Geology 101, 105; Paleontology 101, Physics 103.

#### **University of California at Los Angeles:**

Biology 101, 102; Chemistry 101, 102; Geology 105, 110; Mathematics 103, 104, 105, 106; Paleontology 101; Physics 105-106.

See page 259.

**Geophysics University of California at Berkeley**

This program includes some of the most rigorous basic courses in physical science and mathematics and is designed specifically for students who anticipate post-graduate study in geophysics. Required: Chemistry 101; Geology 105; Mathematics 103, 104, 105, 106; Physics 101, 102, 103.

**History** History majors should follow the curriculum pattern outlined under lower division requirements, taking into consideration the following requirements and recommendations:

**University of California at Berkeley:**

Required: History 101-102 or History 107-108 or History 108-109, and two courses chosen from the following: History 103, 104, 117-118, 120.

**University of California at Los Angeles:**

Required: History 107, 108, 109 and six units (2 courses) from among the following: History 103, 104, 117, 118, 119, 120. Caution: It is recommended that if a Far East or Latin American course is taken, either the second course in the sequence or a U.S. course accompany it. UCLA calls for 2 non-Western courses in the same area.

**University of Southern California:**

Required: Six units from History 101, 102, 107, 108, 109, 119, 120.

**Human Services California State University, Dominguez Hills  
California State University, Fullerton**

The Bachelor of Arts Degree in Human Services requires a student to complete the General Education Breadth Requirements only. Students completing the Glendale Community College Human Services Aide Certificate should consult their counselor in reference to selecting only transferable courses.

**Industrial Arts** Students majoring in industrial arts should be concerned with going into teaching or pursuing careers in industry at the technician and management levels. At present, degree programs in industrial arts leading to the credential or industrial technology are offered in the following state colleges and state universities: California State Polytechnic University, San Luis Obispo; Chico, Fresno, Humboldt, Los Angeles, Long Beach, San Diego, San Francisco, and San Jose.

**California State University, Fresno**

In addition to the completion of a certifiable General Education program as outlined on page 259 the following courses are recommended: Machine Shop 101; Metals 115; Welding 117; Engineering 101; Electronics 175 or 177; Photography 101 or 102; Printing 101.

**California State University, Long Beach**

The following courses are recommended in addition to the General Education requirements of the preceding schools; Machine Shop 101; Metals 115; Welding 117; Drafting 129 or Engineering 101; Electronics 175 or 177; Photography 101 or 102; Printing 101. To a maximum of 20 units of credit. See page 259.

**California State University, Los Angeles**

In addition to the completion of the General Education requirements (see page 259), the following courses must be elected.

Drafting 131 or Engineering 101; Metals 115; Electronics 171 or Electronics 175; Photography 101-102; Management 113.

**California State University, Chico**

For the B.A. Degree:

In addition to the completion of the General Education Requirements (see page 259), the following courses must be elected:

Chemistry 101, 102; Drafting 131; Electronics 171; Graphics 165, 166; Metals 115; Photography 101; Physics 105, 106; Printing 101-104.

*Note:* The chemistry and physics requirements can be double counted for both general studies and major requirements.

**California State University, San Jose**

Students majoring in industrial arts should be concerned with going into teaching or pursuing careers in industry at the technician and management levels. At present, degree programs in industrial arts leading to the credential or industrial technology are offered in the following state colleges and state universities: California State Polytechnic University, San Luis Obispo; Chico, Fresno, Humboldt, Los Angeles, Long Beach, San Diego, San Francisco, and San Jose.

Students planning to attend San Jose to seek a major in industrial arts should complete the following: Chemistry 101, 102, 105; English 101-102; History 117-118; Speech 101; Graphics 165. It is suggested that the following courses be completed as part of the general education: Art 101, 102, 103, 106, 107, 108; Biology 101; Political Science 101.

**Industrial Technology**

Prepares students for technical management positions in industry. Options in the Manufacturing and Constructions industries with emphases in a number of technical areas are available. At present programs are offered at the following California State Universities: Fresno, San Jose, Long Beach, San Luis Obispo, Chico, and San Diego. The catalogs of these particular Universities should be consulted for requirement details.

**California State University, Chico**

For the B.S. Degree:

In addition to the completion of the General Education Requirements (see page 259), the following courses must be elected:

Chemistry 101, 102; Drafting 131; Electronics 171; Metals 115; Physics 105, 106.

*Note:* The chemistry and physics requirements can be double counted for both general studies and major requirements.

**California State University, Fresno**

Construction Option:

Core: Architecture 101; Electronics 175; Business 101, 122; Chemistry 110; Mathematics 103; Materials and Processes 146.

Architectural Drafting Emphasis: Engineering 103;  
Architecture 102\*, 105\*, 109\*, 110\*, 111\*, 112\*, 191\*, 192\*, 193\*, 194\*  
Heavy Building Emphasis: Engineering 103  
Light Building Emphasis: Business 161\*, 162\*, 165\*  
Real Estate Emphasis: Business 161\*, 162\*, 165\*

**Manufacturing Option:**

Core: Engineering 101; Electronics 175; Materials and Processes 146;

Machine Shop 101 or Metals 115; Mathematics 103; Chemistry 110; Business 123.

Drafting/Design Emphasis: Engineering 103, 104; Welding 117; Drafting 131\*, 132\*, 134\*.

Electricity/Electronics Emphasis: Electronics 171\*, 172\*, 173\*, 174\*.

Metals Emphasis: Machine Shop 101\*, 102\*, 103\*, 104\*, 105\*, 106\*, 109\*.

Transportation Emphasis: Aviation and Transportation 120\*, 126\*, 137\*, 141\*, 142\*, 143\*, 145\*, 146\*, 148\*, 149\*.

Wood Products Emphasis: Chemistry 105

Graphics Communications Emphasis: Printing 101\*, 102\*, 103\*, 104\*,  
Graphics 165, 167, 168, 169.

General Education as outlined on Page 259 including:

Economics 101, 102; Physics 105, 106.

\*Will meet major requirements for equivalent emphasis courses to a maximum unit value represented by those courses whose content has been covered, and/or elective credit required. The Industrial Arts and Technology Department should be contacted as early as possible for additional information.

### **California State University, Long Beach**

*Construction Option:* Carpentry 151 for 5 units, plus 7 units of Architecture, or 14 units of Architecture chosen from the following: Architecture 101, 103, 105, 109-112.

Note: Maximum of 24 technical units may be transferred.

Chemistry 110; Business 161; Economics 101, Economics 111 or History 110; English 101; Mathematics 103 or Business 111 and 112; Political Science 105, 106; Physics 105, 106. Any course in Art, Music, or Theater Arts (3 units).

*Electronics Option:* Machine Shop 105; Electronics 171, 172, 173.

Note: Maximum of 24 units may be transferred for courses in Technical Education.

Chemistry 110; Business 161; Economics 101; Economics 111 or History 110; English 101; Mathematics 103 or Business 111 and 112; Political Science 105, 106; Physics 105, 106. Any course in Art, Music, or Theater Arts (3 units).

*Manufacturing Option:* Machine Shop 101; Drafting 131; Technical Electives.

Note: Maximum of 24 units may be transferred for courses in Technical Education.

Chemistry 110; Business 161; Economics 101; Economics 111 or History 110; English 101; Mathematics 103 or Business 111 and 112; Political Science 105, 106; Physics 105, 106; any course in Art, Music, or Theater Arts (3 units).

*Quality Assurance Option:* Business 101, 161; Chemistry 110; Economics 101; English 101; Mathematics 103 or Business 111 and 112; Philosophy 117; Physics 105-106; Economics 111 or History 110; Political Science 105-106; any course in Art, Music, or Theater Arts (3 units).

Note: Maximum of 24 technical units may be transferred, to include at least two courses (6 units) in quality assurance, Machine Shop 101, Drafting 131, technical electronics.

Additional courses may be taken in the Options: Construction — Business 101, Philosophy 117

Electronics— Business 101, Philosophy 117

Manufacturing — Business 101, Philosophy 117

All options — Economics 107

### **California State University, Los Angeles**

Printing Management Option: Business 101, 102, 161; Economics 101, 102

Fire Protection Administration: Transfer course agreement to be worked out with California State University, Los Angeles for those transferring to the program.

### **Law Hastings College of the Law, University of California**

The Dean and Committees on Admissions do not require that the prospective students present credits in any special area and an examination of the background of the members of the student body would substantiate this diversity. Generally, however, it is felt that the students should endeavor to provide themselves with as broad and general an undergraduate education as possible. This not only aids the College in producing educated and cultured members of the profession but also helps the students by exposing them to more of the complex problems of our society and in providing them with a greater acuity for logical perception and in-depth analysis. It is essential that the students possess habits of precision, fluency, and economy in speaking and writing.

Applicants for the degree of juris doctor must have received a Bachelor's degree or its equivalent from a college or university of approved standing prior to commencing their studies. All applicants are required to take the Law School Admission Test administered by the Educational Testing Service, and register with the Law School Data Assembly Service (LSDAS).

In recognition of the under-representation of minority members in the legal profession, in 1969 the College initiated the Legal Education Opportunity Program (LEOP) designed to increase significantly its minority student enrollment. As a result of this program, the number of Black, Chicano, Asian, and American Indian students in the College has increased substantially. This program includes a flexible admissions approach. Any applicant want-

ing his or her file evaluated under the LEOP Program should so state that fact on the application. For admission procedures refer to the annual announcement for the Hastings College of Law.

#### **University of California at Berkeley**

Experience has shown that students from diverse educational backgrounds do equally well in law school and later in practice. As a result, there is no single "pre-law" major required or even recommended. However, for those students still in a position to structure their curriculum the following are suggested: (1) Develop writing skills. Take courses in which work is edited vigorously. (2) Develop analytical skills. (3) Obtain breadth in humanities and social sciences. A good lawyer must understand the social context within which legal problems arise. (4) Acquire a general understanding of several fields with emphasis on a particular field of interest. In selecting specific courses to fulfill these recommendations, consult your undergraduate adviser.

The ability to use a typewriter is also useful to a lawyer or law student.

Students should not be deterred from pursuing the study of law merely because their undergraduate education has not been focused on a particular area. The School of Law (Boalt Hall) selects its students from a wide variety of backgrounds and training. This diversity itself enhances and enriches the legal experience of all the students.

#### **University of California at Davis**

No specific college major is required for admission to the School of Law, and there is no prescribed pre-legal program. Degrees from the Colleges of Agricultural and Environmental Sciences, Engineering, and Letters and Science are all acceptable. The individual student's college record and Law School Admission Test score must, of course, demonstrate that he or she is highly qualified for law study.

Pre-legal students should plan a course of study that will give them a broad cultural background and include intensive work for a substantial period of time in a selected field of study. Pre-legal students should develop the ability to communicate easily, persuasively, and accurately; to understand people and institutions; to gather and weigh facts; and to solve problems and think creatively. It is most important that pre-legal students obtain mastery of the English language. They should be able to read rapidly and with comprehension and to express themselves clearly, completely, and concisely, both orally and in writing.

For additional information, see the official *Pre-Law Handbook* 1976-77 edition, published in October, 1976, and prepared by the Law School Admission Test Council and the Association of American Law Schools. This book includes material on the law and lawyers, pre-law preparation, applying to Law School, and the study of law, together with individualized information on most American law schools. It may be obtained at college book stores or ordered from Educational Testing Service, Princeton, New Jersey, 08540.

**University of California at Los Angeles**

The School does not prescribe any fixed pre-law course, but requires the Baccalaureate Degree of all candidates for admission.

Successful study of law is more often related to an acquired habit of disciplined work with difficult intellectual problems than to the possession of any special body of facts. Certain general objectives of a pre-legal education can, however, be given. The Association of American Law Schools has stated these objectives under three broad headings: education for comprehension and expression in words, education for critical understanding of human institutions and values, and education for creative power and thinking. The skills, understanding and cultural foundation encompassed in these statements can be gained from many fields of study. The law is peculiarly a discipline where every branch of knowledge will prove useful to the student and the practitioner. The best courses for pre-law study vary with the school at which the pre-law degree is taken, and students are urged to seek local advice.

**University of Southern California**

There are no required pre-law courses. The Faculty recommends college courses which are intellectually challenging, which require disciplined hard work, and which offer an opportunity for seminar discussions and for research and writing. The student may find that college courses in fields such as anthropology, economics, history, philosophy, political science, psychology, and sociology are more useful to his legal career than are vocationally oriented courses.

**Liberal Studies California State University, Long Beach**

The following courses are recommended for the student who intends to major in Liberal Studies at California State University, Long Beach: English 101, 102. Two courses from: English 105, 106, 122, 123, 125, 126. Mathematics 138 or Mathematics 103 and Mathematics 104. One or two courses from: Chemistry 101, 110; Physics 105, 110; Geology 110. History 110, Political Science 101 and Political Science 106 or History 117, 118 and Political Science 106. Three courses from: Anthropology 102; Economics 101, 102; Geography 101, 102; Political Science 102, 103; Psychology 101, 110; and Sociology 101, 102. Three courses from: Art 101, 102, 113, 115; Music 120 (at least one Music and one Art course). Two courses from: Art 108; History 119, 120; Philosophy 114. Optional courses: English 103; Speech 101.

**California State University, Los Angeles**

Liberal Studies offers students an interdisciplinary major program in the Liberal Arts, and aims to provide a Liberal Arts foundation for pre-professional training in law, medicine, librarianship, education, various fields of public service, business, industry. Completion of general breadth requirements satisfies lower-division requirements for this major.

Multiple Subjects Credential



The Liberal Studies major holds waiver status for the M.S. credential from the California campuses for teacher preparation and licensing. When completing general breadth requirements, the following Glendale Community College courses should be taken: English 101, 102; Speech 101; Psychology 101; Political Science 101 or Political Science 101 and 106; History 117 or 118; six (6) units in art, drama, music, foreign language, or philosophy only; satisfaction of California State University and Colleges. General Education Requirement in Natural Science.

#### **California State University, Northridge**

The major in Liberal Studies is designed primarily for students seeking the multiple subject (elementary) credential, but is open to all students. The major consists of 84 units, distributed equally among the following four components: (1) English, including Speech; (2) Science and Mathematics; (3) Social Science; (4) Humanities, Fine Arts, and Foreign Languages.

The completion of the Liberal Studies major automatically satisfies the General Education requirements of the University. The U.S. Constitution and History requirement of the State Education Code must be completed, however.

In order to complete the B.A. Degree **and** the partial credential within four years, students must plan their programs carefully. For this reason, students in this major are advised to consult with advisers at California State University, Northridge, including the Credentials Office of the School of Education, as early as possible.

The following Glendale Community College courses are required:

One course from: English 101, Speech 101. One course from: Chemistry 110, 141, 143; Physics 110; Physical Science 131. One course from: Geography 101, Geology 101, 105. One course from: History 101, 102, 103, 104, 106, 107, 108, 109, 110, 112, 117, 118, 119, 120. One course from: Psychology 101, Sociology 101. Also required are: Anthropology 102, Biology 122, English 102, Mathematics 138.

Electives may be taken from Political Science 101; Geography 105; History 110, 117, 118; Music 101, 120, 125, 126; Art 101, 102, 103, 106, 107, 108, 110; Physical Education 174, 179, 181, 182; and courses from the foreign languages, literature, and philosophy.

#### **Librarianship**

There are five graduate library schools in California: they are located at California State University, Fullerton; California State University, San Jose (see below); University of Southern California; University of California at Los Angeles, and at Berkeley. Berkeley now has an officially accredited program leading to Library Services Credential.

The program at Berkeley is a graduate program offering courses leading to the MLS, Ph.D. and DLS degrees, though three courses are offered to undergraduates. The program at UCLA is also primarily a graduate program offering courses leading to the MLS, though two courses are offered to un-

dergraduates. UCLA and CSU Fullerton are officially accredited by the State of California for their programs leading to a Library Services Credential (School Library Media Specialist). Librarians with a Master's Degree in Library Science also qualify for service in a community college under the provisions of the Community College credential. Librarians who work in public libraries, private institutions of higher education, or in industry need no credentials. Both UCLA and UCB offer courses that partially fulfill credential requirements. However, a different type of credential called a Librarianship credential is available to the holder of a Master's Degree in Library Science.

Students should study very carefully the announcements of all five institutions, for no two have exactly the same entrance requirements, or feature the same course offerings.

In general, the broadest preparation possible is best, and it should include at least two years of modern foreign languages. See page 226.

#### **San Jose State University**

The department offers a series of graduate programs that are designed to train personnel for all types of libraries.

Students planning to qualify as school librarians in California may begin work for the Special Services Credential in School Media Librarianship to accompany an elementary or secondary teaching credential during the senior year. The 100-level courses are open to those undergraduates who, during their senior year, have completed all requirements for an academic major and have time available for elective courses. Since the major part of the professional librarianship course work will be taken during the fifth year of the credential preparation program, the student has the opportunity to develop a strong academic background during the undergraduate years. It is highly desirable that students become acquainted with as many branches of knowledge as possible. Students are expected to have competency in at least one modern foreign language. To be eligible to complete the graduate year course work for the Special Services Credential in School Media Librarianship the student must meet the requirements established for all persons entering the Master of Arts degree programs in librarianship. (See degree requirements outlined in the Graduate Bulletin).

Lib 1 and Lib 100 are service courses open to all students who wish to strengthen their background in the use of library resources.

#### **Management Northrop University**

The four-year Management Curriculum is designed to serve the needs of business and government for qualified management personnel. Students planning on continuing their education into this management curriculum can take the following courses for maximum transfer credit:

Business 101, 102, 111, 112, 122, 130, 135, 137, 138, 147, 161, 171; Chemistry 101; Economics 101, 102; English 101, 102; History 117 or 118; Physics 101; Psychology 102.

**Mathematics** **California State University, Northridge**  
Mathematics 103, 104, 105; Mathematics 130 or Business 129; students take CSUN Mathematics 280 after transfer.

**Medical Technologist  
(Clinical Microbiology)** The University of California School of Medicine (San Francisco) offers a one-year (four quarters) curriculum to students preparing to be medical technologists in Clinical Microbiology. To be admitted to this curriculum, students must have a Bachelor's Degree including a major in one of the microbiological sciences with completion of certain required courses. Students should consult the Announcement of the Allied Health Professions of the University of California School of Medicine (San Francisco) for a list of the required courses and for details of this curriculum.

**Medicine** Pre-medical Studies: Four Years

Students who intend to apply for admission to a medical school and who wish to complete the requirements for a Bachelor's Degree before such admission should select a major within the College. In addition to fulfilling the requirements for the chosen major, the student is advised to ascertain and satisfy the specific requirements for medical schools to which he expects to apply.

Pre-medical Curriculum: Three Years

It is assumed that as preparation for this curriculum the student will have completed in high school the following subjects: English, three units; United States history, one unit; Mathematics, two units; chemistry, one unit; physics, one unit; foreign language (preferably French or German), two units. It is desirable that a course in freehand drawing be taken in high school\*. If possible, the student should also complete in high school intermediate algebra,  $\frac{1}{2}$  unit, and trigonometry,  $\frac{1}{2}$  unit, because these courses cannot be taken in the university. It is important for the students to bear in mind that the class entering the School of Medicine is limited; in the past, there have been a great many more applicants than could be admitted. (Pre-medical students who, upon the conclusion of their third year find themselves thus excluded from the School of Medicine, may be unable to obtain the Bachelor's Degree in the College of Letters and Science at the end of the fourth year unless they plan their programs with this contingency in mind. They should, therefore, either enter a major, selecting one with the assistance of a pre-medical advisor, at the beginning of the third year, at the same time meeting all pre-medical requirements, or include in their pre-medical program a sufficient number of appropriate courses in some major department). Provision for the completion of such a major will not prejudice the student's eligibility for admission to the School of Medicine.

\*At University of California, San Francisco, high school freehand drawing is not necessary.

**Stanford University**

The Medical College Admission Test is required of all applicants.

While Stanford does accept an occasional student who presents only three years of undergraduate work at the time of matriculation in Medical School, preference in the selection process is given to those who will obtain the Baccalaureate Degree before entering Stanford.

Biological Sciences	10 units
Biology 101, 102	
Chemistry	16 units
Chemistry 101, 102, 103, 105, 106	
Physics	8 units
Physics 101, 102, 103	
Recommended:	
English	6 units
English 101, 102	
Mathematics	20 units
Mathematics 103, 104, 105, 106	

**University of California, Irvine—California College of Medicine**

Applicants must have completed with satisfactory scholarship not less than ninety semester units or the equivalent number of quarter units of pre-medical work in an accredited institution of higher learning. Junior college credit is granted only to the extent admissible upon transfer to a four-year institution. The following courses are required: Chemistry 101-102, 105-106; Physics 105-106; Biology\* 101-102. Additional work should apply toward the elective and general education requirements along with courses in English, comparative anatomy, genetics, and mathematics.

\*One and one-half years of Biology is required, one (1) year of which must include General Biology.

**University of California, Davis**

Biology 101-102  
 Chemistry 101-102, 105-106  
 English 101-102  
 Mathematics 103-104-105  
 Physics 105-106

**University of California, Los Angeles**

The following courses are required:

English 101, 102  
 Physics 105-106

Chemistry:

Inorganic chemistry—Chemistry 101-102  
 Organic chemistry—Chemistry 105-106  
 Quantitative chemistry—Chemistry 103  
 Biology 101-102  
 Mathematics 103 (104 is recommended)

(Biology 138, Biology 134 or Mathematics 132, Mathematics 132 or Mathematics 134 offered at UCLA or equivalent must be completed for admission. Physical chemistry is recommended).

**University of California, San Francisco**

Ninety semester units of college work (60 units pre-medical in lower division school) is a minimum requirement for admission to the School of Medicine. These units must include the subjects in the following list:

Biology 101, 102

Chemistry 101-102, 105

Physics 101-102-103, or 105-106

Detailed description of course requirements is available in the announcement of the School of Medicine, San Francisco.

**University of Southern California**

The completion of the following studies is required: Chemistry 101-102, 105-106; English 101-102; Physics 105-106; and Biology 101-102. It is recommended that additional courses be selected from the requirements in the College of Letters, Arts, and Sciences shown on page 256.

**Loma Linda University**

The completion of the following studies is required: Biology 101-102; Chemistry 101-102, 105-106; English 101-102; Physics 105-106; Recommended: Chemistry 107; Mathematics 103, 104, 105.

**Natural Resources, School of**

**Humboldt State University**

At Humboldt State University, the student may obtain a Bachelor of Science Degree in Fisheries, Forestry, Wildlife Management, Oceanography, Resource Planning and Interpretation, and Range Management. An M.S. Degree in Natural Resources is available in Watershed Management as well as all of the fields listed above.

These programs lead to employment by state, federal, or private agencies concerned with water, land, and animal research, and management. Emphasis in water pollution is possible.

For these majors one should carefully check the Humboldt State University catalog for lower division requirements in physical science, biological science, and mathematics.

Note: Effective Fall 1977, minimum "C" grade will be required for each course.

**Nursing—(R.N.)**

Students wishing to enter a professional school of nursing should consult the catalog of the school they wish to enter.

**California State University, Los Angeles**

Anthropology 102, Biology 112, 120, 121; Chemistry 101-102 or 110\*, Sociology 101, Home Arts 125, Psychology 101.

\*Students will take the lower division Nursing Courses, and Chemistry 152\* at California State University, Los Angeles.

**University of California at Los Angeles**

Students not already admitted to UCLA must submit separate applications for admission to the University and to the School of Nursing.

Application forms for admission to the University may be obtained from the Director of Admissions, 1147 Murphy Hall, University of California, Los Angeles, California 90024. Transcripts of all school work should be submitted in duplicate to the Office of Admissions with the application.

Applications for acceptance to the School of Nursing may be obtained from the School of Nursing, Center for the Health Sciences, University of California, Los Angeles, California 90024. An additional copy of all transcripts should be submitted to the School of Nursing with the application.

Deadline for applications for admission to the University and to the School of Nursing depends upon the number of applications received. Applications are accepted after November 1 of each year.

**Preparation of the Major**

Completion of 21 acceptable courses of college work or 84 quarter credits is the minimum requirement for acceptance to the School of Nursing. These courses include the following listed prerequisites which must be completed by the fall of anticipated entrance. Students applying to the baccalaureate program beginning fall 1976 must complete this revised list of prerequisites.

Note: All prerequisite courses are to be taken for a letter grade.

General University Requirements	Units
Subject A	
American History and Institutions	
School of Nursing Prerequisites	
One course in English composition (English 101)	3
Chemistry 101-102	10
Physics 105*	4
Biology 101-102, 112	13
Anthropology 102	3
Psychology 101	3
Sociology 101	3
Home Arts 125	2
Electives	26-40

\*Physics 105 is waived for students who have completed a one-year high school laboratory course.

**University of California, San Francisco**

Completion of 56 semester units of college work acceptable for transfer is a minimum requirement for admission to the School of Nursing. These units must include the subjects in the following list: Chemistry 101; Biology 120, 121; English 101, 102; Psychology 101, Sociology 101; Humanities (2 courses in the category required); Electives.

Recommended Elective Courses: ethnic studies, foreign language, cultural anthropology, microbiology, organic chemistry, American History and Institutions.

**Oceanography Scripps Institution of Oceanography**

Candidates for admission to the Graduate Department of the Scripps Institution of Oceanography should have a bachelor's or master's degree in one of the physical, biological, or earth sciences; in some cases a degree in mathematics or engineering science is accepted. The student's preparation should include:

1. Mathematics through differential and integral calculus—Mathematics 103-104-105-106
2. Physics, one year with laboratory (the course should stress the fundamentals of mechanics, electricity, magnetism, optics, and thermodynamics and should use calculus in its exposition)—Physics 105-106 or 101-102
3. Chemistry, one year with laboratory—Chemistry 101-102
4. An additional year of physics or chemistry — Chemistry 105-106 or Physics 103.
5. Biology and geology, minimum of one quarter each—Biology 101-102, Geology 105-110
6. Preparation in at least one foreign language  
German, Russian, Spanish, or French. (Spanish may *not* be used, however, for the marine biology program)
7. Applicants for admission are required to submit scores on the verbal and quantitative tests of the Graduate Record Examination given by the Educational Testing Service of Princeton, New Jersey.

For specific additional requirements for admission to the various curricular programs see: Scripps Institution of Oceanography Catalog.

**Optometry University of California, Berkeley**

The School of Optometry offers a four-year curriculum leading to the Doctor of Optometry Degree. Eligible for admission consideration are students who have completed the requirements for the Degree of Associate in Arts in the College of Letters and Science, and also the prerequisite subjects for the study of optometry with a minimum grade point average of 2.25.

The following courses are required: Chemistry 101-102, 105-106; Economics 107 or Psychology 107; Mathematics 103-104; English 101-102; Physics 105-106; Psychology 101; Biology 101-102.

The following course is recommended: Psychology 102.

**Southern California College of Optometry**

Requires 60 units for entrance including:

Chemistry 101, 102

English 101-102

Art, Music, Literature 3 units\*

Biology 101, 102

Foreign Language 8 units\*

Mathematics 103

Psychology 101-102

Biology 112

Philosophy 101\*

Physics 105-106

\*Optional for Bachelor of Science Degree candidates.

**Optometric Technician's  
Program**

**Southern California College of Optometry**

The following courses taken at Glendale Community College will satisfy the first year prerequisites for the Optometric Technician's Program:

Biology 122

Business 101 or 105; Business 231 and 241;

English 101-102; any history course; Mathematics 101;

Psychology 101; Music 120 or Art 101

**Pharmacy**

**University of California, San Francisco**

Completion of sixty units of college work is a minimum requirement for admission to the School of Pharmacy. These units must include the subjects in the following list.

Biology 101-102\*

Chemistry 101-102, 103

English 101-102

Mathematics 103-104

Physics 105-106

Electives

\*A year course in general biology of six semester units plus four semester units of vertebrate zoology, or two semesters of zoology may be substituted. Students who have completed courses in botany may use these units to satisfy the 60 semester unit requirement for admission to the School but not to satisfy the biology requirement.

**University of Southern California**

Admission requires two years (60 semester units) of acceptable college work including the following courses:

Biology 101-102

Chemistry 101-102, 105-106

Economics 102

English 101-102

Mathematics 103; Mathematics 104 is strongly recommended

Physics 105-106

Psychology 101

Electives (12 units in Humanities or additional Social Sciences)

**Physical Education Teacher**

A student planning to become a physical education teacher should consult the write-up under "Teaching" for teacher credential requirements. While at Glendale Community College mastery of skills in a variety of physical education activities should be attained by taking at least two activity classes each semester and the following theory courses are recommended: Health 101, 104; Physical Education 120, 195; Recreation Leadership 109; Biology 120 and 121.



**Physical Therapy** Physical therapists treat patients who have disabilities resulting from accidents, congenital defects, or illnesses. On referral by a physician, they (1) evaluate the capabilities of patients by various physical tests; (2) treat patients by using therapeutic exercise and physical agents; such as, heat, cold, electricity, and ultrasound; and (3) teach patients and their families appropriate home treatment and care—all with the aim of achieving the greatest possible restoration of function.

Students planning to enter the field should complete two or three years at Glendale Community College and transfer to an institution offering a Bachelor's Degree in physical therapy, or complete the work for the Bachelor's Degree and apply for admission to a Certificate or a Master's Degree program. Prerequisite courses are required.

Accredited programs are approved by the Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. Seven such programs are available in California: University of California, San Francisco; Stanford University, Palo Alto (graduate level only), Children's Hospital, Los Angeles; Loma Linda University, Loma Linda; California State University, Fresno, Long Beach and Northridge. The prerequisite courses and the type and length of the curricula vary: for information, write to the Directors of the Physical Therapy Program.

Note: Students should plan to spend at least one year in the academic community at the university at which they intend to complete the work in physical therapy.

Work experience is required in most cases.

#### **University of Southern California**

In preparation for admission to the Department of Physical Therapy at the University of Southern California, students should complete the requirements shown for the College of Letters, Arts, and Sciences on page 256 as well as additional requirements in Natural Sciences. Science credit must include Biology 101-102, 120, 121; Chemistry 101, 102; Physics 105, 106. Psychology 101 should be taken as one of the Social Sciences, along with two additional Psychology courses to be completed after transfer.

**Physics** Students planning to major in physics should follow the lower division requirements of the College of Letters and Science for colleges and universities to which they intend to transfer. In addition, the following required and recommended subjects should be included:

Required: Physics 101, 102, 103; Chemistry 101, 102; Mathematics 103, 104, 105, 106.

Recommended: A reading knowledge of German and French; Engineering 141.

#### **California State University, Northridge**

Mathematics 103, 104, 105, 106; Physics 101, 102, 103; Chemistry 101, 102.

**Podiatry California College of Podiatric Medicine, San Francisco**

The California College of Podiatric Medicine is a private, non-profit institution. The college conducts a no option accelerated program whereby the student completes the podiatric medical curriculum in three calendar years.

The minimum requirements for admission to the college are successful completion of the Colleges of Podiatry Admission Test (CPAT) and three academic years of study at an accredited college or university. This must consist of a minimum of 90 semester hours or 120 quarter hours of instruction which include the following: English 101, 102; Biology 101, 102; Chemistry 101, 102, 105; Physics 105, 106; Humanities and Social Science 12 units.

Applicants should be aware that survey science courses are not acceptable as fulfillment of all or part of the science requirements outlined above.

Additional background in Chemistry, Embryology, Comparative Anatomy, Mathematics, Physics, and Public Speaking is recommended. The students may have majored in any subject—the Natural Sciences, Social Sciences, Humanities, or Arts—but evidence of a balanced education as well as demonstrated interest and ability in the Natural Sciences is preferred.

Applicants are required to take the Colleges of Podiatry Admission Test (CPAT). This test is designed to measure verbal, quantitative, and natural science aptitude.

A letter of evaluation is required from the Pre-Professional Advisory Committee of the college or university which the student has attended. If there is no such Committee at his pre-professional school, three faculty recommendations (including at least two from science instructors) must be submitted.

The deadline for applying to the College is February 1, 1977 for the academic year beginning July 1977 of the year for which the student wishes to be considered for admission.

**Political Science** Students majoring in political science should follow the program of studies outlined in the lower division requirements of the College of Letters and Science of the college or university to which they intend to transfer. See page 226.

**University of California at Berkeley**

Required: Political Science 101, 102.

Strongly recommended: Allied subjects in social sciences: appropriate courses in lower division from: Anthropology 102; Economics 101-102; Geography 101-102; History, any course; Philosophy 119-120, 116, 117; Psychology 101-102 and Sociology 101-102.

**Psychobiology** The lower division requirements of the College of Letters and Science of the college or university to which they intend to transfer should be followed by students planning to major in Psychobiology.

**University of California at Los Angeles**

Required: Biology 101, 102; Chemistry 101, 102, 105; Business 129 or Mathematics 130; Mathematics 103, 104; Physics 105, 106; Psychology 101, 107.

Note: This major is an alternative to the general Psychology Major and is designed for students who plan to go on to graduate work in Psychobiology or the Health Sciences.

**Psychology**

The lower division requirements of the College of Letters and Science of the college or university to which they intend to transfer should be followed by students planning to major in psychology.

See page 226.

**California State University, Los Angeles**

Required: Psychology 101.

Required support courses:

A: Select one from: Chemistry 101 or 102; Physics 105 or 106

B: Select one from: Biology 101, 120, 121

C: Select one from the following or an additional course from "A" or "B" above: Anthropology 101, 102; Philosophy 117

Recommended: Foreign language (8 units).

**California State University, Northridge**

Required: Psychology 101, 107. Students take Psychology 250 at CSUN after transfer.

Recommended: Biology, Mathematics, Philosophy, Social Science.

**University of California at Los Angeles**

Required: Psychology 101, 107; Biology 101; a course in Physics and Chemistry (Physics 105, or 110 and Chemistry 101 or 110); Mathematics 103, 104; Anthropology 101; Business 129 or Mathematics 130.

Note: The major in psychology or sociology is highly desirable in preparation for graduate study in social work or para-professional work in the field of health.

**Public Health**

**School of Public Health, University of California, Los Angeles**

The School of Public Health offers undergraduate instruction leading to the Bachelor of Science degree as well as graduate instruction leading to the Master of Science, Master of Public Health, Doctor of Philosophy, and Doctor of Public Health degrees. Public Health is a broad, multidisciplinary field of study directed toward the understanding and control of factors affecting the health of populations. Public Health relies heavily on research methods to identify important health relationships and uses the community or social approach to the problems of health and disease in their preventive or therapeutic aspects. The concerns of public health cut across national boundaries, and include the functions of both voluntary and governmental agencies and of research and teaching institutions.

Students may prepare themselves for careers in such basic specialties as epidemiology, biostatistics, nutritional sciences and environmental health. They may also prepare themselves for the newer challenges of community well-being such as the operation of hospitals, the health education of the public, organization of medical care, community health services administration, behavioral sciences in public health, family planning, and international health.

### **Undergraduate Curricula**

The Bachelor of Science is a two-year degree program for students in the junior and senior years. Students may select a major from: Biostatistics, environmental health, health education, health records science, and nutritional sciences. Except for the major in health records science, admission is limited to student transfers within the University of California. Students from other colleges or universities who are interested in the health records science major must meet the general University requirements for admission. Two applications must be filed. One with the Office of Student Affairs, School of Public Health, University of California, Los Angeles 90024 and the other application may be obtained from the Director of Admissions, 1147 Murphy Hall, University of California, Los Angeles 90024. A fee of \$20 must accompany this last application. (If check or money order, make check payable to the Regents of the University of California.)

Applications should be filed well in advance of March 15 of the year in which the student wishes to be admitted, as most students are admitted for the fall quarter.

Students preparing for admission should take: (1) two years of one foreign language in high school; (2) two years of high school mathematics; (3) English 101; (4) Chemistry 101-102; (5) Biology 101-102; (6) Mathematics 103-104; (7) satisfy the American History and Institutions requirement (History 117-118 recommended); (8) three courses in social sciences; (9) three courses in humanities; (10) Chemistry 105-106 required for students who plan to major in Nutritional Science and coordinated undergraduate dietetics; (11) Additional courses in chemistry, mathematics or physics as recommended by the student's advisor. Applicants must also have completed at least 84 quarter units of acceptable work with a 2.00 (C) grade point average. Those presenting more than 90 quarter units will be admitted only if they can complete all degree requirements within the School limit of 208 quarter units.

**Speech** A curriculum designed to train students in the speech arts for the areas of public speaking, group discussion, radio, and television. Recommended courses for students who plan to pursue a speech major should include: Speech 101-102; Theater Arts 103; Fundamentals of Oral Interpretation; and speech for radio and television.

**Teaching** A credential of the proper type is necessary for teaching in the public schools of the various states. Students planning to become teachers in California must complete the requirements for the type of credential which they expect to use. The Ryan Act passed by the California State Legislature

in 1970, details credential regulations; the implementation of this law is the responsibility of the Commission on Teacher Preparation and Licensing in conjunction with those colleges and universities which have approved programs for the various California credentials.

Specialization in Elementary and Secondary teaching requires a B.A. degree, a fifth year consisting of 30 semester units of upper division or graduate work, and specific preparation in general education and professional education. Students who are interested in a teaching career in California should consult the requirements of the teacher training institution of their choice.

Specialization in Community College teaching requires a Master's Degree, Doctor's Degree or other postgraduate degree requiring not less than five years of college or university education. This preparation can be in most areas other than professional education.

Students enrolled in the Human Services Aide Program at Glendale Community College should consult their counselor regarding transfer courses and lower division major requirements.

### **California State University, Los Angeles**

#### **Multiple Subject Teaching Credential**

To obtain the Multiple Subjects Teaching Credential students may major in any one of the following approved programs at California State University, Los Angeles: Liberal Studies, Child Development, American Studies, Mexican American Studies, or Pan African Studies. Students should also contact the School of Education at California State University, Los Angeles in reference to the professional education courses required for the credential.

### **Pacific Oaks College, Teaching Preschool and Elementary School**

This career requires as much interest in children themselves as in curriculum content. Preparation for teaching children includes (1) psychology, sociology, anthropology and biology content which builds understanding of human development and (2) broad knowledge of the humanities and sciences. Pacific Oaks specializes in preparation for infancy through the 6th grade.

Pacific Oaks curriculum prepares for teaching in a wide variety of programs including Day Care, Head Start and elementary school and also for advanced study leading to such careers as parent education leadership, child welfare work, research, child development laboratory and community college teaching, and early childhood administration and supervision.

A student may enroll in a program leading to a California State Multiple Subjects Teaching Credential, which authorizes teaching in preschool through 12th grade in self-contained classrooms. To get a preliminary credential, students in this program must complete a B.A. with either (a) a Diversified Major or (b) a Human Development major and pass a State exam. The professional preparation may be included as part of the B.A. program or completed in a 5th year post-baccalaureate program.

Completion of the recommended transfer program for Pacific Oaks College (see page 253) will also meet minimum requirements for the State permit for employment in Children's Centers, if the following electives are included: Family and Consumer Studies 135, 140, 142.

### **Veterinary Medicine**

Veterinary medicine is the science and art that deals with the prevention, control, cure and alleviation of animal diseases and the prevention of the spreading of diseases from animals to man. Modern veterinary medicine is a profession that offers increasing opportunities for interesting and challenging careers.

The School of Veterinary Medicine offers a four-year curriculum leading to the Degree of Doctor of Veterinary Medicine. This training provides the technical knowledge necessary for work in veterinary practice, animal care and disease control, food quality control, and industrial veterinary medicine. Further specialization provides additional opportunities in teaching, biomedical research, and public health.

Nearly two-thirds of all veterinarians enter private practice. Many veterinarians are employed by the federal, state, and municipal governments. Veterinarians also hold positions in the United States Army and Air Force and in many areas of national defense, such as nuclear energy, atomic aircraft and rocketry, and space exploration. There are also many opportunities for teaching and research in schools, colleges, and medical research programs. Manufacturers of drugs and biological products, such as vaccines and animal feeds, and many other industries employ veterinarians.

The demand for graduate veterinarians far exceeds the supply. In the United States today many hundreds of additional veterinarians could be immediately placed in well-paying jobs.

Recent national surveys and projected needs indicate a growing demand for the professional services unique to the veterinarian. Despite expansion of existing schools of veterinary medicine, an essential deficit of graduate veterinarians will continue for many years.

A minimum of seven years of college is necessary to complete the requirements for the Degree, Doctor of Veterinary Medicine, however, for the past several years the D.V.M. graduates have averaged eight or more years of college.

The first step which must be completed is called the pre-veterinary medical curriculum. This consists of a series of required courses most of which can be completed in two years at the Glendale Community College. Additional required pre-professional work may be taken in any accredited university or four-year college. Following completion of the pre-professional medical curriculum the student applies for admission to the School of Veterinary Medicine. If he is accepted, he then begins the four-year professional curriculum in veterinary medicine. The Degree, Doctor of Veterinary Medicine, is awarded after successful completion of the four-year professional curriculum.

With the exception of vertebrate embryology, biochemistry, systemic physiology, and genetics the pre-professional medical curriculum may be completed at Glendale Community College. The following courses are required: Chemistry 101-102, 105; Physics 105-106; Biology 101-102; English 101 plus English 102 or Speech 101. To complete the required 60 units the student should select courses in the social sciences, humanities or biological sciences which will best prepare him for a Baccalaureate Degree after transfer to a four-year institution. Students will not be admitted to the School of Veterinary Medicine with less than three years of pre-professional work. The Aptitude Test and the Advanced Test in Biology of the Graduate Record Examination are required of all applicants.

Courses are listed in numerical order under department headings, which are in alphabetical order.

Each course is listed by number with the course title, the number of units and the number of hours of lecture and laboratory instruction per week. Preceding each description are listed the prerequisites of the course.

Whenever 'equivalent' is listed as an alternative prerequisite, it is understood to indicate knowledge and/or skills learned through personal experience, education, and/or training equivalent to listed prerequisite courses. The criteria for such equivalency are established by each instructional discipline to ascertain whether there has been sufficient mastery of the content of the academic prerequisite.

*Whether or not all courses described will be offered during the present academic year will depend on the student enrollment.*

#### **148—INTERNATIONAL FIELD STUDY      1-6 UNITS**

*Prerequisite:* Approval of program and units of credit attempted must be obtained from the Dean of Instruction prior to the foreign travel.

Provides units of credit for travel and study in foreign countries at the student's own expense in programs provided by agencies approved in advance by the College. One unit of elective credit to be offered for each six days of supervised foreign travel and study, up to a maximum of six units for 36 days. Fractional units cannot be earned.

#### **198—DEVELOPMENTAL STUDIES      14½ UNITS**

The Developmental Studies Program offers a diagnostic, prescriptive program dealing with the problems associated with low academic performance of college students.

This Program offers the student who has just completed high school and who has changed his attitude toward advanced education, an opportunity to overcome his scholastic weaknesses and set up realistic goals which may be attainable in line with his interest, aptitude and ability.

The Program has been developed to assist students who have personal inadequacies such as: lack of goals, inappropriate educational plans, lack of effective study habits, emotional disturbances, cultural deprivation and general inability to realize their academic or vocational potential. Students enrolling in the Developmental

Studies Program, which meets 8-11 a.m. daily, will carry fourteen and one-half units, including the following courses:

English 198—Reading Fiction, 2 units  
 English 199—Basic Communications, 6 units  
 Guidance 193—Psychology of Adjustment, 3 units  
 Guidance 195—Occupational Planning, 1 unit  
 Health and Physical Education Activity, ½ unit  
 Mathematics 150—Basic Mathematics, 2 units

In addition to the above described Program, a student may enroll in one other two unit class.

#### **150—COLLOQUIA      1-3 UNITS**

*Prerequisite:* English 101. Outstanding student performance and permission of instructor.

*Note:* 15 hours minimum of Colloquia per unit of credit.

Glendale Community College may make available in the curriculum of each division, lower division units of study known as colloquia. The purposes of a colloquium are to broaden a student's general education, to provide a means for a specific study in depth, to offer areas of study of meaningful interest to the student, to stimulate serious thought, and to encourage greater student-faculty relationships. Emphasis shall be on discussion and analysis based on subjects, issues, or ideas of continuing importance or lasting significance.

#### **148—NATIONAL FIELD STUDY      1-6 UNITS**

*Prerequisite:* Approval of program and units of credit attempted must be obtained from the Dean of Instruction prior to the domestic travel.

One unit of elective credit to be offered for six days of supervised travel and study up to a maximum of six units for 36 days, under the direction of a credentialed instructor.

#### **TELEVISION COURSES**

A few courses are available by television and are listed below. Television courses are not available each semester, but will be listed in the Schedule of Classes when they are offered.

Allied Health 225 (See page 111.)  
 Business 142 (See page 135.)  
 Business 150 (See page 135.)



English 115 (See page 152.)  
 Family and Consumer Studies 150 (See page 156.)  
 History 160 (See page 173.)  
 Home Arts 155 (See page 176.)  
 Home Arts 160 (See page 176.)  
 Physical Education 292 (See page 205.)  
 Real Estate 102 (See page 212.)  
 Social Science 150 (See page 216.)  
 Social Science 155 (See page 216.)

### OPEN ENROLLMENT

Unless specifically exempted by statute, every course, course section, or class for which average daily attendance is to be reported for state aid shall be open for enrollment and participation by any person who has been admitted to the College and who meets the prerequisites of such courses.

## Accounting

### PRINCIPLES OF ACCOUNTING

See *Business* 101, 102

### BOOKKEEPING

See *Business* 105, 106

### BUSINESS DATA PROCESSING

See *Business* 122, 124, 127, 128, 129, 130, 135, 137, 138.

## Administration of Justice

(Formerly Police Science)

Classes in Administration of Justice are offered in the Extended Day program for students interested in preparing for careers in a wide variety of fields related to

law enforcement and judicial procedures. Since many of the students taking the courses are employed on shifts which change from time to time, identical afternoon and evening classes are scheduled for many of the courses. A Certificate of Completion may be earned.

### 101—INTRODUCTION TO THE ADMINISTRATION OF JUSTICE (Formerly Police Science 101) 3 UNITS

*Prerequisite:* None

Administration of Justice 101 covers the history and philosophy of administration of justice in America; recapitulation of the system; identification of the various sub-systems, role expectations, and their interrelationships; theories of crime, punishment, and rehabilitation; ethics, education, and training for professionalism in the system.

Lecture 3 hours.

### 103—CONCEPTS OF CRIMINAL LAW I 3 UNITS (Formerly Police Science 103)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or Sociology 101, or equivalent.

Administration of Justice 103 teaches the historical development, philosophy of law, and constitutional provisions; definitions, classifications 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.

Lecture 3 hours.

### 104—CONCEPTS OF CRIMINAL LAW II 3 UNITS (Formerly Police Science 104)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or Sociology 101, or equivalent.

Administration of Justice 104 presents the development and structure as well as the definition of the most frequently used statutes of the Penal Code, Health and Safety Code, and other codes. An in-depth study of case law relating to the various statutes is made.

Lecture 3 hours.



**106—LAW ENFORCEMENT IN URBAN AMERICA**                      **3 UNITS**  
**(Formerly Police Science 106)**

*Prerequisite:* None.

Intended for the general public, this historical overview is not recommended for police officers. Covers the evolution of justice and law enforcement as a means of achieving social harmony. An analysis of the different police systems that have resulted in the development of today's police organization. An examination of the present police system, its organization, functions, and problems. The nature of crime and social disorder and prospects for the future in American Law Enforcement. In-depth analysis of the relationships and responsibilities between a police agency and the public it serves.

Lecture 3 hours.

**107—COMMUNITY RELATIONS**                      **3 UNITS**  
**(Formerly Police Science 107)**

*Prerequisite:* None

In-depth exploration of the roles of administration of justice practitioners and their agencies. Through interaction and study, the student will become aware of the interrelationships and role expectations among the various agencies and the public. Principal emphasis is placed upon the professional image of the system of administration of justice and the development of positive relationships between members of the system and the public.

Lecture 3 hours.

**108—POLICE PATROL PROCEDURES**                      **3 UNITS**  
**(Formerly Police Science 108)**

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Designed to develop basic understandings and a reasonable degree of skill with reference to the following problems and practices: responsibilities, powers, and duties of the uniformed and patrol officer; patrol procedure; foot patrol, vehicle patrol and observation; field interrogation, pedestrians, vehicles; preliminary handling of field problems; stakeouts; arrest and transportation of prisoners; booking of property; marking

and handling of evidence; report writing; civil disputes; special events; controlling crowds, and how to handle riots.

Lecture 3 hours.

**110—PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM**                      **3 UNITS**  
**(Formerly Police Science 110)**

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Administration of Justice 110 presents an in-depth study of the role and responsibilities of each segment within the administration of justice system: Law enforcement, judicial, corrections. A past, present, and future exposure to each sub-system procedures from initial entry to final disposition and the relationship each segment maintains with its system members.

Lecture 3 hours.

**112—CALIFORNIA VEHICLE CODE**                      **3 UNITS**  
**(Formerly Police Science 112)**

*Prerequisite:* None.

A study of the Vehicle Code of the State of California as it pertains to Law Enforcement Officers and discussions of leading court cases. Covers Vehicle Code definitions, organization of the DMV and CHP. Also registration and licensing, financial responsibility and laws regulating the operation of garages, repair shops, service stations, and driving schools. Study of the "Rules of the Road" covering all moving vehicle violations, parking, pedestrian, and equipment violations.

Lecture 3 hours.

**114—TRAFFIC CONTROL**                      **3 UNITS**  
**(Formerly Police Science 114)**

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

A study of the principles and practices of accident investigation including the purposes of investigation, selective enforcement procedure and data use, hit-and-run accidents, determination of speed from skid marks, the nature and use of the intoxication testing devices,

and field practice in actual cases.

Lecture 3 hours.

**116—CRIMINAL INVESTIGATION 3 UNITS**  
(Formerly Police Science 116)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interviews and interrogation; follow-up and case preparation.

Lecture 3 hours.

**117—CRISIS INTERVENTION 2 UNITS**

*Prerequisite:* Administration of Justice 116 or equivalent.

Administration of Justice 117 is designed to provide those skills and understanding necessary to deal effectively with disputes between landlord and tenant, members of a family, and acquaintances. The course also addresses day-to-day problems that arise in domestic situations.

Lecture 3 hours.

**118—JUVENILE PROCEDURES 3 UNITS**  
(Formerly Police Science 118)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or Sociology 101, or equivalent.

The organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.

Lecture 3 hours.

**120—LEGAL ASPECTS OF EVIDENCE 3 UNITS**  
(Formerly Police Science 120)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Administration of Justice 120 is concerning the origin, development, philosophy, and constitutional and procedural considerations affecting arrest, search, and

seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.

Lecture 3 hours.

**122—POLICE CIVIL LAW 3 UNITS**  
(Formerly Police Science 122)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Designed for peace officers, security personnel, probationary personnel, and youth authority personnel, this course surveys the fundamentals of the law of contracts, torts, and personal property, including liens, landlord, and tenant. Emphasis is placed upon legal reasoning and analysis through a study of court decisions.

Lecture 3 hours.

**124—PHYSICAL ASPECTS OF ARREST 3 UNITS**  
(Formerly Police Science 124)

*Prerequisite:* Administration of Justice 101, and six other units in Administration of Justice courses, or equivalent.

Administration of Justice 124 is a course to help students learn methods and techniques of self-defense, disarmament, use of the baton, civil disturbance formations, and the use of tear gas. Also taught are the techniques on how to interview suspects and witnesses, how to stop and search automobiles, how to apprehend prowlers, and the important points on how to make misdemeanor and felony arrests.

Lecture 3 hours.

**126—FIREARMS ASPECTS OF LEGAL FORCE 1 UNIT**  
(Formerly Police Science 126)

*Prerequisite:* Satisfactory completion of 12 units of Administration of Justice courses.

The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of sidearms and shotguns.

Lecture ~~3 hours for 5 weeks~~ <sup>2 hours for 9 weeks</sup>, laboratory 4 hours for 4 weeks.

**129—NARCOTICS AND DRUGS 3 UNITS**  
(Formerly Police Science 129)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently.

Designed to give all levels of law enforcement officers a fundamental understanding of narcotic addiction and the effects of hypnotic drugs as these factors are involved in the daily routine of police work. The principles of detecting and investigating narcotic offenders.

Lecture 3 hours.

**130—POLICE SUPERVISION 3 UNITS**  
(Formerly Police Science 130)

*Prerequisite:* Administration of Justice 101, or equivalent.

Designed to provide an overview of the basic concepts, problems, issues, and concerns of today's modern police supervision, this is an introductory study of the complex and expansive field of police supervision. Three major divisions of police supervision will be examined and specifically evaluated: the preparation of the individual officer or sergeant for future promotional examinations, the current major police supervision principles and various dominant supervision ideologies within modern police organizations, and a concentration on proven techniques and skills required in the practice of sound supervision in police service.

Lecture 3 hours.

**132—ADMINISTRATION OF JUSTICE 3 UNITS**  
**POLICE MANAGEMENT**

*Prerequisite:* Three Administration of Justice courses or equivalent.

Designed to provide the student with an introductory multidimensional approach to the structure and functions of effective first level police management theory and practice. Traces the three broad fields of public personnel and bureaucratic management as they apply to police personnel. Special explorations conducted into the lieutenant level of police personnel and organizational management.

Lecture 3 hours.

**134—REPORT WRITING 3 UNITS**  
(Formerly Police Science 134)

*Prerequisite:* None.

A survey of report writing and Records and Identification Bureaus. A study to aid the police officer to analyze what he sees, and to make a permanent and coherent record of facts to be used in criminal prosecution and administration procedures.

Lecture 3 hours.

**136—INTERROGATION AND LIE 3 UNITS**  
**DETECTION**  
(Formerly Police Science 136)

*Prerequisite:* Administration of Justice 101 should precede or be taken concurrently, or equivalent.

Principles and psychology in interviews and interrogation. Methods of handling victims, witnesses, informants, and suspects. Information evaluation. Civilian interview versus police interrogation. Rules of evidence regarding court acceptance of confessions, admissions, *res gestae*. Study of mechanical truth devices, truth serums, types of approaches, interview preparation.

Lecture 3 hours.

## Allied Health

(Formerly Vocational Nursing)

Credit for all course work is granted by the College and is recorded on the official transcript; however, approximately 20 to 23 hours per week are scheduled in clinical areas of local hospitals.

**101—NURSING FUNDAMENTALS 5 UNITS**  
(Formerly Vocational Nursing 101)

*Prerequisite:* Acceptable Pre-registration Examination scores. Chemistry 115 must be taken concurrently.

*Note:* Concurrent enrollment in Allied Health 103, 105, 107.

Allied Health 101 is a study leading to the understanding of psychological and physiological aspects which are common to all conditions of illness. Emphasis is placed on interpersonal, technical, and motor skills required for competency of a specific nursing task inventory.

Lecture-laboratory 4 hours, 21 clinical hours.

**103—PHARMACOLOGY FOR NURSES 3 UNITS**  
(Formerly Vocational Nursing 103)

*Prerequisite:* A satisfactory score on the Mathematics Proficiency Examination. Chemistry 115 must be taken concurrently.

*Note:* Concurrent enrollment in Allied Health 101, 105, 107.

Study leading to mastery of computational skills for the solution and dosages of drugs. Knowledge of federal and state regulation of drugs. Manual skills and knowledge of drugs, their classifications, desired effects, contraindications, and toxic effects for safe administering of medications by all routes except intravenous.

Lecture 3 hours, 46 clinical hours individually supervised followed by total patient care.

**105—LIFE SCIENCES FOR HEALTH TECHNOLOGY I 2 UNITS**  
(Formerly Vocational Nursing 105)

*Prerequisite:* Satisfactory score on Pre-registration Examinations. Chemistry 115 must be taken concurrently.

*Note:* Concurrent enrollment in Allied Health 101, 103, 107.

Allied Health 105 is a study leading to the understanding of basic concepts in physical sciences and the normal anatomical and physiological functioning of the human body. Application of broad general principles in caring for medical and surgical patients of all ages is stressed.

Lecture 2 hours.

**107—MEDICAL AND SURGICAL NURSING I 5 UNITS**  
(Formerly Vocational Nursing 107)

*Prerequisite:* Acceptance into the course. Chemistry 115 must be taken concurrently.

*Note:* Concurrent enrollment in Allied Health 101, 103, 105.

Study of pathological conditions of the human body which are amenable to medical and surgical correction in all age groups. The course includes the study and mastery of a task inventory of nursing procedures that are unique to specific body systems.

Lecture 2 hours, 28 clinical hours.

**110—LIFE SCIENCES FOR HEALTH TECHNOLOGY II 2 UNITS**  
(Formerly Vocational Nursing 110)

*Prerequisite:* Successful completion of Allied Health 105.

Allied Health 110 is a study of the normal anatomical and physiological functioning of the human body. The study will include those systems not covered in Allied Health 105.

Lecture 2 hours.

**112—MEDICAL AND SURGICAL NURSING II 6 UNITS**  
(Formerly Vocational Nursing 112)

*Prerequisite:* Successful completion of Allied Health 107.

Allied Health 112 is an intermediate study of pathological conditions of the human body amenable to medical and surgical correction. The course includes the study and mastery of a task inventory of nursing procedures that are unique to specific systems.

Lecture 2 hours, 23 clinical hours.

**114—OBSTETRICS AND CARE OF THE NEWBORN 3 UNITS**  
(Formerly Vocational Nursing 114)

*Prerequisite:* Completion of Semester I and registration in Allied Health 110, 112, 116, 118, 120.

Allied Health 114 is a study leading to the understanding of the reproductive process with emphasis on the normal birth process, post partum care of the mother, and care of the newborn and the premature infant. Study of complications that threaten maternal and fetal mortality and psychological adjustments in family life is included.

Lecture 3 hours, 24 clinical hours.

**116—INTRODUCTORY PEDIATRICS 3 UNITS**  
(Formerly Vocational Nursing 116)

*Prerequisite:* Completion of Semester I and registration in Allied Health 110, 112, 114, 118, 120.

Allied Health 116 is a study to understand the normal developmental process from infancy to adolescence; knowledge of common pathological childhood conditions with emphasis on contagious diseases and their control. Study of psychological problems that are com-

## 110 ALLIED HEALTH

---

mon to adaptive and maladaptive behavior in the child.  
Lecture 3 hours, 24 clinical hours.

### 118—BASIC NUTRITION 1 UNIT (Formerly Vocational Nursing 118)

*Prerequisite:* Completion of Semester I and registration in Allied Health 110, 112, 114, 116, 120.

Allied Health 118 is the study leading to the understanding of basic nutritional requirements for health, and dietary modifications indicated for medical and surgical conditions. Survey of metabolic disturbances and corrective approaches is included.

Lecture 2 hours.

### 120—COMMUNITY HEALTH 1 UNIT (Formerly Vocational Nursing 120)

*Prerequisite:* Completion of Semester I and registration in Allied Health 110, 112, 114, 116, 118.

Allied Health 120 is a study of federal, state, county, and volunteer agencies that regulate and maintain optimal health conditions in the community.

Lecture 2 hours.

### 130—MEDICAL AND SURGICAL 7 UNITS NURSING III (Formerly Vocational Nursing 130)

*Prerequisite:* Completion of Semester I and Semester II and registration in Allied Health 132, 134.

Allied Health 130 is an integrated study of patients with more complex medical and surgical problems in total patient care which includes administration of medications. The nursing problem approach is introduced for care of patients in intensive care units.

Lecture 3 hours, 26 clinical hours.

### 132—LEGAL AND ETHICAL ASPECTS 1 UNIT OF NURSING (Formerly Vocational Nursing 132)

*Prerequisite:* Completion of both semesters and registration in Allied Health 130, 134.

Allied Health 132 is a study of legal implications involved with licensure to perform a nursing service for

the public and ethical considerations of professional conduct.

Lecture 2 hours.

### 134—MENTAL HEALTH AND 2 UNITS EMOTIONAL ILLNESS (Formerly Vocational Nursing 134)

*Prerequisite:* Completion of Semester I and Semester II and registration in Allied Health 130, 132.

Allied Health 134 is a study leading to the understanding of adaptive and maladaptive behavior in intrapersonal and interpersonal relationships, and the knowledge necessary for caring for emotional disturbances in patients of all ages.

Lecture 2 hours.

### 201—DIALYSIS ASSISTANT 16 UNITS

*Prerequisite:* High school graduate with one year's experience in medical field as an aide, technician, or corpsman, or consent of the instructor or equivalent.

Acquisition of cognitive and motor skills necessary to function as an assistant in hemodialysis in the hospital, limited care, and self-care dialysis units. Personnel could be utilized in home dialysis training and as a liaison between home dialysis patient and renal centers to which they are affiliated.

Lecture 9 hours, 21 clinical hours.

### 210—CARDIAC MONITORING 3 UNITS

*Prerequisite:* Allied Health 130, Medical and Surgical Nursing III, or equivalent.

Note: During the course, there will be 9 hours of clinical experience arranged.

The course presents appropriate aspects of anatomy, physiology, disease processes, and treatment. The main emphasis is on the normal and abnormal rhythms of the heart as well as their effect on the patient and the nurse's role in evaluation and treatment.

Lecture 3 hours.

### 215—FLUID AND ELECTROLYTE 1½ UNITS BALANCE

*Prerequisite:* Allied Health 130, Medical and Surgical Nursing III, or equivalent.

Allied Health 215 is a course to review the homeostasis of fluid in the body, to gain understanding of the body defenses which help maintain a total fluid volume, and to correlate a comparison of body fluids to body compartments.

Lecture 3 hours (10 weeks).

**220—INFECTION CONTROL IN THE HOSPITAL 1½ UNITS**

*Prerequisite:* Allied Health 130, Medical and Surgical Nursing III, or equivalent.

Allied Health 220 is a review of basic microbiology and a current up-date of procedural precautions to minimize the incidence of nosocomial infections.

Lecture 3 hours (10 weeks).

**225—NEW DIRECTIONS IN COMMUNITY CARE—TV ONLY 2 UNITS**

*Prerequisite:* None.

A two-part instructional television course. Part I (16 one-half hours) addresses health care administration in the State's community care facilities serving residents having mental and/or developmental disabilities. Emphasis is on planning and problem solving in areas of initial and on-going assessment of residents' hygiene, nutrition, medication, emergencies, activity programs, and the human rights of administrators and residents. Part II (10 one-half hours) addresses health care administration with specific content in the problems and concerns in caring for the developmentally disabled in a community care facility. Topics include developing the potential of a disabled resident, teaching of self-help skills, safety and mobility, interpersonal and social relationships in the community, recreation, sex education, transition to independent living, and supporting roles of major government and community agencies.

**250—CHILDREN'S ATTENDANT 3 UNITS**

*Prerequisite:* None.

This course is designed to provide the training necessary for those performing as a children's attendant in a Development Center for the Handicapped. Areas of Training include how to feed and handle severely handicapped children; first aid and emergency procedures; behavior modification and group supervision; house-keeping responsibilities.

Lecture 2 hours, 3 hours laboratory in Development Center for the Handicapped (DCH).

**ANATOMY**

See **Biology 120**.

# Anthropology

**101—PHYSICAL ANTHROPOLOGY 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school, or 12 units of college courses with a "C" average.

Studies human genetics; relation of man to animal world; human evolution; fossil men; racial differentiation; classification and distribution.

Lecture 3 hours.

**102—GENERAL ANTHROPOLOGY CULTURAL 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school, or 12 units of college courses with a "C" average.

Studies the origin and development of cultures including material traits, social organization, political, religious, communication, family and kinship systems, emphasizing contemporary primitives.

Lecture 3 hours.

**103—ARCHAEOLOGY 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school, or 12 units of college courses with a "C" average.

A general course in archaeology for beginning students. A sampling of the material covered would include: archaeology as a profession; methods of locating archaeological sites; digging sites correctly; preservation and restoration of artifacts; a history of classical digs as Pompeii, Masada, "Atlantis," etc.; methods of determin-



ing time, as Carbon-14, potassium-argon, dendrochronology, etc.; the Pleistocene Period; discovering fossil man; work of DuBois, Dart, the Leakeys; primitive man in the Paleolithic, Mesolithic and Neolithic cultures; beginning of agriculture; domestication of animals; rise of the city. American archaeology: the Mound Builders; Folsom and Clovis Man; Aztec, Inca, and Maya civilizations. Underwater Archaeology.

Lecture 3 hours.

## Architecture

### 101—DRAFTING 3 UNITS

*Prerequisite:* None.

*Note:* Required for architecture majors who have not had at least one year of architectural drafting in high school. Recommended for art majors.

The fundamentals of drafting prerequisite to work in art and architecture; architectural symbols and conventions; plan and working drawings and building code requirements for a small home; scale detailing, framing and study of dimensioning, model building.

Lecture 3 hours, laboratory 3 hours.

### 102—ARCHITECTURAL DRAFTING 3 UNITS

*Prerequisite:* Architecture 101.

*Note:* A student may not receive credit for both Architecture 102 and Architecture 109.

A discussion of the residence and its design with emphasis on the one-story dwelling. Discussion of modern trends. Scale detailing, framing and blueprint reading. The application of building codes to such construction. Course includes the study of dimensions and spacing of members; modular framing and modern practices; also a study of heating, insulation, acoustics and sound-proofing, plumbing, wiring, orientation, etc.

Lecture 3 hours, laboratory 3 hours.

### 103—DESCRIPTIVE GEOMETRY 3 UNITS

*Prerequisite:* One year of architectural or mechanical drawing in high school, or Architecture 101, or Engineering 101 taken in college.

*Note:* Required for architecture majors.

An applied science treating of graphic representation of lines, planes, surfaces, and solids. Architectural applications are used for subject matter. Simple shades and shadows.

Lecture and laboratory 6 hours.

### 105—PERSPECTIVE GRAPHICS 4 UNITS

*Prerequisite:* Architecture 103 and Art 113, and Art 116 and Art 117 (Art 117 may be taken concurrently).

*Note:* Required for architecture majors.

A course in technical perspective. Drawing of various architectural subjects and their shadows, rendering in various media, sketching in of people and landscape background and foreground.

Lecture 3 hours, laboratory 3 hours.

### 109—ARCHITECTURAL DESIGN 4 UNITS

*Prerequisite:* Architecture 101 and Architecture 105. (May be taken concurrently.)

*Note:* A student may not receive credit for both Architecture 102 and Architecture 109.

A discussion of the commercial building and its design with emphasis on the two-story building. Discussion of modern trends. Scale detailing, framing and blueprint reading. The application of building codes to such construction. The course includes the study of dimensions and spacing of members; modular framing and modern practice; also, a study of heating, insulation, acoustics and sound-proofing, plumbing, wiring, orientation, etc.

Lecture 4 hours, laboratory 4 hours.

### 110—ARCHITECTURAL DESIGN 4 UNITS

*Prerequisite:* Art 113, and Architecture 109.

Study of commercial architecture, its planning and design with emphasis on the concrete block building. Discussion of modern trends. Drawing plans, elevations, details with emphasis on stairs. The application of current building codes. Modular framing and modern practice are discussed, including the cantilevered beam. Further study of heating, insulation, acoustics, plumbing, electrical wiring, and model building.

Lecture 4 hours, laboratory 4 hours.

**111—ADVANCED ARCHITECTURAL DESIGN 4 UNITS**

*Prerequisite:* Architecture 110.

Planning and detailing of masonry buildings with large span roof framing as applied to commercial buildings. Use of building codes and specifications with reference to fire resistant types of construction. Study of physical properties and strength of materials in practical application. Preparation of complete sets of working drawings, including various presentation media.

Lecture 4 hours, laboratory 4 hours.

**112—ADVANCED ARCHITECTURAL DESIGN 4 UNITS**

*Prerequisite:* Architecture 111.

Planning and detailing of concrete buildings of institutional types. Use of building codes and specifications with reference to fire resistant types of construction. Study of physical properties and strength of materials in practical application. Preparation of working drawings, detail drawings and various presentation media.

Lecture 4 hours, laboratory 4 hours.

**191—ARCHITECTURAL ENGINEERING DRAFTING (COMMERCIAL) 7 UNITS**

*Prerequisite:* Art 113. (May be taken concurrently.)

A discussion and preparation of working drawings for major structures. A study of practices common to the construction of commercial reinforced concrete buildings; the relationship of plumbing, heating, ventilating, electrical, and air conditioning systems in the various areas of the structure; drawing changes of typical views, integrating and detailing them in the completed set of drawings; understanding and satisfying the requirements of the architect; studying the realities of the successful draftsman; the application of the current building code; and the cost factors affecting revisions.

Lecture 6 hours, laboratory 6 hours.

**192—ARCHITECTURAL ENGINEERING DRAFTING (COMMERCIAL) 7 UNITS**

*Prerequisite:* Architecture 191.

A discussion and preparation of working drawings for

brick and concrete block structures. A study of practices common to the construction of commercial buildings; the relationship of plumbing, heating, ventilating, electrical, and air conditioning systems. Drawing changes of typical views; studying and satisfying the requirement of the architect.

Lecture 6 hours, laboratory 6 hours.

**193—ARCHITECTURAL ENGINEERING DESIGN (COMMERCIAL) 7 UNITS**

*Prerequisite:* Architecture 109, or Architecture 191, or Art 116.

Preparation and coordination of a complete set of commercial working drawings from given specifications, including various presentation media in architectural drafting.

Lecture 6 hours, laboratory 6 hours.

**194—ARCHITECTURAL ENGINEERING DESIGN (COMMERCIAL) 7 UNITS**

*Prerequisite:* Architecture 109 or 110 or 191.

*Note:* Architecture 105 is recommended.

Class project in the preparation of a complete set of working drawings from given specifications, including various presentation media stressing the group concept in architectural design.

Lecture 6 hours, laboratory 6 hours.

## Art

**101—HISTORY OF ART 3 UNITS**

*Prerequisite:* None.

A survey and appreciation of the architecture, painting and sculpture from their origins in prehistoric times to Early Medieval.

Lecture 3 hours.

**102—HISTORY OF ART 3 UNITS**

*Prerequisite:* None.

A survey and appreciation of the architecture, painting

and sculpture from the Early Medieval period through the 18th Century. An introduction to the philosophical, economic, and political ideas that influenced those trends.

Lecture 3 hours.

### 103—HISTORY OF ART 3 UNITS

*Prerequisite:* None.

A survey of the growth of 19th and 20th century trends in painting, sculpture, architecture and the minor arts in Europe and the United States from their origins to the present.

Lecture 3 hours.

### 106—ART OF THE AMERICAS 3 UNITS (BEFORE 1600)

*Prerequisite:* None.

Art of the Pre-Columbian (Inca, Maya, Aztec), Mexico, and South American cultures. American Indian art (especially Southwest Indian).

Lecture 3 hours.

### 107—ART OF THE AMERICAS 3 UNITS (1600 TO THE PRESENT)

*Prerequisite:* None.

The art of the United States, Canadian, Mexican, South American cultures and their European origins.

Lecture 3 hours.

### 108—ORIENTAL ART 3 UNITS

*Prerequisite:* None.

A survey of the sculpture, painting, and architecture of China, Japan, India, and Persia, from prehistory to the present. An introduction to the social, political, and philosophical ideas that influenced these trends.

Lecture 3 hours.

### 110—HISTORY OF MOTION PICTURES 3 UNITS

*Prerequisite:* None.

*Note:* Each week students will be required to see one

film chosen from the instructor's list of pertinent films available on television and in local theaters.

Historical introduction to the appreciation of motion pictures through the analysis of audio and visual techniques which can make the film an expressive means of communications.

Lecture 3 hours.

### 111—INTRODUCTION TO FILM 2 UNITS PRODUCTION

*Prerequisite:* None.

*Note:* Each week students will be required to see one film chosen from instructor's list of pertinent films available on television and in local theaters.

Art 111 will provide an introduction to the various occupational activities connected with film making: set design, costuming, editing, reproduction, cinematography and laboratory processing.

Lecture 2 hours, laboratory 2 hours.

### 113—DESIGN I 2 UNITS

*Prerequisite:* None.

Study of the structure of the two-dimensional work of art. Special emphasis in the area of design and color. Provides fundamental understanding and control of the elements of design and the principles by which they can be related in solving design problems. The course is "basic" for art students and helpful to students in related fields.

Lecture 2 hours, laboratory 2 hours.

### 114—DESIGN II 2 UNITS

*Prerequisite:* Art 113.

Art 114 is advanced study in two-dimensional art structure. The study is developed in a series of problems. Certain problems will concentrate on advanced color study; some on space manipulation, some on understanding through practice, the current concepts at work in the fine and decorative arts fields. Whenever possible problems will reflect directions dominating the current art scene.

Lecture 2 hours, laboratory 2 hours.

**115—THREE DIMENSIONAL DESIGN 2 UNITS**

*Prerequisite:* Art 113. (May be taken concurrently.)

*Note:* Required for art majors. Recommended for related fields.

A study of space and color relationship expressed three-dimensionally in line, mass, volume, and texture. Experiences are provided involving different materials in the solution of three dimensional design problems.

Lecture 2 hours, laboratory 2 hours.

**116—DRAWING I 2 UNITS**

*Prerequisite:* None.

A basic drawing course dealing with the fundamentals of pictorial organization. The various means of representing the three-dimensional aspects of forms on a flat surface are emphasized.

Lecture 4 hours.

**117—DRAWING II 2 UNITS**

*Prerequisite:* Art 116

A second semester drawing course designed to enable the student to further his abilities in drawing forms in depth, composition, and various drawing techniques.

Lecture 4 hours.

**118—LIFE DRAWING 2 UNITS**

*Prerequisite:* Art 116. (Art 116 may be taken concurrently.)

Beginning studies in drawing the figure from life. Quick sketches, and progressively longer poses to study such problems as proportions, design and the animation of the body. Studies in human anatomy, as applicable to life drawing. The drawings are rendered in media such as charcoal or conte crayon, and are executed both as line drawings and in chiaroscuro.

Lecture 2 hours, laboratory 2 hours.

**119—LIFE DRAWING 2 UNITS**

*Prerequisite:* Art 118.

Continuation of basic studies in drawing the figure from life. Attention is given to arrangement and composition.

Exploration of media for drawing the figure. Use of the figure in a personal and expressive manner. Problems in drawing the head.

Lecture 2 hours, laboratory 2 hours.

**120—ADVANCED LIFE DRAWING 2 UNITS**

*Prerequisite:* Art 119.

Continuation of basic studies in drawing the figure from life. Emphasis on using the figure in compositions. Stress on the creative use of the figure. Drawings should extend beyond "studies" and become personal statements. Increased emotional expression in drawings. May do one or more problems in three dimensions.

Lecture 2 hours, laboratory 2 hours.

**121—ADVANCED LIFE DRAWING 2 UNITS**

*Prerequisite:* Art 120.

Continuation of basic studies in drawing the figure from life. Figure compositions are stressed. Students are encouraged to use the figure in creative and expressive drawings. A major project will be required—this may follow an avenue of individual interest.

Lecture 2 hours, laboratory 2 hours.

**122—ADVERTISING DESIGN 2 UNITS**

*Prerequisite:* Art 113 and Art 116. (Art 113 and 116 may be taken concurrently.)

An applied design course, oriented primarily toward design in advertising. Special emphasis is placed upon those elements, techniques, and psychological aspects of design peculiar to advertising. Layout techniques, lettering typography, and the psychological use of color are stressed.

Lecture 2 hours, laboratory 2 hours.

**123—ADVERTISING DESIGN 2 UNITS**

*Prerequisite:* Art 122. Recommended: Art 114, 115, 117, 118, 134, 138.

An applied design course, oriented toward design in advertising. Special emphasis is placed upon those elements, techniques, and psychological aspects of design peculiar to advertising. Layout techniques, typography,

printing methods, advanced one page layout and illustration are stressed.

Lecture 1 hour, laboratory 3 hours.

#### 124—ADVANCED ADVERTISING DESIGN 2 UNITS

*Prerequisite:* Art 123.

An advanced advertising design course. Theory and practice in various phases of advertising. Design for television, packaging, brochure design and layout, magazine design, multiple page layout, etc. Problems in production for offset printing.

Lecture 1 hour, laboratory 3 hours.

#### 125—ADVANCED ADVERTISING DESIGN 2 UNITS

*Prerequisite:* Art 124.

Advanced practices in advertising design. Emphasis on independent work and problem solving. The art of advertising display and problems in preparing camera-ready art work with two, three, and four plate prints.

Lecture 1 hour, laboratory 3 hours.

#### 126—CERAMICS 2 UNITS

*Prerequisite:* None.

An introductory study in the field of ceramics. Experience in preparing clay bodies, slips, and glazes. Exploration in hand forming works of art in clay by a variety of methods.

Lecture 1 hour, laboratory 3 hours.

#### 127—CERAMICS 2 UNITS

*Prerequisite:* Art 126.

A continued study of the fundamentals. Advanced studies of throwing on the potter's wheel. Further study in formulating glazes. Some problems chosen individually to challenge and interest each student. This semester may include a project in mold making and casting.

Lecture 1 hour, laboratory 3 hours.

#### 128—ADVANCED CERAMICS 2 UNITS

*Prerequisite:* Art 127.

Continued study of the fundamentals. Specific goals

and standards for throwing on the potter's wheel. Ceramic sculpture is offered. Development of a personal glaze, and experimentation on variations of it. Selected projects "of challenging nature" of personal choice.

Lecture 1 hour, laboratory 3 hours.

#### 129—ADVANCED CERAMICS 2 UNITS

*Prerequisite:* Art 128.

Advanced work on the potter's wheel. Intensive research and experiment in methods of decoration. Further experiment in glazes. One large complex problem will be set up, and carried through to completion. Development of critical evaluation and judgment.

Lecture 1 hour, laboratory 3 hours.

#### 130—INTERIOR DESIGN 3 UNITS

*Prerequisite:* None.

A study of the floor plan and architectural background and the selection and arrangement of furniture. Emphasis is placed on the selection of floor coverings, draperies, curtains, upholstery, accessories, and color in the home.

Lecture 3 hours.

#### 132—LETTERING 1 UNIT

*Prerequisite:* None.

*Note:* Recommended for architecture majors and all art majors as a foundation for more advanced work in the art department.

Offered fall semester only.

Fundamental study of letter forms. Short history of lettering and typography; problems in the forming and spacing of letters, including the single stroke alphabet.

Lecture 1 hour, laboratory 2 hours.

#### 134—PAINTING 2 UNITS

*Prerequisite:* Art 116. (Art 116 may be taken concurrently.)

Development of skill, technique, and composition in drawing and painting, using media such as oils or acrylics. Problems include representation and abstraction.

Lecture 2 hours, laboratory 2 hours.

**135—PAINTING****2 UNITS***Prerequisite:* Art 134.

Application of principles, theories and techniques of drawing and painting to problems of still life, figure, landscape, and non-objective painting.

Lecture 2 hours, laboratory 2 hours.

**136—ADVANCED PAINTING****2 UNITS***Prerequisite:* Art 135.*Note:* Art 117 is recommended.

The application of principles of art in drawing and painting for the more advanced student.

Contemporary concepts in painting are explored. Individual assignments with emphasis on personal interpretation and expression.

Lecture 2 hours, laboratory 2 hours.

**137—ADVANCED PAINTING****2 UNITS***Prerequisite:* Art 136.

A continuation of Art 136.

Painting for the advanced student. Special problems are assigned to the student on an individual basis. Painting problems may include figure painting and the figure in relation to architectural forms.

The student is encouraged to work from imagination as well as from direct visual experience.

Field trips to museums and galleries are included in the course of instruction.

Lecture 4 hours.

**138—WATER COLOR****2 UNITS***Prerequisite:* Art 113 and Art 116. (One of the two prerequisites may be taken concurrently.)

A study of the water color medium and techniques. The problems of painting are directed with a regard for the special qualities of water color. Class problems include various approaches to landscape painting, still life painting, and figure painting. Other problems emphasizing abstraction and non-objective painting are explored.

Outdoor painting trips are used to help gain experience and skill in landscape painting.

Lecture 2 hours, laboratory 2 hours.

**139—WATER COLOR****2 UNITS***Prerequisite:* Art 138.

A continuation of the study of water color painting for the more advanced student. The application of general principles and theories of painting in reference to the special qualities of the water color medium. Class problems include experimentation of a variety of techniques and stylistic approaches.

Individual interpretation and expression are encouraged.

Lecture 2 hours, laboratory 2 hours.

**140—SCULPTURE****2 UNITS***Prerequisite:* Art 113 or Art 116 (may be taken concurrently).*Note:* This course may be taken for two units each semester for a total of four semesters.

Recommended for art, pre-dental, and industrial design students. A series of sculptural problems in relief and in the round. Includes exploratory investigations of various media and techniques such as plaster, clay modeling, stone and wood carving, casting, constructions, etc.

Emphasis is on problems of historical and contemporary interest and importance.

Offered fall semester only.

Lecture 1 hour, laboratory 3 hours.

**142—PRINTMAKING****2 UNITS***Prerequisite:* Art 113 or Art 116.*Note:* This course may be taken for two units each semester for a total of four units.

An introduction to various printing processes including linoleum cuts, woodcuts, engraving, drypoint, etching, and aquatint. Creative personal approaches to printmaking are encouraged. Technical and expressive qualities of the various media are explored.

Lecture 2 hours, laboratory 2 hours.

**143—INTAGLIO (ETCHING)****2 UNITS***Prerequisite:* Art 142

*Note:* This course may be taken for two units each semester for a total of four units.

Art 143 is a more advanced course than Art 142; this course explores various approaches and techniques of intaglio printing with special emphasis on color printing.

Lecture 2 hours, laboratory 2 hours.

**144—SILK SCREEN PRINTING****2 UNITS***Prerequisite:* Art 113.

*Note:* This course may be taken for two units each semester for a total of four units.

An introduction to silk screen printing. Course will include: Preparation of equipment; various methods of stencil preparation; printing on paper and cloth; printing with a variety of paints and dyes. Projects will include serigraphs and repeat pattern textiles.

Lecture 1 hour, laboratory 3 hours.

**145—SILK SCREEN PRINTING****2 UNITS***Prerequisite:* Art 144.

*Note:* This course may be taken for two units each semester for a total of four units.

An advanced study of silk screen printing. Preparation of specialized equipment. Research and experimentation to encourage creative use of the medium. Problems are selected to be "challenging," and as related to personal interests of each student.

Lecture 1 hour, laboratory 3 hours.

**147—JEWELRY MAKING****2 UNITS***Prerequisite:* None.

The study and application of basic principles of jewelry making. Use of precious and semi-precious metals, cutting and polishing of precious and semi-precious stones; basic principles of handwrought jewelry making; the use of the Lost Wax Casting technique; future arts and crafts instructors; training of jewelers for the profession; jewelry manufacturing and sales. Emphasis is placed on

learning to design original pieces.

Lecture 1 hour, laboratory 3 hours.

**148—JEWELRY MAKING****2 UNITS***Prerequisite:* Art 147.

Advanced studies and applications of jewelry making: The study and uses of precious and semi-precious stones used in the art of facet cutting; advanced problems in the Lost Wax Casting technique; continued training of jewelers for the profession; continued emphasis on designing original pieces.

Lecture 1 hour, laboratory 3 hours.

**149—ADVANCED JEWELRY MAKING****2 UNITS***Prerequisite:* Art 148.

*Note:* Course offered in Extended Day only.

Advanced study of and uses of precious metals and gems. Continue emphasizing facet cutting; precision investment casting, and advanced designing techniques. Continue training to be used in jewelry manufacturing and designing.

Lecture 1 hour, laboratory 3 hours.

**150—ADVANCED JEWELRY MAKING****2 UNITS***Prerequisite:* Art 149.

*Note:* Course offered in Extended Day only.

Advanced studies and designing in facet cutting; casting; handwrought and wax pattern duplication. Continue training to be used in jewelry manufacturing and designing.

Lecture 1 hour, laboratory 3 hours.

**151—DENTAL MATERIALS****2 UNITS***Prerequisite:* Enrollment in the pre-dental program.

Basic studies of the various materials used in the field of dentistry. The development of laboratory techniques through the uses of wax, chalk, and plastics carvings; the casting of projects; the proper use of dental instruments and equipment. This course is designed to prepare the student for the American Dental Association (ADA) Examination.

Lecture 1 hour, laboratory 3 hours.

**152—ADVANCED DENTAL MATERIALS 2 UNITS**

*Prerequisite:* Art 151.

Advanced studies and techniques of dental materials and processes. Emphasis is placed on plaster and clay carvings; advanced techniques in the casting of wax models; the transfer of wax to plastic models. This course is designed to prepare the student for the American Dental Association (ADA) Examination as well as the University of California at San Francisco Examination.

Lecture 1 hour, laboratory 3 hours.

**160—LOW FIRE CERAMICS 1 UNIT**

*Prerequisite:* None.

*Note:* Recommended Art 113.

Art 160 is an introduction to the materials, methods of using the materials, and the experience in creating a design and project.

Lecture 2 hours, laboratory 2 hours (8 weeks).

**161—BATIK AND TIE DYE 1 UNIT**

*Prerequisite:* None.

*Note:* Recommended Art 113

Art 161 is an introduction to the materials, methods of using the materials, and the experience in creating a design and project.

Lecture 2 hours laboratory 2 hours (8 weeks).

**162—RAKU 1 UNIT**

*Prerequisite:* None.

*Note:* Recommended Art 113.

Art 162 is an introduction to the materials, methods of using the materials, and the experience in creating a design and project.

Lecture 2 hours, laboratory 2 hours (8 weeks).

**170—STAINED GLASS 1 UNIT**

*Prerequisite:* None.

*Note:* Art 113 is recommended.

Art 170 is an introduction to the materials, methods of using the materials, and the experience in creating a design and project.

Lecture 2 hours, laboratory 2 hours (8 weeks).

**172—SILK SCREEN TEXTILE PRINTING 1 UNIT**

*Prerequisite:* None.

*Note:* Art 113 is recommended.

Art 172 is an introduction to the materials, methods of using the materials, and the experience in creating a design and project.

Lecture 2 hours, laboratory 2 hours (8 weeks).

**180—HISTORY OF ARCHITECTURE 3 UNITS**

*Prerequisite:* None.

Art 180 is a survey course of architectural styles from their origins in prehistoric times to the present.

Lecture 3 hours.

**FASHION SKETCHING**

See Home Arts 123.

#2 - ART 201 - SEE PAGE 296

---

## Astronomy

**101—ELEMENTS OF ASTRONOMY 3 UNITS**

*Prerequisite:* None.

A survey of current knowledge regarding the universe, presented in non-technical language.

Lecture 3 hours.

**102—OBSERVATIONAL ASTRONOMY 2 UNITS**

*Prerequisite:* Astronomy 101.

Mapping the sky by means of bright stars and constellations will be accomplished. Small telescopes will be used for observing celestial objects.

Lecture 1 hour, laboratory 3 hours.



# Automatic Sprinkler and Fire Control

## 101—THE INDUSTRY AND SPRINKLERS 3 UNITS

*Prerequisite:* Employment as a fire sprinkler fitter apprentice.

Overview of the trade and the industry, classes of sprinkler systems, fundamental elements of system design, and sprinkler head characteristics. The first course of a ten-course series for those apprenticed in the trade.

Lecture 3 hours.

## 102—~~FIRE CONTROL MATHEMATICS~~ <sup>TRADE MATHEMATICS & HAZAROS</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 101.

Review of trade mathematics with special attention to applications necessary to accomplish the jobs involved in this field.

Lecture 3 hours.

## 103—~~PIPE INSTALLATION AND MAINTENANCE~~ <sup>UNDERGROUND YARD MAINS</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 102

Covers various aspects of underground piping, including joints, installation methods, protection from freezing, hydrants, valves, tests, connections, types of pipe, flushing techniques, and dealing with pipe corrosion.

Lecture 3 hours.

## 104—~~FIRE CONTROL HYDRAULICS~~ <sup>ELEMENTS OF BASIC PHYSICS</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 103

Covers elements of the practical aspects of hydraulics needed by those employed as automatic sprinkler fitters.

Lecture 3 hours.

## 105—BLUEPRINT READING AND SKETCHING 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 104

Covers freehand sketching and blueprint reading as they apply to automatic sprinkler fitter operations.

Lecture 3 hours.

## 106—~~WATER CONTROL AND INDUSTRY ECONOMICS~~ <sup>WATER SUPPLIES</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 105

Covers water supply as to conducting, friction, and flow problems, pressure measurement and control, storage, and pumps as well as practical economics in regard to fire control workers. Also covers elements of cost and job planning.

Lecture 3 hours.

## 107—~~FIRE CONTROL VALVES~~ <sup>ALARM VALVES</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 106

Covers nature and operation of various of valves and alarms.

Lecture 3 hours.

## 108—~~DRY SYSTEMS, TANKS, AND PUMPS~~ <sup>Special Systems & Supervisory Circuitry</sup> 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 107

Covers dry systems, tanks and pumps.

Lecture 3 hours.

## 109—~~SAFETY AND SPECIALIZED SYSTEMS~~ 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 108

Covers the economics of safety, rigging and scaffolding, and various specialized systems.

Lecture 3 hours.

## 110—~~THERMOSTATIC CONTROL AND REPORTS~~ 3 UNITS

*Prerequisite:* Automatic Sprinkler and Fire Control 109

Covers thermostatically controlled systems and reports of special use to the fire sprinkler fitter.

Lecture 3 hours.



*Pat*

# Aviation and Transportation

(Formerly Aerospace Technologies)

## 101—AUTOMOTIVE MAINTENANCE FOR CONSUMERS 1 UNIT

(Formerly Auto Mechanics 101)

*Prerequisite:* None.

*Note:* This course may be repeated for a maximum of two units.

Aviation and Transportation 101 is designed to meet the general needs of the automobile owner. Emphasis will be placed on general mechanical concepts and related physical principles such as maintenance procedures, purchasing of parts and service, safety, and consumer data.

Lecture and laboratory 3 hours. (8 weeks)

## 102—AUTOMOTIVE TUNE-UP 1 UNIT

(Formerly Auto Mechancis 102)

*Prerequisite:* Aviation and Transportation 101 or equivalent.

*Note:* This course may be repeated for a maximum of two units.

Aviation and Transportation 102 is designed to cover theories of design and operation of ignition and fuel system components; techniques of engine troubleshooting and tune-up procedures using both simple and specialized equipment. Vehicle emission control devices will be included in this class.

Lecture and laboratory 3 hours. (8 weeks)

## 103—AUTOMOTIVE ELECTRICAL SYSTEMS 1 UNIT

(Formerly Auto Mechanics 103)

*Prerequisite:* Aviation and Transportation 101 or equivalent.

*Note:* This course may be repeated for a maximum of two units.

Aviation and Transportation 103 is designed to intro-

duce the trainee to the automotive electrical systems. Each of the four principle circuits will be studied with reference to the general purpose of the circuit, the identification of component parts that make up the circuit, and relationship of one circuit to another as they function together in the automobile.

Lecture and laboratory 3 hours. (8 weeks)

## 104—AUTOMOTIVE CHASSIS AND SUSPENSION SYSTEMS 1 UNIT

(Formerly Auto Mechanics 104)

*Prerequisite:* Aviation and Transportation 101 or equivalent.

*Note:* This course may be repeated for a maximum of two units.

Aviation and Transportation 104 is designed to acquaint the trainee with the various automotive suspension systems. Emphasis will be placed on the types of systems the trainee will encounter most frequently and the names and functions of the components of each system.

Lecture and laboratory 3 hours. (8 weeks)

## 110—PRIVATE PILOT FLIGHT COURSE 1.5 UNITS

(Formerly Aerospace Technologies 110)

*Prerequisite:* Aviation and Transportation 120 must be taken prior to or concurrently with this course or Private Pilot's Written Examination passed.

*Note:* Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight training which meets the FAA flight experience requirements for the Private Pilot's Certificate. The flights are scheduled by the student at the airport and in addition the student must meet the College flight supervisor as scheduled. Flight experience is at student's own expense, and he must fly at least 18 hours during the semester to fulfill the course requirements.

Lecture 1 hour.

**111—PRIVATE PILOT FLIGHT COURSE** **1X UNITS**  
**(Formerly Aerospace Technologies 111)**

*Prerequisite:* Aviation and Transportation 120, or Private Pilot's Written Examination passed and 18 hours of flying time.

*Note:* Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight training which meets the FAA flight experience requirements for the Private Pilot's Certificate. The flights are scheduled by the student at the airport and in addition the student must meet the College flight supervisor as scheduled. Flight experience is at student's own expense and he must fly at least 18 hours during the semester to fulfill the course requirements. For satisfactory course completion the student must have flown at least 36 total flight hours on completion of Aviation and Transportation 110 and 111.

Lecture 1 hour.

**112—COMMERCIAL PILOT** **3 UNITS**  
**FLIGHT COURSE**  
**(Formerly Aerospace Technologies 112)**

*Prerequisite:* Aviation and Transportation 110 and 111 or Private Pilot's License.

*Note:* Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight instruction which meets the FAA requirements for the Commercial Pilot's Certificate. The flights are scheduled by the student at the airport and in addition the student must meet with the College flight supervisor as scheduled. For satisfactory course completion the student should have 100 hours of flight time by the end of the semester.

Lecture 2 hours, laboratory 1 hour.

**113—COMMERCIAL PILOT** **3 UNITS**  
**FLIGHT COURSE**  
**(Formerly Aerospace Technologies 113)**

*Prerequisite:* One hundred hours of flying time or completion of Aviation and Transportation 112. Aviation and Transportation 121, 122, 123, 124, 126 taken prior to or concurrently or Commercial Written Examination passed.

*Note:* Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight instruction which meets the FAA requirements for the Commercial Pilot's Certificate. The flights are scheduled by the student at the airport and in addition the student must meet with the College flight supervisor as scheduled. Course completion requires 160 hours total flight time which will satisfy FAA requirements for the Commercial Pilot's Certificate.

Lecture 2 hours, laboratory 1 hour.

**115—FLIGHT INSTRUCTOR** **3 UNITS**  
**FLIGHT COURSE**  
**(Formerly Aerospace Technologies 115)**

*Prerequisite:* Private Certificate with 180 hours or a Commercial Pilot's Certificate.

*Note:* Flight training is contracted for by the student with an FAA approved flight school and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight instruction which meets the FAA requirements for a Flight Instructor rating. The flights are scheduled by the individual at the airport and in addition he must meet the College flight supervisor at the scheduled period.

Lecture 3 hours.

**116—INSTRUMENT FLIGHT COURSE 3 UNITS**  
(Formerly Aerospace Technologies 116)

*Prerequisite:* Commercial Pilot's License or Aviation and Transportation 113.

*Note:* Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Community College District. The College instructor helps the student to achieve an understanding of the relationship of flight theory to flight practice so that the student can achieve the knowledge required to meet FAA certification standards.

A course of flight instruction which meets the FAA requirements for the instrumental Pilot Rating. The flights are scheduled by the individual at the airport and in addition he must meet the College flight supervisor at the scheduled period. Flight experience is at student's own expense. Upon completion of this course the student is prepared for the FAA instrument rating. Flight time: 30 hours of instrument flight training.

Lecture 3 hours.

**120—BASIC AERONAUTICS 5 UNITS**  
(Formerly Aerospace Technologies 120)

*Prerequisite:* None.

*Note:* Students who have had Aerospace Technologies 9 will receive 3 units of credit only.

A study to prepare the student for the Private Pilot Written Examination, and is taught under FAA approved Basic and Advanced Group School Certificate No. WE-13-25. It covers basic Meteorology, Navigation, Principles of Engine Operation, Aerodynamics of Flight, Federal Air Regulations for the Private Pilot, and enroute procedures common to the private pilot.

Lecture 5 hours.

**121—NAVIGATION 3 UNITS**  
(Formerly Aerospace Technologies 121)

*Prerequisite:* Aviation and Transportation 120 or a Private Pilot's License.

A study of dead reckoning and pilotage aerial navigation, computer problems and vector analysis. Approved FAA Advanced Ground School for Commercial Pilots No. WE-13-25. Course is not limited to pilots.

Lecture 3 hours.

**122—METEOROLOGY 3 UNITS**  
(Formerly Aerospace Technologies 122)

*Prerequisite:* None.

*Note:* Aviation and Transportation students must have taken Aviation and Transportation 120 or have a Private Pilot's License before enrolling in Aviation and Transportation 122.

Elementary study of the basic principles of meteorology with emphasis placed on physical laws that operate in the atmosphere, particularly as they affect aircraft flight. Weather maps and reports and forecasts and their interpretation are stressed.\* Approved FAA Advanced Ground School for Commercial Pilots No. WE-13-25.

\*Upon completion of this course the student will understand problems in meteorology as they affect the pilot.

Lecture 3 hours.

**123—AIRCRAFT STRUCTURE AND AERODYNAMICS 3 UNITS**  
(Formerly Aerospace Technologies 123)

*Prerequisite:* Aviation and Transportation 120 or a Private Pilot's License.

A course in aircraft structures and aerodynamics as they apply to the pilot. Course meets FAA requirements for Commercial Pilots in the study of aircraft. Approved FAA Advanced Ground School No. WE-13-25.

Lecture 3 hours.

**124—RADIO PROCEDURES AND FLIGHT REGULATIONS 3 UNITS**  
(Formerly Aerospace Technologies 124)

*Prerequisite:* Aviation and Transportation 120 or a Private Pilot's License.

A course covering radio navigation, use of radio charts, voice procedures, and federal air regulations. It prepares the student for the FAA Commercial Pilot Written Examination on Federal Air Regulations and Radio. Approved FAA Advanced Ground School No. WE-13-25.

Lecture 3 hours.

**125—INSTRUMENT PROCEDURES AND RADIO NAVIGATION** 3 UNITS  
(Formerly Aerospace Technologies 125)

*Prerequisite:* Aviation and Transportation 120, 122, or Private Pilot's License meets all prerequisites.

*Note:* It is recommended that Aviation and Transportation 131 be taken concurrently.

A detailed study of the use of radio navigation, weather briefing, advanced radio navigation and standard instrument approaches and procedures and Federal Air Regulations pertaining to instrument flight. Students are prepared for the FAA Instrument Examination.

Lecture 3 hours.

**126—AIRCRAFT POWER PLANTS** 3 UNITS  
(Formerly Aerospace Technologies 126)

*Prerequisite:* Aviation and Transportation 120 or a Private Pilot's License.

A course in aircraft power plants. The study includes structures, operation, maintenance, and servicing as they apply to the pilot. Course meets FAA requirements for commercial pilots in the study of engines. Approved FAA Advanced Ground School No. WE-13-25.

Lecture 3 hours.

**127—FLIGHT TRAINING MANEUVERS** 3 UNITS  
(Formerly Aerospace Technologies 127)

*Prerequisite:* Aviation and Transportation 120 or Private Pilot's License meets all prerequisites.

A detailed study of the maneuvers required for the safe, skillful operation of an airplane. The performance and application of the various maneuvers required by the Federal Aviation Administration for the Private and Commercial Pilot Flight tests will be examined in detail.

Lecture 3 hours.

**128—AIRPORT OPERATIONS** 3 UNITS  
(Formerly Aerospace Technologies 128)

*Prerequisite:* None.

*Note:* Aviation and Transportation 120 and 130 are recommended.

Aviation and Transportation 128 is designed to acquaint

the student with the practical airport problems as they exist today. The student is expected to be able to manage an airport or any diversified airport operation upon completion of this course.

The course intends to cover airport development, locations, local advertising, financial requirements, air safety in the confines of the airport as well as traffic pattern management, airport lighting, deterioration and depreciation of airport property, fire and crash protection, familiarization with the Federal Aviation Administration and the National Transportation Safety Board, meteorological situations that affect airport operations, and control of air traffic.

Lecture 3 hours.

**129—FLIGHT ATTENDANT** 3 UNITS  
(Formerly Aerospace Technologies 129)

*Prerequisite:* None.

*Note:* It is recommended that this course be taken prior to or concurrently with Aviation and Transportation 120.

Aviation and Transportation 129 will prepare the student for employment as a flight attendant and will present the advantages and disadvantages of the job.

There is also a survey of the problems encountered by the new attendant both on the job and in training.

Lecture 3 hours.

**130—AIR TRANSPORTATION** 3 UNITS  
(Formerly Aerospace Technologies 130)

*Prerequisite:* None.

Development of air transportation, problems in commercial air transportation, commercial airplanes, organization and functions of airlines, regulations, airline routes in the United States and the world, pilot qualification, schedules and services, revenue sources and potential operating overhead. Importance of airports and airways, of advertising, and of public relations stressed.

Lecture 3 hours.

**131—AIR TRAFFIC CONTROLLER 5 UNITS**  
**(Formerly Aerospace Technologies 131)**

*Prerequisite:* Aviation and Transportation 122.

*Note:* It is recommended that Aviation and Transportation 125 be taken concurrently.

Aviation and Transportation 131 prepares students for the FAA Control Tower Operator Written Examination and assists them in meeting the requirements necessary to apply for the position of Air Traffic Control Specialist, and is of value to those students preparing for the position of Dispatcher, Meteorologist, Commercial Pilot, and positions concerned with aircraft operations. Student pilots and private pilots will find this course informative; students preparing for their Instrument Rating will receive much valuable information which will assist them in preparing for the written examination and the flight check, Aircraft Recognition and Performance, and Radio Telephone Procedures.

Lecture 4 hours, laboratory 2 hours.

**137—JET ENGINE OVERHAUL AND 8 UNITS**  
**MAINTENANCE**  
**(Formerly Aerospace Technologies 137)**

*Prerequisite:* Aviation and Transportation 143, or the Federal Aviation Administration Engine ("P") Mechanic's Certificate.

Practical and theoretical instruction on jet engines and their accessories. Intensive instruction will be given in the following fields: engine theory, fuel, lubrication and electrical systems, and flight line maintenance. Fundamentals of rocket propulsion systems, including solid and liquid fuels, air dependent and non-air dependent engines.

Lecture 5 hours, laboratory 10 hours.

**141—AIRCRAFT POWERPLANT 8 UNITS**  
**MAINTENANCE AND OVERHAUL**  
**(Formerly Aerospace Technologies 141)**

*Prerequisite:* None.

*Note:* This class meets six hours per day, five days per week.

The completion of Aviation and Transportation 141, 142, and 143 qualifies the student for industry employment as a maintenance and overhaul technician and prepares

him practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating.

The course content of Aviation and Transportation 141 consists of practical application and theoretical study of powerplant overhaul procedures; precision inspections; lubrication systems; Federal Aviation Administration regulations. The course content is based on standards required for FAA certificated schools. Approved FAA Maintenance Technician School No. 3415.

Lecture 10 hours, laboratory 20 hours.

**142—AIRCRAFT POWERPLANT 8 UNITS**  
**MAINTENANCE AND OVERHAUL**  
**(Formerly Aerospace Technologies 142)**

*Prerequisite:* None.

*Note:* This class meets six hours per day, five days per week.

The completion of Aviation and Transportation 141, 142, and 143 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating.

The course content of Aviation and Transportation 142 consists of practical application and theoretical study of electrical systems, magnetos, generators, and starting systems. The course content is based on standards required for FAA certificated schools. Approved FAA Maintenance Technician School No. 3415.

Lecture 10 hours, laboratory 20 hours.

**143—AIRCRAFT POWERPLANT 16 UNITS**  
**MAINTENANCE AND OVERHAUL**  
**(Formerly Aerospace Technologies 143)**

*Prerequisite:* Aviation and Transportation 141 and 142.

The completion of Aviation and Transportation 141, 142, 143 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating.

The course content consists of practical application and theoretical study of carburetion; including float, pressure, injection systems, propellers, gas turbines, physical science and troubleshooting. The course content is based on standards required for FAA certificated

schools. Approved FAA Maintenance Technician School No. 3415.

Lecture 15 hours, laboratory 15 hours.

**144—AIRFRAME MAINTENANCE AND OVERHAUL 7 UNITS**

*Prerequisite:* Aviation and Transportation 143.

The completion of Aviation and Transportation 141, 142, 143, 144 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating.

The course content consists of practical application and theoretical study of aircraft drawings, fabrication and installation of fluid lines, materials and processing, cleaning of aircraft and corrosion control.

Lecture 25 hours, laboratory 5 hours (8 weeks - 240 hours)

**145—AIRFRAME MAINTENANCE AND OVERHAUL 9 UNITS**  
(Formerly Aerospace Technologies 145)

*Prerequisite:* Aviation and Transportation 144 or powerplant rating.

Aviation and Transportation 145 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Administration Airframe Rating, upon completion of Aviation and Transportation 146. The course content consists of practical applications and theoretical study of structural repairs to aircraft, including woodwork; riveting; layout practices and radio installation and flight line maintenance. The course content is based on standards required for FAA certificated schools. Approved FAA Maintenance Technician School No. 3415.

Lecture 10 hours, laboratory 20 hours (10 weeks - 300 hours)

**146—AIRFRAME MAINTENANCE AND OVERHAUL 16 UNITS**  
(Formerly Aerospace Technologies 146)

*Prerequisite:* Aviation and Transportation 145.

Aviation and Transportation 146 qualifies the student for industry employment as a maintenance and over-

haul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Administration Airframe Rating. The course content consists of practical applications and theoretical study of structural repairs to aircraft, including dope and fabric, fuel systems, control systems, rigging, FAA forms, inspections and flight line maintenance. The course content is based on standards required for FAA certificated schools. Approved FAA Maintenance Technician School No. 3415.

Lectures 10 hours, laboratory 20 hours.

**148—THEORETICAL AIRCRAFT POWERPLANT MAINTENANCE 6 UNITS**  
(Formerly Aerospace Technologies 148)

*Prerequisite:* Six months full-time employment in the aviation industry engaged in repair, maintenance, or overhaul of aircraft reciprocating powerplants.

*Note:* Aviation and Transportation 148 may not be taken for credit if student has completed Aviation and Transportation 141 and 142.

The course presents the theory of operation, maintenance and overhaul of aircraft reciprocating and gas turbine engines, electrical and lubrication subsystems and applicable Federal Aviation Administration regulations; inspections, forms and engine servicing.

Lecture 6 hours.

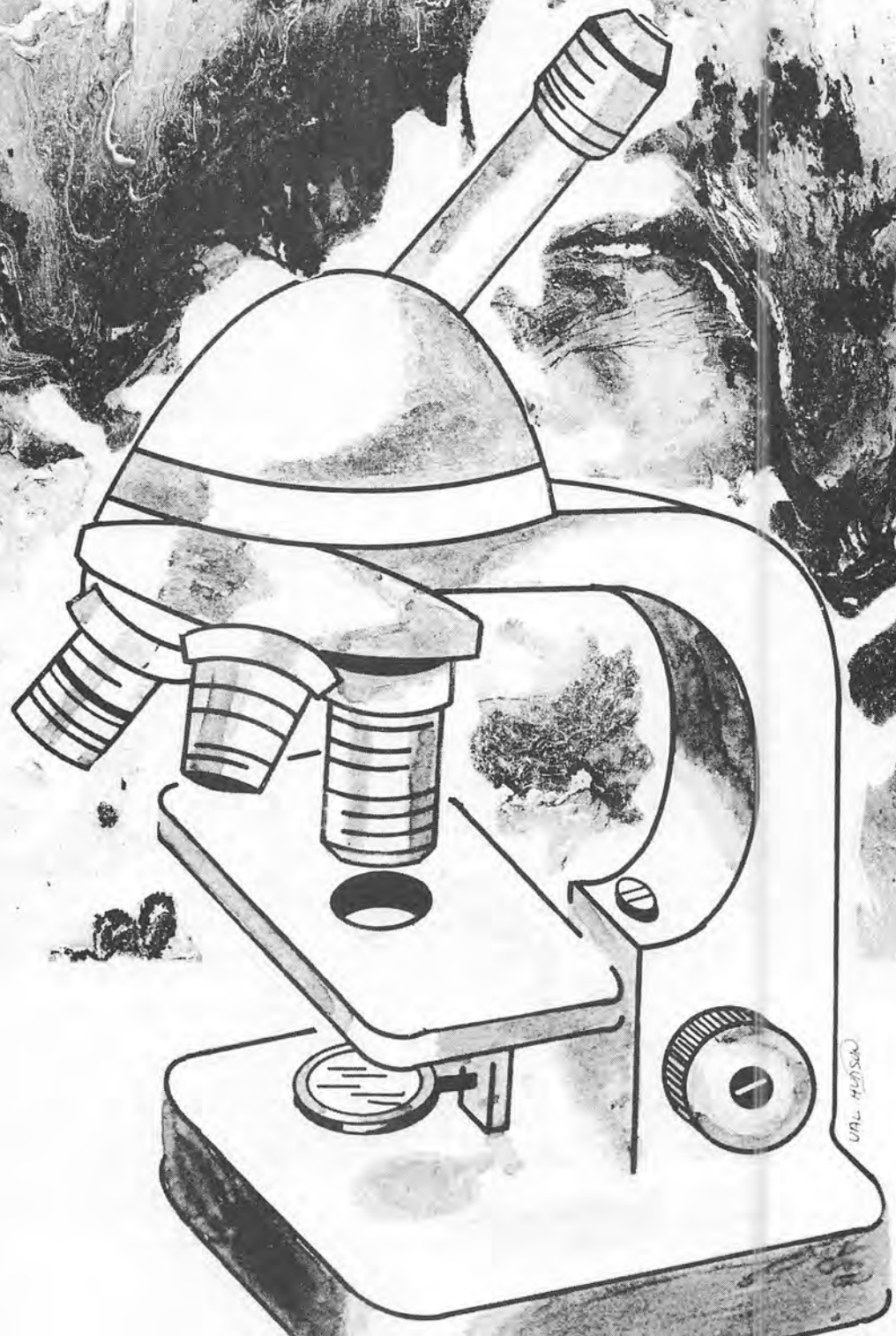
**149—THEORETICAL AIRCRAFT POWERPLANT MAINTENANCE 6 UNITS**  
(Formerly Aerospace Technologies 149)

*Prerequisite:* Six months full-time employment in the aviation industry engaged in repair, maintenance, or overhaul of aircraft reciprocating powerplants, or completion of Aviation and Transportation 148.

The successful completion of Aviation and Transportation 148 and 149 will prepare the student with the theoretical background necessary to pass the Federal Aviation Administration Written Examination for the powerplant rating. The course consists of the theoretical study of reciprocating and gas turbine fuel systems including float pressure, and injection systems; propellers and propeller operation and governing systems; weight and balance; line maintenance and troubleshooting.

Lecture 6 hours.





VAL HANSON

# Biology

## 101—GENERAL BIOLOGY 4 UNITS

*Prerequisite:* Chemistry 101 or Chemistry 110.

The first half of a one-year course designed for science majors covering fundamental biological processes; from the history and philosophy of biology through molecular biology, cell structure and function, physiology of the organism, and classification.

Lecture 3 hours, laboratory 3 hours.

## 102—GENERAL BIOLOGY 4 UNITS

*Prerequisite:* Biology 101.

A continuation of the study of fundamental biological processes. Includes embryology, behavior, ecology, Mendelian and fine genetics, evolution, and global biology.

Lecture 3 hours, laboratory 3 hours.

## 112—MICROBIOLOGY 5 UNITS

*Prerequisite:* Biology 101-102 or Biology 120 or Biology 121.

A study of life using microorganisms (algae, bacteria, molds protozoa, viruses, and yeasts) as prototypes. Includes microbial biochemistry, genetics, cellular and ultracellular activities, applied uses, and pathogenicity of these forms of life. In laboratory each student will also identify two unknown microbial organisms which he has separated from their normal habitats, i.e. soil, pond water, sea water, etc.

Lecture 3 hours, laboratory 6 hours.

## 120—HUMAN ANATOMY 4 UNITS

*Prerequisite:* None.

*Note:* Primarily for physical education and nursing students.

In this study of human structure, a detailed dissection is made of the cat; head of the dog fish shark; eye and brain of the sheep; and a careful study of the human skeleton. Lectures supplemented by charts, models and films.

Lecture 2 hours, laboratory 6 hours.

## 121—INTRODUCTION TO PHYSIOLOGY 4 UNITS

*Prerequisite:* None.

A laboratory course in the functions of the various systems of the human body. Lectures, charts, models, and experimental materials. Course required for pre-nursing students, elective for others.

Lecture 3 hours, laboratory 3 hours.

## 122—INTRODUCTION TO BIOLOGY 4 UNITS

*Prerequisite:* None.

Designed to give a cultural appreciation of the scientific method and an elementary working knowledge of the fields studied. A liberalized approach to the study of living organisms, both plant and animal. The emphasis is on the dynamic processes and functional inter-relationships between living organisms. Primarily for students majoring in fields other than the biological sciences.

Lecture 3 hours, laboratory 3 hours.

## 123—EVOLUTION AND SOCIETY 3 UNITS

*Prerequisite:* None.

A presentation of selected aspects of the biological sciences having social implications for man in the twentieth century. The history and impact of Darwinism and Mendelism on biological and social thought and action.

Lecture 2 hours, laboratory 2 hours.

## 124—ECOLOGY 3 UNITS

*Prerequisite:* None.

Biology 124 examines the contemporary problems of population and pollution in terms of basic ecological concepts including energy flow, cycles, populations, ecological communities and man's place in the system.

Lecture 2 hours, laboratory 2 hours.

## 125—MARINE BIOLOGY 4 UNITS

*Prerequisite:* None.

Marine Biology is a study of the life forms of the ocean and their adaptations to the marine environment. The course surveys organisms common to the rocky coast, sandy beaches, wharf pilings, and estuaries. Emphasis



1.59T  
1.57  
1.56  
1.55  
1.54  
1.53  
1.52  
1.51  
1.50  
1.49  
1.48  
1.47  
1.46  
1.45  
1.44  
1.43  
1.42  
1.41  
1.40  
1.39  
1.38  
1.37  
1.36  
1.35  
1.34  
1.33  
1.32  
1.31  
1.30  
1.29  
1.28  
1.27  
1.26  
1.25  
1.24  
1.23  
1.22  
1.21  
1.20  
1.19  
1.18  
1.17  
1.16  
1.15  
1.14  
1.13  
1.12  
1.11  
1.10  
1.09  
1.08  
1.07  
1.06  
1.05  
1.04  
1.03  
1.02  
1.01  
1.00  
0.99  
0.98  
0.97  
0.96  
0.95  
0.94  
0.93  
0.92  
0.91  
0.90  
0.89  
0.88  
0.87  
0.86  
0.85  
0.84  
0.83  
0.82  
0.81  
0.80  
0.79  
0.78  
0.77  
0.76  
0.75  
0.74  
0.73  
0.72  
0.71  
0.70  
0.69  
0.68  
0.67  
0.66  
0.65  
0.64  
0.63  
0.62  
0.61  
0.60  
0.59  
0.58  
0.57  
0.56  
0.55  
0.54  
0.53  
0.52  
0.51  
0.50  
0.49  
0.48  
0.47  
0.46  
0.45  
0.44  
0.43  
0.42  
0.41  
0.40  
0.39  
0.38  
0.37  
0.36  
0.35  
0.34  
0.33  
0.32  
0.31  
0.30  
0.29  
0.28  
0.27  
0.26  
0.25  
0.24  
0.23  
0.22  
0.21  
0.20  
0.19  
0.18  
0.17  
0.16  
0.15  
0.14  
0.13  
0.12  
0.11  
0.10  
0.09  
0.08  
0.07  
0.06  
0.05  
0.04  
0.03  
0.02  
0.01

1.50  
6.27  
8.59  
5.75  
1.62  
73T  
1.71T  
35  
76  
1.71T  
60

305  
42  
6.21T

-1-  
July 8

11.97  
3.75  
14.74  
36.87  
2.10  
4.10  
73.53T

3.55  
1.85  
6.65  
4.10  
16.25

NEVERIA

is placed on field studies and laboratory examination of organisms from the local marine communities. Participation in field work is a necessary and required part of the class.

Lecture 2 hours, laboratory 4 hours.

**129—DIRECTED STUDIES IN MARINE ECOLOGY** 1-3 UNITS

*Prerequisite:* Biology 125 or Biology 101 and Biology 102

A course emphasizing individual investigation of the natural marine environment through field and laboratory studies. Students examine the inter-relationship between marine organisms and their habitats by special projects dealing with a particular problem. Library research, a scientific paper, and an oral presentation of the directed studies are an integral part of the course. Field studies will investigate various localities during different semesters; such as, Baja California, the Channel Islands, the Northern California Coast, and local marine habitats.

3-9 hours field and laboratory study.

**130—FIELD BIOLOGY** 5 UNITS

*Prerequisite:* None.

*Note:* A course in either high school or college biology or equivalent is recommended.

Ecological studies of alpine to lower desert and aquatic communities. Emphasis is on field investigation of the types, distribution, and diversity of plants and animals within each community. Environmental factors such as climate, soils, and landforms will be integrated with community studies. An extended period in the field may be substituted for a number of shorter field trips (see current class schedule).

Lecture, investigation, and demonstration 7 hours.

**137—FIELD BOTANY** 5 UNITS

*Prerequisite:* None.

A study of the plant materials and the ecology of the plant communities of Southern California. Two week-end Field Trips are included.

Lecture 3 hours, laboratory 6 hours.

**138—HORTICULTURE**

3 UNITS

*Prerequisite:* None.

Biology 138 is a study of the names and requirements of exotic and native plants used in ornamental horticulture in the Los Angeles area. Basic principles and practices in propagation, pruning, diseases, and insect control. Extensive laboratory work with living specimens in the greenhouse. Field trips to local nurseries and parks.

Lecture 2 hours, laboratory 2 hours.

**BOTANY**

See **Biology 137**.

## Business

**REAL ESTATE**

See **Real Estate Page 212**.

**STATISTICS**

See **Economics 107**.

**SUPERVISION**

See **Management Page 179**.

**WORK EXPERIENCE**

See **Cooperative Education Page 142**.

**101—PRINCIPLES OF ACCOUNTING** 4 UNITS

*Prerequisite:* None.

*Note:* Required of business administration majors; this sequence (Business 101 and Business 102) satisfies lower division accounting requirements for most four-year colleges.

Thoroughly covers the accounting equation, the theory of debit and credit, the classification of accounts, the study of recording, analyzing and summarizing procedures in modern accounting devices; the preparation and analysis of balance sheets and income statements, payroll, systems design and automated data processing.

Lecture and laboratory 5 hours.

**102—PRINCIPLES OF ACCOUNTING 4 UNITS**

*Prerequisite:* Business 101.

*Note:* Required of business administration majors; this sequence (Business 101 and Business 102) satisfies lower division accounting requirements for most four-year colleges.

Comprises a continuation of Business 101. Deals with partnership and corporation accounts; manufacturing and cost accounting (including job order, process, and standard); absorption costing and variable costing; cost-volume-profit analysis; tax accounting; construction and use of accounting statements and reports for management control and decision-making purposes; financial statement analysis.

Lecture and laboratory 5 hours.

**105—BASIC ACCOUNTING 4 UNITS**

*Prerequisite:* None.

*Note:* Recommended for students who do not intend to transfer to a four-year college. Business 117 should precede or be taken concurrently. No credit will be allowed for Business 105 if taken concurrently with Business 101 or after completion of Business 101 or Business 102 with a "C" grade or better.

An introductory course in bookkeeping including study of the accounting equation, the theory of debit and credit, accounting devices, working papers and business forms, and the preparation of balance sheets and income statements.

Lecture 4 hours, laboratory 1 hour.

**106—BASIC ACCOUNTING 4 UNITS**

*Prerequisite:* Business 105 or two years of bookkeeping in high school.

A study of bookkeeping principles as applied to partnerships, corporations, departments, and branches. Emphasis is placed on practical bookkeeping problems more than on theory.

Lecture 4 hours, laboratory 1 hour.

**108—INCOME TAX ASSISTANCE 2 UNITS**

*Prerequisite:* None.

*Note:* The course is designed for non-professionals.

Income Tax Assistance is a course that focuses on the completion of tax forms and itemized deductions and a technical proficiency in tax law.

Lecture 2 hours.

**109—VOLUNTEER INCOME TAX ASSISTANCE 2 UNITS**

*Prerequisite:* Business 108.

*Note:* The course is designed for non-professionals.

Volunteer Income Tax Assistance is a course that applies the fundamental knowledge learned in Business 108 — Income Tax Assistance. With the assistance of the instructor and Internal Revenue agents, students will assist low income and disadvantaged citizens in the Glendale community in the preparation of federal tax forms.

Lecture 1 hour, laboratory 2 hours.

**111—FINITE MATHEMATICS 5 UNITS**

*Prerequisite:* Mathematics 101 or equivalent in high school with a grade of "C" or better, or qualifying score on a mathematics proficiency test.

An introductory study to include the following: a review of number properties; exponents and roots, Boolean Algebra as applied in set theory, circuits, logic statements and binary arithmetic; fundamentals of algebra and analytic geometry; linear and quadratic functions; matrices; and linear programming including the Simplex method. Applications to problems in finance, accounting, marketing, production, and personnel management, where possible.

Lecture and discussion 5 hours.

**112—MATHEMATICAL ANALYSIS 5 UNITS**

*Prerequisite:* Business 111 with a grade of "C" or better.

A study of exponential, logarithmic and polynomial functions; conic sections; differential and integral calculus of several variables; numerical integration; maxima and minima under constraints using La Grange multipliers; and infinite series.

Lecture and discussion 5 hours.

**117—BUSINESS MATHEMATICS****1-2 UNITS**

*Prerequisite:* Mathematics 150 or satisfactory score on the Mathematics Proficiency Examination.

An intensive course which develops speed and accuracy in the fundamentals of business arithmetic, incorporating shortcuts where applicable and the technique of estimating answers. Business application include calculations pertaining to percentage, interest, commission, bank discount, negotiable instruments, annuities, mortgages, payroll, depreciation, and bank reconciliation. Business vocabulary is stressed, with an introduction to progression and the binary number system. The student progresses through the course at his own pace.

Laboratory and individual instruction 2 hours.

**119—ADVANCED BUSINESS MATHEMATICS****1 UNIT**

*Prerequisite:* Business 117

An advanced course presenting business applications of mathematics pertaining to cash and trade discount, profit and loss, merchandising, income and property taxes, fire and life insurance, stocks, bonds, and other securities. The student progresses through the course at his own pace.

Laboratory and individual instruction 2 hours (8 weeks).

**122—INTRODUCTION TO BUSINESS DATA PROCESSING (Formerly Business 123)****2 UNITS**

*Prerequisite:* None.

*Note:* Business 101 or Business 105 recommended.

An orientation course designed to introduce the terminology and concepts of electromechanical and electronic data processing. Topics include history and development of data processing, punched card equipment, digital computers, data representation, computer programming languages, and management information systems.

Lecture 4 hours. (8 weeks).

**124—COMPUTER OPERATIONS****3 UNITS**

*Prerequisite:* Business 122 or equivalent work experience.

*Note:* Business 101 or Business 105 recommended.

Studies the use, operation, and capabilities of computer systems. Students will learn to operate the computer and its peripheral equipment, with major emphasis on flowcharting, data flow, scheduling, and distribution of reports.

Lecture and discussion 3 hours.

**126—ADVANCED PROGRAMMING PRINCIPLES****3 UNITS**

*Prerequisite:* Business 122 and either Business 128 or Business 129 or Business 130 or equivalent work experience with consent of instructor.

An advanced course in the third and fourth generation operating systems, data base management, and data communications.

Lecture and discussion 3 hours.

**127—INTRODUCTION TO IBM SYSTEMS 360 AND 370 PROGRAMMING PRINCIPLES****3 UNITS**

*Prerequisite:* A grade of "C" in Business 122 and either Business 128 or Business 129 or Business 130 or equivalent work experience in data processing and computer systems.

An introduction to third generation computer concepts through an analysis of the latest IBM computers — components of the IBM Systems 360 and 370, input and output devices and channels, characteristics of the central processing unit, data representation, the supervisor program, data management, magnetic tape concepts, direct access storage devices, programming systems, teleprocessing, and multiprogramming.

Lecture and discussion 3 hours.

**128—BASIC PROGRAMMING (Formerly Business 123)****2 UNITS**

*Prerequisite:* Business 122 (may be taken concurrently) or Business 101 or Business 111 or Mathematics 101 or equivalent work experience.

A course in programming time-shared computers using BASIC programming language, which includes defining the problem; flowcharting; writing, executing, and debugging application programs; and program documentation. A student may choose application programs per-

taining to his own subject area and process these programs using the time-sharing equipment of the on-campus computer.

Lecture and discussion 3 hours, laboratory 2 hours to be arranged (8 weeks).

### 129—FORTRAN PROGRAMMING 2 UNITS

*Prerequisite:* Business 128 or Business 101 or Business 111 or Mathematics 101 or equivalent work experience.

*Note:* No credit will be granted to students who have already received credit for Mathematics 130.

A course in programming computers in the FORTRAN language for those who plan to be programmers or for those whose work may be related to computer applications in business, industry, or education. A student may write application programs pertaining to his own subject area and test these programs by batch-processing.

Lecture and discussion 3 hours, laboratory 2 hours to be arranged (8 weeks).

### 130—COBOL PROGRAMMING 3 UNITS

*Prerequisite:* A grade of "C" or better in Business 122 and either Business 128 or Business 129 or equivalent work experience in, or knowledge of, data processing and computer programming.

*Note:* Business 101 or Business 105 recommended.

A study of the elements and capabilities of COBOL (Common Business Oriented Language). Programming COBOL as it applies to most common computer systems configurations and to business problem-solving applications. Includes rules for COBOL words, statements, divisions, file usage, literals, page format, debugging, table generation, disk and magnetic tape files, editing, and other features.

Lecture and discussion 3 hours.

### 135—SYSTEMS ANALYSIS 3 UNITS

*Prerequisite:* Business 122.

*Note:* Business 141 and either Business 101-102 or Business 105-106 are recommended.

Study of systems and procedures, design of a system,

its implementation and installation, and finally its operation, evaluation, and modification. Includes analysis of various existing applications in business and industry.

Lecture and discussion 3 hours.

### 137—DATA COMMUNICATIONS 3 UNITS

*Prerequisite:* Business 122 and either Business 129 or Business 130, or equivalent work experience.

Business 137 is a course designed to acquaint the student with the essential elements of on-line data communication systems including terminals, line potentials, and equipment necessary at the central computer site. The course also includes actual programming of an application and debugging it on the computer.

Lecture 3 hours.

### 138—DATA BASE MANAGEMENT 3 UNITS

*Prerequisite:* Business 130 and Business 137, or equivalent work experience.

Business 138 is a course designed to acquaint the student with the elements of data base management which creates file structures to reduce the time and cost of writing programs to store and retrieve information. Topics include mass storage devices, access methods, and the relationship of files to the total system. Particular emphasis is placed on the on-line data base management system and its relationship to the operating system.

Lecture 3 hours.

### 141—INTRODUCTION TO BUSINESS ORGANIZATION AND MANAGEMENT 3 UNITS

*Prerequisite:* None.

Orients students to the field of business. Introducing, in survey form, the functions, characteristics, organization, and problems of business. Serves as a foundation for later specialized study, and directs the thinking of students to possible careers.

Lecture and discussion 3 hours.



**142—IT'S EVERYBODY'S BUSINESS** .2 UNITS  
TV only

*Prerequisite:* None.

It's Everybody's Business is designed to provide the general public with an understanding of how the American business enterprise system provides goods and services within the legal and ethical framework of the American economy. The course emphasizes the accountability of the business enterprise to the public, owners, and the management of resources through organization, financing, production, and marketing.

30 one-half hour television presentations.

**143—BUSINESS MACHINES** 2 UNITS

*Prerequisite:* None.

*Note:* Recommended for all business majors.

Development of skill in the operation of rotary, printing, and electronic calculating machines. (Key-driven calculators and ten-key adding machines are available to students who request them.) Prepares transferring accounting students to take machines proficiency test required at some four-year institutions.

Lecture, demonstration, discussion, and laboratory 3 hours.

**145—ENGLISH FOR BUSINESS** 3 UNITS

*Prerequisite:* None.

*Note:* This course allows one unit of credit for students who have completed English 101, and two units of credit for students who have completed English 120, 131, or 191.

A course designed to help secretarial and business students achieve proficiency in grammar, punctuation, vocabulary, syllabication, and sentence structure.

Lecture and discussion 3 hours.

**146—LANGUAGE FOR BUSINESS —** 5 UNITS  
BILINGUAL

*Prerequisite:* A satisfactory score on the English Placement Examination; and completion of, or concurrent enrollment in, either Spanish 103 or Spanish 115 (for students with native Spanish speaking background) or equivalent.

*Note:* Credit will be granted for only one; Business 146 or Spanish 146. This course allows three units of credit for students who have completed English 101 and 4 units of credit for students who have completed English 120, 131, or 191.

Business 146/Spanish 146 is a course designed to help bilingual secretarial and business students achieve proficiency in the grammar, punctuation, vocabulary, syllabication, and sentence structure of both languages.

Lecture and discussion 5 hours.

**147—WRITTEN BUSINESS** 3 UNITS  
COMMUNICATIONS

*Prerequisite:* Business 145 or Business 146; or English 101 or English 120; or a satisfactory score on the English Placement Examination.

A course designed to help students develop proficiency in writing modern business letters and reports. A vigorous up-to-date approach is given to managerial problems in correspondence, including dictation, and letters of adjustment, credit, collection, and sales. Special emphasis is given to application letters. Particular attention is given to the human relations aspect of communications as well as the role played by language.

Lecture and discussion 3 hours.

**149—INSURANCE PRINCIPLES** 3 UNITS

*Prerequisite:* None.

Acquaints the student with insurance of various types: life, fire, casualty and social insurance. Policies are analyzed to understand basic provisions; such as, costs in relation to benefits provided and obligations of both parties. Insurance is studied from the standpoint of logic, types of carriers, legal aspects, limitations, and loss adjustment features.

Lecture, discussion, films, and speakers, 3 hours.

**150—FAMILY RISK MANAGEMENT—** 2 UNITS  
TV only

*Prerequisite:* None.

Family Risk Management is designed to acquaint the general public with the problems of managing personal and business risks, both major and minor. The course will acquaint the student with insurance of various types; such as, personal liability, sickness, accidental in-



jury, social security, unemployment, workmen's compensation, death, fire, and other property hazards. The course stresses planning and preventing or minimizing risks; for example, preventive medicine and family estate planning.

Lecture and discussion 2 hours.

### 151—MONEY AND BANKING 2 UNITS

*Prerequisite:* None.

A course designed to help young men and women secure employment with investment banking houses, commercial banks, finance companies, stock and commodity exchanges, and securities dealers. It is a study of the American monetary system and of the history of American financial institutions. The objectives of the course are an understanding of the Federal Reserve structure, monetary and fiscal policy and the commercial banking process.

Lecture, class discussion, problems, and reports, 2 hours.

### 153—INVESTMENTS 2 UNITS

*Prerequisite:* None.

Provides the student with an understanding of investment of objectives, basic types of securities, operation of stock exchanges, investment banking, investment principles, and personal financial planning.

Lecture, discussion, problems, and reports, 2 hours.

### 155—PERSONAL FINANCE 2 UNITS

*Prerequisite:* None.

Personal finance involving effective use of family income, which includes savings for major investments and retirements, by a study of such consumer problems as intelligent buying, an evaluation of consumer research and product-testing organizations, taxes, insurance, household budget, cooperatives, banking, and renting or buying a home.

Lecture and discussion 2 hours.

### 156—CONSUMER EDUCATION 3 UNITS

*Prerequisite:* None.

Consumer Education is designed for the general public

with specific emphasis on problems associated with teens, young adults, newly formed families, and early, middle, and late years of adult life. Concerns the study of comparative shopping techniques, consumer decisions according to rational priorities, and avenues of participation in the legislative process as they affect consumers.

Lecture and discussion 3 hours.

### 157—NOTEMAKING FOR SCHOOL AND BUSINESS 3 UNITS

*Prerequisite:* None.

Principles of notemaking are integrated with a phonetic system of briefhand for classroom and vocational use. Adaptable for notemaking in college classes, offices, business conferences, seminars, interviews, and for research report writing. Notemaking should be of interest to (a) all business majors who do not enroll in the secretarial programs and (b) majors in other subject areas where a great deal of notemaking is essential, and (c) business and professional people who must attend conferences and meetings and those who prepare reports, speeches, articles, and research papers.

Lecture 3 hours.

### 161—BUSINESS LAW 3 UNITS

*Prerequisite:* None.

A study of law as it influences business conduct, including growth of law and recent changes, especially the new Uniform Commercial Code, and principles of contracts, bailments, and agency.

Cases, lecture, and discussion 3 hours.

### 162—BUSINESS LAW 3 UNITS

*Prerequisite:* Business 161.

Deals with the law of sales, negotiable instruments, partnership corporations, and trade regulation.

Cases, lecture, and discussion 3 hours.

### 165—LAW FOR THE LAYMAN 3 UNITS

*Prerequisite:* None.

A survey of legal problems which confront people in

their everyday life activities. Included is a study of courts, trials, marriage and divorce, community property, wills, trusts, succession, mortgage, trust deeds, conditional sales, crimes, torts, homesteads, the Corporate Securities Act, the Workmen's Compensation Act, and many other principles of business law.

Lecture and discussion 3 hours.

### 171—PRINCIPLES OF MARKETING 3 UNITS

*Prerequisite:* None.

An introductory course intended to acquaint students with the business practices involved in the activities of moving goods and services from the producer to the ultimate consumer. The course reviews the marketing system and the psychology and sociology of consumer decisions. Additional areas of interest include: retailing; wholesaling; new product decisions; pricing; distribution; advertising; and marketing research.

Lecture and discussion 3 hours.

### 173—STORE MANAGEMENT AND MERCHANDISING 3 UNITS

*Prerequisite:* None.

Problems considered in this course are of concern to the store manager, a department store buyer, or to the person who wishes to organize and operate a small store. The course covers plans for financing, selection of location, choice of partnership or corporation, selection and training of employees, merchandising policies, problems of mark-up, mark-down, turnover, stock control, inventory methods, layout, advertising and display. Outside speakers from local stores will be scheduled.

Lecture 3 hours.

### 175—SALESMANSHIP 2 UNITS

*Prerequisite:* None.

A salesmanship class in which each student selects a sales proposition, makes a careful study of it, and presents it before the class. The methods of approaching a prospect, demonstrating the goods, and closing the sale are discussed and reviewed. Fundamental principles of retail, wholesale and specialty selling are discussed. Successful salesmen are invited to give demonstrations

of how sales actually are made.

Lecture 2 hours.

### 177—ADVERTISING 2 UNITS

*Prerequisite:* None.

An introductory course in the purpose and principles of advertising, including the organization and functions of advertising agencies. Buying motives and the writing of good copy are studied. Radio, television, and outdoor advertising methods and costs are covered. This course is not intended to develop artistic ability, but those who can illustrate their copy will find an opportunity to do so. Courses in advertising art are offered by the Art Department.

Lecture, discussion, and special reports 2 hours.

### 180—BANKING OPERATIONS 3 UNITS

*Prerequisite:* None.

Provides an understanding of the basic functions of banking and a working knowledge of a bank.

Lecture 3 hours.

### 181—FINANCIAL STATEMENT ANALYSIS 3 UNITS

*Prerequisite:* Business 101, or equivalent.

Provides a complete understanding of the Income Statement of the Balance Sheet. These financial statements are further analyzed as to components, and ratios are developed to determine the firm's financial position.

Lecture 3 hours.

### 182—INSTALLMENT CREDIT 3 UNITS

*Prerequisite:* None.

Explains the evolution of installment credit and its current status. Credit risk evaluation is analyzed from the standpoint of loan information, interview, investigation, and credit decisions. Practical applications of cost analysis, rate structures, and collection procedures are presented.

Lecture 3 hours.

**201—BEGINNING SHORTHAND 1-5 UNITS**

*Prerequisite:* Completion of, or concurrent enrollment in, the following: (1) Business 145 <sup>OR BUSINESS 146</sup> or a satisfactory score on the English Placement Examination, and (2) Business 242 or equivalent.

*Note:* Students who can take dictation at least 60 words a minute should enroll in Business 202. In classes where individualized instruction is given, a student may complete one module of instruction for one unit of credit, with a maximum of five units for this course.

An introductory course in shorthand covering theory, speed development, and beginning transcription skills.

Lecture, discussion, demonstration, and laboratory 5 hours.

**202—SHORTHAND TRANSCRIPTION I 1-3 UNITS**

*Prerequisite:* Business 201 (5 units), or at least one year of shorthand in high school; and concurrent enrollment in Business 235 and Business 211 (enrollment for the second unit is optional upon achievement of 80 wpm); and completion of, or concurrent enrollment in, the following: (1) Business 243 or equivalent, and (2) Business 145 <sup>OR BUSINESS 146</sup> or a satisfactory score on the English Placement Examination.

*Note:* Students who have earned a "B" grade in second-year shorthand in high school should enroll in Business 203. In classes where individualized instruction is given, a student may complete one module of instruction for one unit of credit, with a maximum of three units for this course.

Continuation of Business 201, which incorporates review of theory, transcription techniques, and English skills to produce mailable letters.

Lecture, discussion, demonstration, and laboratory 3 hours.

**203—SHORTHAND TRANSCRIPTION II 3 UNITS**

*Prerequisite:* Business 202 (3 units), or a "B" grade in second-year shorthand in high school; and concurrent enrollment in Business 211 (enrollment for the second unit is optional upon achievement of 100 wpm); and completion of, or concurrent enrollment in, Business 231 and Business 243.

Finishing course for the executive secretary. Emphasis will be on office style dictation of business communications, applying transcription skills acquired in Business 202.

Lecture, discussion, demonstration, and laboratory 3 hours.

**207—LEGAL SECRETARIAL TRAINING I 3 UNITS**

*Prerequisite:* Business 202 (3 units) and Business 242, or two years of typing and shorthand in high school.

A course offering specialized training in legal phraseology, spelling, specific training in the preparation of legal documents, office routine and methods, and other legal procedures information.

Lecture and discussion 3 hours.

**208—LEGAL SECRETARIAL TRAINING II 3 UNITS**

*Prerequisite:* Business 207.

Business 208 is an advanced legal secretarial course offering specific training in the preparation and filing of legal documents, including citations, points and authorities, and motions; general discussion of research methods; and the applicable law in preparation of such materials.

Lecture 3 hours.

**210—SHORTHAND REVIEW 1-2 UNITS**

*Prerequisite:* Prior training in shorthand.

*Note:* A student may take this course for 1-2 units each semester, with a maximum of two units for this course.

A quick, thorough review of the theory of shorthand, which provides an opportunity to brush up on principles, brief forms, phrases, and high-frequency words.

Lecture and laboratory 2 hours.

**211—SHORTHAND SPEED DEVELOPMENT 1-2 UNITS**

*Prerequisite:* Business 201 (4 units), or one year of high school shorthand or equivalent.

*Note:* A student may take this course for 1-2 units each semester, with a maximum of six units for this course.

A course offering shorthand speed development on an individualized basis with dictation ranging from 50 words a minute to 160 words a minute.

Lecture and laboratory 2 hours.

### 221—MEDICAL TERMINOLOGY I 3 UNITS

*Prerequisite:* None.

Designed to familiarize those interested in the medical field with origin, correct spelling, pronunciation, meaning and current usage of common medical terms and their application to clinical records and reports. Emphasis will be placed on the roots, prefixes, suffixes, and word combinations.

Lecture 3 hours.

### 222—MEDICAL TERMINOLOGY II 3 UNITS

*Prerequisite:* Business 221.

Continuation of Business 221. Designed to provide an adequate vocabulary for persons interested in employment in the medical profession. Emphasis will be placed on the roots, prefixes, suffixes, and word combinations, as well as on medical abbreviations, symbols, and terms common in patients' records and laboratory reports.

Lecture 3 hours.

### 225—MEDICAL OFFICE PROCEDURES — 3 UNITS (ADMINISTRATIVE)

*Prerequisite:* Present employment or six months of previous experience in a medical facility or enrollment in the Medical Assistant certificate program.

A course offering an introduction to the medical office and concentrating on the Medical Assistant's role in the maintenance of a professional and efficient medical office, including: career guidelines and professional qualifications; public relations; courteous and effective handling of patients, doctors, and co-workers; preparation and care of medical records; correspondence; financial records; insurance; and general management of a medical facility. Training will be applicable in office of physicians, medical hospitals and clinics, dental and mediolegal agencies and government-sponsored medical facilities.

Lecture 3 hours.

### 231—OFFICE ORIENTATION 3 UNITS

*Prerequisite:* Business 241, or Business 257, or one year of typing in high school.

A detailed study of general office procedures, including: the selection of office supplies; the processing of mail; use of postal and telegraph services; receptionist and telephone techniques; handling travel arrangements; data processing; preparation of reports; banking procedures; payroll, insurance, and tax records; legal forms; and the job interview.

Lecture 2 hours, laboratory 2 hours.

### 233—COPY PROCESSES AND RECORDS MANAGEMENT 2 UNITS

*Prerequisite:* Business 241 or Business 257 or one year of typing in high school.

*Note:* Recommended also for students who desire to become aides to the instructional staff or in administrative offices at Glendale Community College.

Development of knowledge, skill, creativity, and judgment in the performance of two essential office duties—duplication and management of office records. Study of the five duplication processes—what they are, specific applications of each, and cost comparison; creation of masters; and operation of the fluid duplicator, mimeograph, and copy machines. Intensive training in filing and records management.

Lecture, discussion, demonstration, and laboratory 3 hours.

### 235—MACHINE TRANSCRIPTION BUSINESS 2 UNITS

*Prerequisite:* Business 241 or one year of typing in high school; and completion of, or concurrent enrollment in, Business 145 or a satisfactory score on the English Placement Examination ~~OR BUSINESS 146~~

A course in machine transcription which presents modern business procedures, terminology, and equipment in a work environment through which knowledge, realistic skills, and attitudes are developed.

Lecture, discussion, demonstration, and laboratory 3 hours.

**236—MACHINE TRANSCRIPTION, LEGAL 2 UNITS**

*Prerequisite:* Business 241 or one year of typing in high school; and completion of, or concurrent enrollment in, Business 145 or a satisfactory score on the English Placement Examination. *OR BUSINESS 146*

Development of proficiency in the operation of transcription machines. Students will type legal communications from dictation on the machine, and they will have practice in typing legal forms commonly used in legal offices. Emphasis will be placed on excellence in typing and proficiency in use of English skills, such as spelling, grammar, punctuation, etc.

Lecture 2 hours, laboratory 2 hours.

**237—MACHINE TRANSCRIPTION 2 UNITS  
MEDICAL**

*Prerequisite:* Business 241 or one year of typing in high school; and completion of, or concurrent enrollment in the following: (1) Business 221, and (2) Business 145 or a satisfactory score on the English Placement Examination. *BUSINESS 146*

Development of proficiency in the operation of transcription machines. Students will type medical communications from dictation on the machine, and they will have practice in typing medical forms commonly used in medical offices. Emphasis will be placed on excellence in typing and proficiency in use of English skills, such as spelling, grammar, punctuation, etc.

Lecture, discussion, demonstration, and laboratory 3 hours.

**241—BEGINNING TYPING 3 UNITS**

*Prerequisite:* None.

The basic skills of keyboard techniques are developed to give the foundation for advanced training in typing. Training is given in the preparation of memorandums, personal letters, business letters, simple tabulation, outlines, and manuscripts.

Lecture, demonstration, and laboratory 5 hours.

**242—INTERMEDIATE TYPING 3 UNITS**

*Prerequisite:* Business 241 or a typing speed of at least 30 words a minute.

Continuation of Business 241. Refinement and development of technique with increased emphasis on accuracy and speed. Detailed study of business letters, special office forms, tabulated reports, and manuscripts.

Lecture, demonstration, and laboratory 5 hours.

**243—ADVANCED TYPING 3 UNITS**

*Prerequisite:* Business 242 or a typing speed of at least 40 words a minute.

Advanced typing is vocational, and the standards are set in terms of business demands. This program is designed to help the student to develop and integrate all of the "back-up" skills, knowledge, and techniques into a complete production typewriting skill. Emphasis is placed upon the development of accuracy and speed both in straight-copy material and in production projects and upon the application of related learnings.

Lecture, demonstration, and laboratory 5 hours.

**245—WORD PROCESSING I 1 UNIT**

*Prerequisite:* A typing speed of at least 50 words a minute on an electric typewriter.

Training in the operation of word processing equipment, which is particularly adaptable to school, business, and government offices requiring volume typing, repetitive typing, and typing from rough draft, to produce personalized letters, statistical tables, forms, legal documents and instruments, and other forms of office communications.

Lecture, demonstration, laboratory 3 hours (8 weeks).

**246—WORD PROCESSING II 1 UNIT**

*Prerequisite:* Business 245.

*Note:* Business 235 or Business 236 or Business 237 is recommended.

Continuation of Business 245. Thorough review of word processing principles with major emphasis on applications pertaining to business office communications. New techniques will be learned involving indented materials and automatic letter writing.

Demonstration, laboratory 3 hours. (8 weeks)

**249—LEGAL TYPING****1 UNIT**

*Prerequisite:* Business 242 or typing speed of at least 40 words a minute.

A course offering specific training in and supervision of preparation of legal documents.

Lecture and laboratory 2 hours.

**257—PERSONAL TYPING****1-2 UNITS**

*Prerequisite:* None.

*Note:* Recommended for nonclerical and nonsecretarial majors.

Introductory typing which offers the student an opportunity to learn how to operate the typewriter for his own personal use. Emphasis is placed on basic skill development and on theory concepts.

Lecture 1 hour, laboratory 1 hour.

# Carpentry

**151—WOODWORK****(SEE NOTE)**

*Prerequisite:* None.

*Note:* Maximum credit per semester will be 5 units. Proportionately less credit may be earned for carrying less than a full schedule. A maximum of 20 units of credit will be allowed for Carpentry 151.

Workmanship, construction and functional design are emphasized, particularly in practical projects for home use and construction. Projects for class work may be selected by enrollees.

Lecture as required, laboratory 15 hours maximum per week.

# Chemistry

**101—GENERAL CHEMISTRY****5 UNITS**

*Prerequisite:* An introductory college chemistry course or high school chemistry or Physical Science 131 with a grade of "C" or better; Mathematics 101 with a grade of "C" or better or one and one-half years of algebra and one year of plane geometry in high school.

A course in fundamental chemistry designed to set forth the most important facts and theories with which chemistry is concerned. Basic laws and chemical calculations are stressed.

Lecture 3 hours, laboratory 6 hours.

**102—CHEMISTRY****5 UNITS**

*Prerequisite:* Chemistry 101 with a grade of "C" or better.

A continuation of the study of the basic concepts of general chemistry introduced in Chemistry 101, with emphasis on the theory and technique of qualitative analysis, including a brief introduction to organic chemistry.

Lecture 3 hours, laboratory 6 hours.

**103—QUANTITATIVE ANALYSIS****4 UNITS**

*Prerequisite:* Chemistry 102 with a grade of "C" or better.

*Note:* Chemistry 103 is required of pre-medical students. Chemistry 103 is recommended for majors in chemistry, physics, pharmacy, mining engineering, geology, metallurgical or petroleum engineering, sanitary and municipal engineering, certain agriculture and public health curricula and medical technologists.

Emphasis is on the principles and techniques of quantitative analysis, including calibration, volumetric, gravimetric and spectrophotometric procedures. Large numbers of illustrative problems are solved.

Lecture 2 hours, laboratory 6 hours.

**105—ORGANIC CHEMISTRY****5 UNITS**

*Prerequisite:* Chemistry 102 with a grade of "C" or better.

*Note:* Required of pre-medical and pre-dental students; recommended for majors in chemistry, petroleum engineering, sanitary and municipal engineering, and pharmacy; and for certain home economics, public health, and agriculture majors.

An introductory study of the compounds of carbon, including the preparation, properties, and reactions of both aliphatic and aromatic hydrocarbons, halogen derivatives, alcohols, and ethers. Methods of synthesis are

stressed, and reaction mechanisms and modern structural principles are introduced.

Lecture 3 hours, laboratory 6 hours.

### 106—ORGANIC CHEMISTRY 5 UNITS

*Prerequisite:* Chemistry 105 with a grade of "C" or better.

A study of the preparation, properties, and reactions of aliphatic, and aromatic acids, amines, aldehydes, ketones, carbohydrates, heterocyclic compounds, amino acids and proteins. Analysis as well as synthesis of compounds is stressed.

Lecture 3 hours, laboratory 6 hours.

### 107—INTRODUCTORY BIOCHEMISTRY 3 UNITS

*Prerequisite:* Chemistry 105 with a grade of "C" or better.

Subject matter includes a study of amino acids and proteins, enzymes, polysaccharides, photosynthesis and ATP, the citric acid cycle, lipids, vitamins, hormones, nucleic acids and molecular diseases. This course is intended as enrichment for science majors and as preparation for upper division biochemistry.

Lecture 2 hours, laboratory 3 hours.

### 110—ELEMENTS OF GENERAL CHEMISTRY 5 UNITS

*Prerequisite:* Mathematics 141 or one year of algebra in high school and Mathematics 140 or one year of plane geometry in high school.

A basic course in the fundamental principles, laws and computations of chemistry emphasizing the descriptive phases and including a brief introduction to the chemistry of the carbon compounds.

Lecture 4 hours, laboratory 3 hours.

### 115—CHEMISTRY FUNDAMENTALS FOR NURSES 3 UNITS

*Prerequisite:* Concurrent enrollment in Allied Health 101, 103, 105, 107 at Glendale Community College.

A course in fundamental chemistry for nurses (lecture only) designed to give the basic concepts of chemistry necessary for the nursing profession.

Lecture 3 hours.

### 141—INTRODUCTION TO CHEMISTRY 5 UNITS

*Prerequisite:* None.

*Note:* Recommended as a foundation course for either Chemistry 110 or Chemistry 101.

An introductory course emphasizing the essential principles of chemistry with a descriptive survey of chemical facts and including a brief introduction to elementary organic chemistry. Reference is made to industrial and practical home chemistry.

Lecture 4 hours, laboratory 3 hours.

### 143—INTRODUCTION TO CHEMISTRY 4 UNITS

*Prerequisite:* None.

*Note:* Recommended as a foundation course for either Chemistry 110 or Chemistry 101. This course will satisfy the chemistry requirement for many schools of nursing.

An introductory course emphasizing the essential principles of chemistry with a descriptive survey of chemical facts. Reference is made to industrial and practical home chemistry.

Lecture 3 hours, laboratory 3 hours.

## Cooperative Education

### 101—GENERAL WORK EXPERIENCE (SEE NOTE)

*Prerequisite:* Be enrolled in a college program of no less than eight (8) units including Cooperative Education and concurrent employment for a minimum of five (5) hours per week. Summer Session requires one other class in addition to Cooperative Education. The employment need not be related to the occupational goal of the student.

*Note:* The College is responsible for complete control of the planned programs of activities and does not delegate this authority to officials of the job establishment. Units are based on the number of hours worked per week. (a) 5-9 hours = 1 unit; (b) 10-14 hours = 2 units (c) 15 or more hours = 3 units. Credit for Summer Session is granted upon successful completion of one (1) unit for 75 hours of Cooperative Education, being enrolled in at least one other class, and meeting all other program requirements.

General Work Experience is supervised employment of students with the intent of assisting them in acquiring desirable work habits, developing career awareness, and promoting positive attitudes about jobs and the world of work. (This course is not applicable for benefits from the Veterans Administration.)

For the satisfactory completion of Cooperative Education, the District grants credit to the student not to exceed six semester units for Cooperative Education 101 and sixteen (16) semester units during the student's enrollment in any community college or colleges.

The certificated staff (classroom instructors) are responsible for the assignment of the final letter grade for each student, after careful consideration of the supervisor/employer student evaluation, and is the same as appears in the catalog courses.

No more than three (3) credit hours per semester, or Summer Session, with a maximum of six (6) semester credit hours during the student's enrollment in any community college or colleges.

Lecture 1 hour, class lecture preparation 2 hours, with appropriate written assignment, laboratory 5 or more hours. Weekly or monthly time sheets shall be turned in to the classroom instructor as announced.

## 102—OCCUPATIONAL WORK EXPERIENCE (SEE NOTE)

*Prerequisite:* Be enrolled in a college program of no less than eight (8) units including Cooperative Education and concurrent employment for a minimum of five (5) hours per week. Summer Session requires at least one other class in addition to Cooperative Education. The employment must be directly related to the student's two year career college program.

*Note:* The college is responsible for complete control of the planned program of activities and does not delegate this authority to officials of the job establishment. Units are based on the number of hours worked per week. (a) 5-9 hours = 1 unit; (b) 10-14 hours = 2 units; (c) 15-19 hours = 3 units; (d) 20 or more hours = 4 units. Credit for Summer Session is granted upon successful completion of one (1) unit for 75 hours of Cooperative Education, being enrolled in at least one other class, and meeting all other program requirements.

Occupational Work Experience is the extension of occupational learning opportunities and career awareness for students through employment in occupational fields for which their college programs (majors) are designed. (This course is applicable for benefits from the Veterans Administration.)

For the satisfactory completion of Cooperative Education, the District grants credit to the student not to exceed sixteen semester units during the student's enrollment in any community college or colleges.

The certificated staff (classroom instructors) are responsible for the assignment of the final letter grade for each student, after careful consideration of the supervisor/employer student-evaluation, and is the same as appears in the catalog for all other college courses.

No more than four (4) credit hours per semesters with a maximum of sixteen (16) semester credit hours during the student's enrollment in any community college or colleges. No more than three (3) credit hours may be earned during the Summer Session.

Lecture 1 hour, class lecture preparation 2 hours, with appropriate written assignment, laboratory 5 or more hours. Weekly or monthly time sheets shall be turned in to the classroom instructor as announced.

# Cosmetology

## 101—WIG AND HAIRPIECE SERVICING I 2 UNITS

*Prerequisite:* None.

Basic techniques in the skill of wig servicing. Emphasis is placed on fundamentals for those students who have never experienced working with hair or hairpieces. This service does not require a California license.

Lecture 1 hour, laboratory 2 hours.

## 102—WIG AND HAIRPIECE SERVICING II 2 UNITS

*Prerequisite:* A Cosmetology License, or be a senior cosmetology student in high school, or have one thousand hours of cosmetology training.

Emphasizes skill for achieving satisfactory results in individual wig styling, coloring, conditioning and servicing. Develops important personal qualifications, stresses



how wigs are made, fitted and altered as well as how to recognize types of wigs and hairpieces available. Outlines the importance of knowledge of wigs in regard to buying and selling them and prepares the student on the proper care and handling of wigs and hairpieces.

Lecture 1 hour, laboratory 2 hours.

### 111—ELEMENTS OF COSMETOLOGY (SEE NOTE)

*Prerequisite:* High school graduation or age 18 with 10th grade education.

*Note:* Students are granted one unit of credit for each 34 hours of lecture and laboratory attendance each semester for a maximum of 16 units and a total of 48 units for the entire 1,600 hours as required by the Board of Cosmetology for licensing as a Cosmetologist. The student must enroll in a minimum of 25 hours per week for 12 units and a maximum of 40 hours per week for 16 units. Late enrollment is allowed. Students will be granted credit as earned at the rate of 34 hours of attendance equaling one unit.

A study covering basic sciences of the hair, skin, scalp, sanitation, sterilization and hygiene recognition of conditions of the skin, scalp and hair. Preparation training in theory and practical operation.

Practical application of skills in shampooing, curl construction, basic hair cutting, comb-out procedures, responsibilities as a receptionist, ethics of the profession, as well as personal hygiene.

Lecture and laboratory 25 hours.

### 112—BASIC COSMETOLOGY (SEE NOTE)

*Prerequisite:* Cosmetology 111. Students transferring from another state approved school may enter Cosmetology 112 providing 400 hours have been completed.

*Note:* Students are granted one unit of credit for each 34 hours of lecture and laboratory attendance each semester for a maximum of 16 units and a total of 48 units for the entire 1,600 hours as required by the Board of Cosmetology for licensing as a Cosmetologist. The student must enroll in a minimum of 25 hours per week for 12 units and a maximum of 40 hours per week for 16 units. Late enrollment is allowed. Students will be granted credit as earned at the rate of 34 hours of attendance equaling one unit.

Theory and application of permanent waving, all phases

of hair coloring. Modern methods of hair shaping and hair styling shall be practiced on models. This course also offers practice on fellow students.

Lecture and laboratory 25 hours.

### 113—INTERMEDIATE COSMETOLOGY (SEE NOTE)

*Prerequisite:* Cosmetology 112. Students transferring from another state approved school may enter Cosmetology 113 providing 800 hours have been completed.

*Note:* Students are granted one unit of credit for each 34 hours of lecture and laboratory attendance each semester for a maximum of 16 units and a total of 48 units for the entire 1600 hours as required by the Board of Cosmetology for licensing as a Cosmetologist. The student must enroll in a minimum of 25 hours per week for 12 units and a maximum of 40 hours per week for 16 units. Late enrollment is allowed. Students will be granted credit as earned at the rate of 34 hours of attendance equaling one unit.

A review of all requirements as set forth by the State Board of Cosmetology. Instruction in the science of permanent waving, hair coloring, and creating a hair style with further course of study in electrical facial, and electrical scalp treatments.

Lecture and laboratory 25 hours.

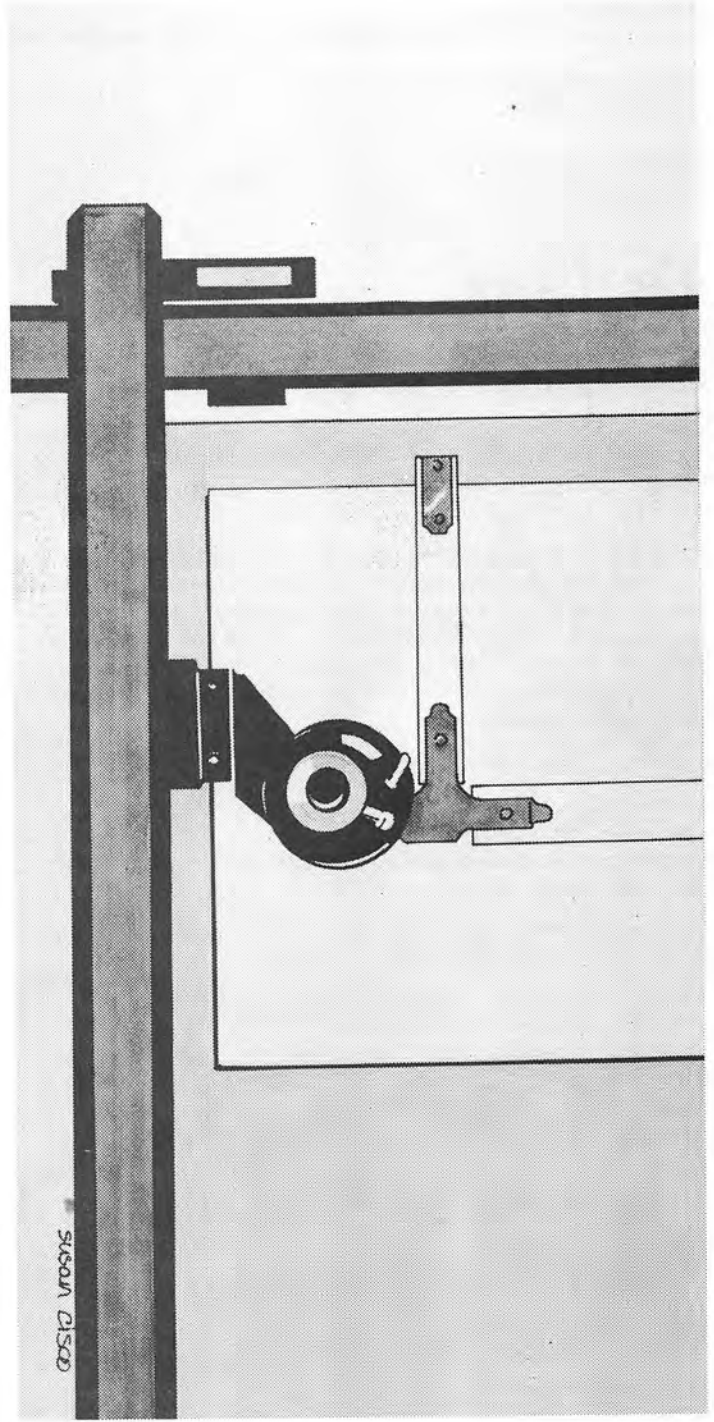
### 114—ADVANCED COSMETOLOGY (SEE NOTE)

*Prerequisite:* Cosmetology 113. Students transferring from another state approved school may enter Cosmetology 114 providing 1,200 hours have been completed.

*Note:* Students are granted one unit of credit for each 34 hours of lecture and laboratory attendance each semester for a maximum of 16 units and a total of 48 units for the entire 1,600 hours as required by the Board of Cosmetology for licensing as a Cosmetologist. The student must enroll in a minimum of 25 hours per week for 12 units and a maximum of 40 hours per week for 16 units. Late enrollment is allowed. Students will be granted credit as earned at the rate of 34 hours of attendance equaling one unit.

Advanced methods of all phases of cosmetology as performed in a salon, corrective hair coloring, salon management, and preparation for the State Board Examination.

Lecture and laboratory 25 hours.



СІСІО ІІОСІО

**DATA PROCESSING**

See Business 122

**DENTAL MATERIALS**

See Art 151

# Drafting

**129—BLUEPRINT READING****2 UNITS***Prerequisite:* None.

*Note:* A recommended course for non-drafting majors. No credit is allowed for this course to students having credit in Engineering 101, 103, 104; Drafting 131, 132, 133, 134; Graphics 165, 166, 167, 168.

A study of the fundamentals of orthographic drawing to develop the student's ability to understand and utilize the information presented on a blueprint. Such areas as size dimensional systems, tolerancing, S1 metrics, value engineering and related industrial terminology are presented to strengthen the student's ability to interpret an engineering drawing.

Lecture 1 hour, laboratory 2 hours.

**131—TECHNICAL DRAFTING****7 UNITS***Prerequisite:* Technical Education 143 or Technical Education 144 taken concurrently.

*Note:* Students must register for the full number of hours for which the course is scheduled.

A basic course in drafting consisting of the techniques used in the use of instruments for technical drawing, orthographic projection and visualizing in three dimensions, revolutions, sections, primary and secondary auxiliary views, isometric drawing, types of fasteners, springs, oblique drawing, freehand drawing and sketching.

Lecture 6 hours, laboratory 6 hours.

**132—INTERMEDIATE TECHNICAL  
DRAFTING AND MACHINE DETAILING****7 UNITS***Prerequisite:* Drafting 131 or Graphics 165. Technical Education 144 taken concurrently, or a more advanced mathematics course.

*Note:* Students must register for the full number of hours for which the course is scheduled.

An intermediate course in the application of drafting techniques and practices. Special emphasis on industrial and military specification dimensioning practices in drawing detail and assembly drawings in accordance to professional standards.

Application of tolerancing, metal fits between parts, mating surfaces which will be machined for drawing production detail drawings. Preparing production casting, forging, gear, and cam drawings of professional quality to meet military specifications and production processes and materials. Detailing structural steel drawings and attaching by rivets and welding.

Lecture 3 hours, laboratory 9 hours.

**133—ELECTRICAL DRAWING AND  
ELECTRONIC PACKAGING****7 UNITS***Prerequisite:* Drafting 131, Technical Education 145, or a more advanced physics course, taken concurrently.

*Note:* Students must register for the full number of hours for which the course is scheduled.

Electronic and electrical symbols, wiring or connection and block diagrams, electron tube and transistor symbols, electronic schematic diagrams, electric power drafting, and electronic package drawing.

Lecture 3 hours, laboratory 9 hours.

**134—ADVANCED DRAFTING IN  
MACHINE DESIGN****7 UNITS***Prerequisite:* Drafting 133 and concurrent enrollment in one of the following: Metals 115, Welding 117, Materials and Processes 146.

*Note:* Students must register for the full number of hours for which the course is scheduled.

Strength of materials, mechanics, and statics as related to machine design in equilibrium, centroid, moment of an area, simple stress and strain, reactions, statically determinate and indeterminate beams, torsion, bending combined with tension, compression, and repeated stress.

Machine design as applied to type of materials, strength requirements, shape configuration, and general design

considerations. Compound stresses, bolts and screws, connectors, shafting and keys, pulleys, sprockets, friction drives, bevel gears, bearings, and machine design project.

Lecture 5 hours, laboratory 7 hours.

### 136—BASIC TECHNICAL DRAFTING 3 UNITS

*Prerequisite:* None.

Not a basic transfer course for students who hope to continue in an engineering course in a four-year college. A basic course in drafting techniques for instruments, lettering, and geometry.

This class is offered in the Extended Day Program only.

Laboratory 6 hours.

### 137—TECHNICAL DRAFTING 3 UNITS

*Prerequisite:* Drafting 136.

Primarily designed for students already employed in related industry and for students planning to start working in related fields in the near future. Not a basic transfer course for students who hope to continue in an engineering course in a four-year college.

This class is offered in the Extended Day Program only.

Lecture 3 hours, laboratory 3 hours.

### 138—TECHNICAL DRAFTING 3 UNITS

*Prerequisite:* Drafting 137.

Primarily designed for students already employed in related industry and for students planning to start working in related fields in the near future. Not a basic transfer course for students who hope to continue in an engineering course in the four-year college.

This class is offered in the Extended Day Program only.

Lecture 3 hours, laboratory 3 hours.

### 139—ADVANCED TECHNICAL DRAFTING 3 UNITS

*Prerequisite:* Drafting 138.

Primarily designed for students already employed in related industry and for students planning to start working in related fields in the near future. Not a basic transfer course for students who hope to continue in an

engineering course in a four-year college.

This class is offered in the Extended Day Program only.

Lecture 3 hours, laboratory 3 hours.

## Economics

### 101—PRINCIPLES OF MICROECONOMICS 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year high school algebra or Mathematics 141.

A fundamental course in economic analysis including methodology, the history of economic thought and mathematical techniques. Price theory including consumer behavior (utility and demand), production (cost and supply), partial equilibrium, tax incidence, and theory of the firm (profit maximization under pure competition) are examined. Other selected topics may include imperfect competition, monopoly, agriculture, labor, factor pricing, international trade and comparative advantage, business organization, accounting and the stock market.

Lecture 3 hours.

### 102—PRINCIPLES OF MACROECONOMICS 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year high school algebra or Mathematics 141.

*Note:* It is recommended that Economics 101 be taken prior to Economics 102.

A fundamental course including an introduction to economic history, comparative economic systems, and statistical analysis. Stress is placed on National Income theory, consumption, investment, inflation, unemployment, and fiscal and monetary policy. Other selected topics may include money and banking, national debt, international balance of payments, growth and development, and urban problems.

Lecture 3 hours.



**105—THE AMERICAN ECONOMY 3 UNITS**

*Prerequisite:* None.

*Note:* No credit will be granted for Economics 105 if Economics 101 and Economics 102 have been taken previously.

An introduction to the American economy. A foundation for understanding it and the problems that it faces. A description of the important institutions of our system and an analytical approach to the understanding of the basic economic problems.

Lecture 3 hours.

**107—PROBABILITY AND STATISTICS 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year of high school algebra or Mathematics 141 or equivalent.

An introduction to the areas of probability and statistics. A consideration of the methods of gathering, classifying, and analyzing statistical data.

Lecture 3 hours.

**111—ECONOMIC HISTORY OF THE UNITED STATES 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A history of economic development of the United States from its settlement to the present. Emphasis is placed on the growth and development of institutions and movements in our modern society. This course meets the California State requirement in American History.

Lecture 3 hours.

**EDUCATION**

See Social Science 101

**ELECTRONICS**

See Television Repair

# Electronics

**125—LOGIC AND SWITCHING CIRCUITS 4 UNITS**

*Prerequisite:* Electronics 172

Introduction to digital systems, number systems, Boolean Algebra, logic techniques, logic gates, multivibrator circuits, counters, multivibrators, programming and codes. Construction and development of TTL logic, and COSMOS circuitry using IC chips.

Lecture 3 hours, laboratory 3 hours.

**171—BASIC ELECTRONICS I 6 UNITS**

*Prerequisite:* Technical Education 143 or Technical Education 144 or a more advanced mathematics course. (May be taken concurrently.)

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Study of the DC and AC circuit principles and characteristics. Study and application of network theorems for circuit analysis. Study of magnetism and magnetic units. Theory and application of volt-ohm meters.

Fundamental skills are developed in shop practice, soldering techniques, wiring practice, schematic reading and circuit tracing, use of meters, oscilloscopes, and other test equipment. Practice in layout and construction of simple electronic circuits.

Lecture 5 hours, laboratory 4 hours.

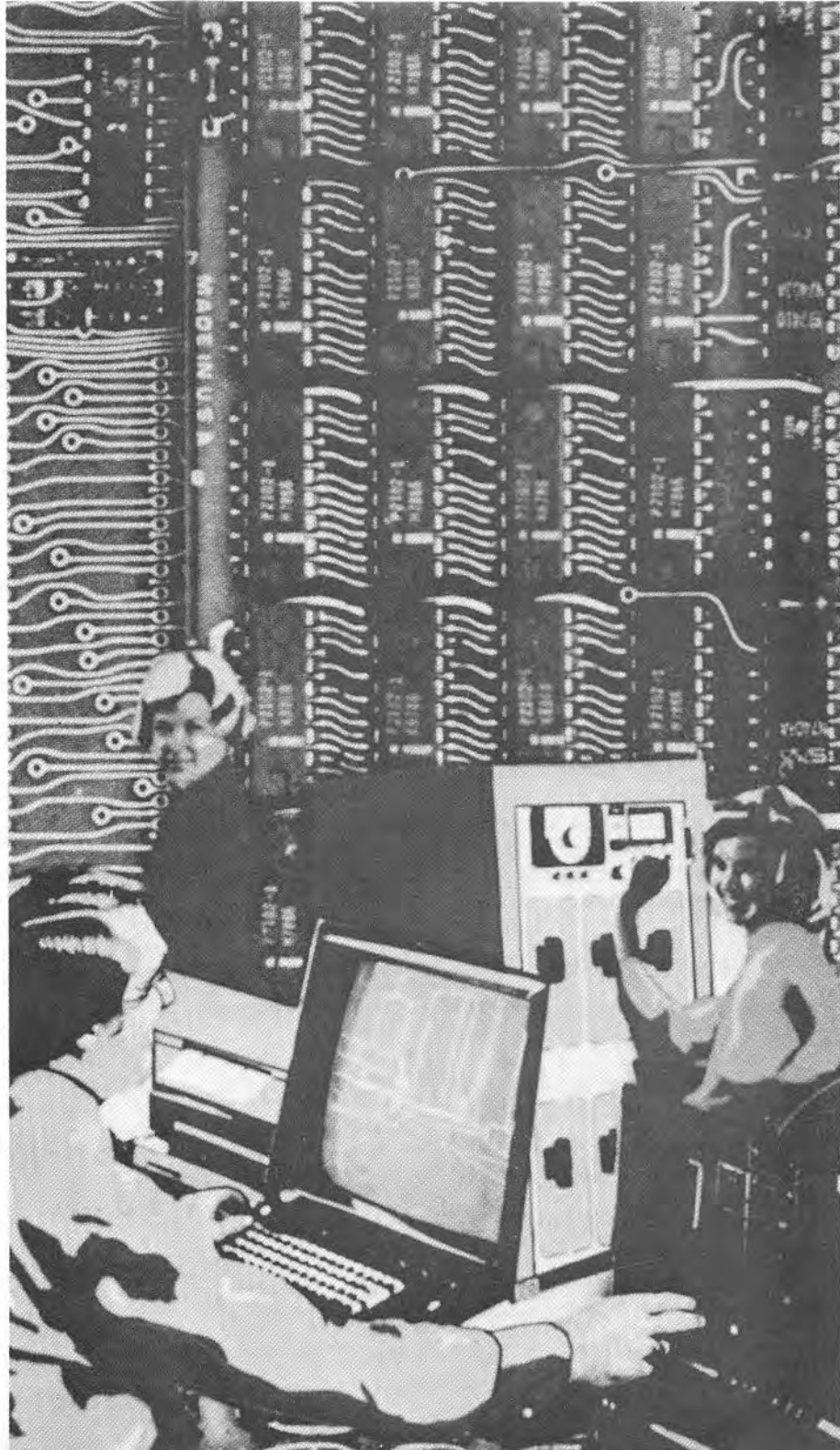
**172—BASIC ELECTRONICS II 6 UNITS**

*Prerequisite:* Electronics 171 and concurrent enrollment in Technical Education 144 or a more advanced mathematics course.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Analysis of DC and AC circuits. Principles of vacuum tubes, vacuum tube amplifiers, power supplies, and filters. Laboratory experiments with vacuum tubes, amplifiers and power supplies. Use of signal generators, oscilloscopes and other test instruments.

Lecture 5 hours, laboratory 4 hours.



**173—ADVANCED ELECTRONICS 6 UNITS**

*Prerequisite:* Electronics 172, and concurrent enrollment in one of the following: Metals 115, Drafting 129, Technical Education 145 or Materials and Processes 146.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Theory of transistors. Analysis of linear transistor circuits. Amplifiers and oscillators using transistors and vacuum tubes. Regulated power supplies. Laboratory experiments for checking transistor parameters and behavior.

Lecture 5 hours, laboratory 4 hours.

**174—ADVANCED ELECTRONICS 6 UNITS**

*Prerequisite:* Electronics 173, and concurrent enrollment in one of the following: Metals 115, Drafting 129, Technical Education 145 or Materials and Processes 146.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Transmitter theory, antennas and transmission lines, test instruments, integrator and differentiator circuits, and computer logic circuits, superheterodyne theory. Laboratory includes troubleshooting, test instrument use and maintenance, and experiments with special circuits.

Lecture 5 hours, laboratory 4 hours.

**175—BASIC ELECTRONIC THEORY I 3 UNITS**

*Prerequisite:* None.

*Note:* Reduced credit if Electronics 171 is taken prior to or subsequent to Electronics 175-176.

A course in the basic principles of electricity and electronics for non-electronics majors. It is designed to provide the student with a sound understanding of the basic principles of electronic circuits and their applications.

Ohm's Law, DC and AC circuit principles and characteristics, magnetism and magnetic units, and meters.

Lecture 4 hours.

**176—BASIC ELECTRONIC THEORY II 3 UNITS**

*Prerequisite:* Electronics 175.

*Note:* Reduced credit if Electronics 171 is taken prior to or subsequent to Electronics 175-176.

Continuation of Electronics 175. Principles of vacuum tubes, AF and RF vacuum tube amplifiers, power supplies, oscillators, and introduction to transistors.

Lecture 4 hours.

**177—BASIC ELECTRONICS I 3 UNITS**

*Prerequisite:* Satisfactory score on Mathematics Proficiency Test or credit in Mathematics 150.

A basic course covering theory and mathematical applications of DC circuits, Ohm's Law, series circuits, parallel circuits, electrical power, Kirchhoff's Laws, and introduction to AC. Laboratory meetings are included.

This class is offered in the Extended Day Program only.

Lecture 5 hours, laboratory 1 hour.

**178—BASIC ELECTRONICS II 3 UNITS**

*Prerequisite:* Electronics 177 or equivalent.

*Note:* Students having had Electronics 171 will receive no credit for Electronics 178.

A basic electronics course covering theory and mathematical applications of magnetism and electromagnetic induction, alternating current, inductance and inductive reactance, AC circuits, series and parallel resonance, and filters. Laboratory meetings are included.

This class is offered in the Extended Day Program only.

Lecture 5 hours, laboratory 1 hour.

## Emergency Medical Technology

**101—EMERGENCY MEDICAL TECHNICIAN 6 UNITS**

*Prerequisite:* Acceptable Pre-registration Examination scores.

Acquisition of basic knowledge, skills, and attitudes necessary to effectively respond to emergency situations that threaten the lives of individuals.

Lecture-laboratory 6 hours, 10 clinical hours.

## Engineering

### 101—ENGINEERING DRAWING 3 UNITS

*Prerequisite:* None.

Training in the manipulation of instruments, lettering, orthographic projection, sketching, drawing auxiliary and pictorial views, sectioning and dimensioning.

Lecture 2 hours, laboratory 4 hours.

### 103—DESCRIPTIVE GEOMETRY 3 UNITS

*Prerequisite:* Engineering 101 or Drafting 131 or Graphics 165 or Architecture 101, or one year of mechanical drawing in high school.

*Note:* This course may not be taken for credit by students who have completed Architecture 103.

A valuable engineering tool which facilitates the solution of engineering problems graphically. A study of lines and planes in space. The representation of surfaces, solids, interferences, and intersections. Excellent training in visualization and interpretation of engineering drawings.

Lecture and laboratory 6 hours.

### 104—ADVANCED ENGINEERING DRAWING 3 UNITS

*Prerequisite:* Engineering 101 or Drafting 131 or one year of mechanical drawing in high school.

*Note:* Engineering students should take Engineering 103 prior to Engineering 104.

Delineation of simple machine parts including problems in visualization, dimensioning and tolerances, screw threads and fasteners, freehand sketching, pictorial drawing, piping, welding, gears and cams, assembly and working drawings. Special emphasis is laid upon the interpretation and production of drawings which

conform to standard practice.

Lecture and laboratory 6 hours.

### 110—STATICS 3 UNITS

*Prerequisite:* Physics 101-102 and Mathematics 105. (Physics 102 and Mathematics 105 may be taken concurrently.)

Force systems and equilibrium conditions as applied to mechanical engineering problems. The course includes graphical methods and the use of diagrams as an aid to algebraic solutions. Structures, distributed forces, friction, virtual work, funicular polygons, moments of inertia, shear and bending moment diagrams, and Maxwell diagrams are included in the course. Vector analytical methods using the dot and cross products are stressed.

Lecture 3 hours.

### 141—ENGINEERING COMPUTATIONS 1 UNIT

*Prerequisite:* Mathematics 102 or trigonometry in high school.

*Note:* For engineering and science majors. This course may not be taken for credit by students who have completed Engineering 142.

Lectures and instruction in the use of the slide rule. Mannheim and log-log trigonometric slide rules will be explained and used in computation. Estimating, checking, and solving problems in computation will be required of the student.

Lecture 2 hours.

### 142—SLIDE RULE 1 UNIT

*Prerequisite:* None.

*Note:* For non-science majors. This course may not be taken for credit by students who have completed Engineering 141.

Lectures and instruction in the use of the slide rule. Estimating, checking, and solving problems in computation will be required of the student.

Lecture 2 hours. (9 weeks)



# English

## 101—FRESHMAN ENGLISH 3 UNITS

*Prerequisite:* A satisfactory score on the English Placement Examination; or a grade of "B" or better in English 191; or a grade of "C" or better in English 120.

A foundation course in writing and reading, required of those students intending to transfer to a university. English 101 provides instruction and practice in expository writing, analysis and criticism of selected prose models.

Lecture 3 hours.

## 102—FRESHMAN ENGLISH 3 UNITS

*Prerequisite:* English 101.

An introduction to literature which includes practice in writing, related to the study and evaluation of types of imaginative literature, including the short story, novel, drama, and poetry.

Lecture 3 hours.

## 103—CREATIVE WRITING WORKSHOP 3 UNITS

*Prerequisite:* None.

*Note:* This course may be repeated for a total of six units.

An introduction to the theory and practice of creative verbal expression in the major imaginative forms of prose and fiction and non-fiction, poetry, and drama. Emphasis is placed upon specific techniques used to communicate personal ideas and feelings. Students may concentrate on *one* of the major writing forms.

Lecture and discussion 3 hours.

## 105—SURVEY OF ENGLISH LITERATURE 3 UNITS FROM THE ANGLO-SAXON PERIOD TO 1780

*Prerequisite:* English 101.

*Note:* Required of all English majors.

A survey course covering the development of English literature from the beginning to 1780 and emphasizing the development of thought in relation to historical and social backgrounds.

Lecture 3 hours.

## 106—SURVEY OF ENGLISH LITERATURE 3 UNITS FROM 1780 TO THE PRESENT TIME

*Prerequisite:* English 101.

*Note:* Required of all English majors. English 106 may be taken without English 105.

A survey course covering the development of English literature from 1780 to the present time. English 106 continues to study the development of thought as an expression of our cultural heritage.

Lecture 3 hours.

## 109—INTRODUCTION TO LITERATURE 3 UNITS OF THE WESTERN WORLD

*Prerequisite:* English 101.

A survey of the literature of the Western World from ancient times (including selections from the Old and New Testaments) to the Renaissance. Emphasis upon the Greek and Roman classics. Includes a study of Classical and Norse mythology.

Lecture 3 hours.

## 110—INTRODUCTION TO LITERATURE 3 UNITS OF THE WESTERN WORLD

*Prerequisite:* English 101.

A survey of the literature of the Western World from the Renaissance to the present time. Emphasis upon cultural history and the history of important ideas reflected in the literary works.

Lecture 3 hours.

## 115—CLASSIC THEATRE — THE 3 UNITS HUMANITIES IN DRAMA — TV only

*Prerequisite:* None.

A study of drama and literature by European authors of the 17th, 18th, and 19th centuries to be developed around a selection of 13 televised plays augmented by textual materials and readings. Thirteen plays will be broadcast by KCET—TV, Channel 28 in weekly sequence over a period of 13 weeks. Filmed segments will be integrated with anthology, book of critical reading, and workbook-study guide. Basic intent of the course is to aid in understanding historical-social backgrounds of the periods

represented; to aid in analyzing form and literary importance and an enhancement to enjoying the plays; and to develop learning techniques of interpretation and criticism.

A Television Series of thirteen plays in weekly sequence over a period of thirteen weeks.

### **120—COMPOSITION AND READING 3 UNITS**

*Prerequisite:* A satisfactory score on the English Placement Examination, or a grade of "B" or better in English 131, or a grade of "C" or better in English 191.

*Note:* Allows no credit to those who have completed English 101.

English 120 is designed for the student who is aiming toward an Associate in Arts Degree or who needs additional instruction in the techniques of writing before attempting English 101. English 120 will provide practice in the mechanics of writing, in the organization of a paragraph and essay, and in the analysis of appropriate written models dealing with important contemporary ideas. Student-Teacher interviews will be stressed in an attempt to isolate the individual writing problems of each student.

Lecture 3 hours.

### **121—READING LITERATURE 3 UNITS**

*Prerequisite:* None.

An introductory study of the major forms of creative literature; the short story, the novel, the drama, the poetry, drawn from the best modern authors. The course is planned to develop a greater appreciation and understanding of the literature of our time with special emphasis on the literary expression of contemporary issues. It is designed for the non-English major and for the student planning to earn an Associate in Arts Degree.

Lecture 3 hours.

### **122—READINGS IN EARLY AMERICAN LITERATURE 3 UNITS**

*Prerequisite:* None.

*Note:* Not recommended for English majors.

Designed to give a generous sample of the works of

major American writers from Colonial days to the Civil War, and to relate these works to the history of ideas. Important historical movements are traced so that students may gain increased understanding of America's heritage.

Lecture 3 hours.

### **123—MODERN AMERICAN LITERATURE 3 UNITS**

*Prerequisite:* None.

*Note:* Not recommended for English majors.

Designed to give a generous sample of the works of major American writers from the Civil War to the present day, the course is intended to enrich the student's understanding of selected works. The important literary movements with their sociological implications are traced so that the student may have background for critical judgement of contemporary American writing.

Lecture 3 hours.

### **125—SHAKESPEARE 2 UNITS**

*Prerequisite:* None.

*Note:* Not recommended for English majors.

An introduction to the works of Shakespeare. The course is focused on a close study of Shakespeare's major plays. It also provides a background and insights into the Elizabethan world so that the student may more fully understand and appreciate Shakespeare's writings.

Lecture 2 hours.

### **126—THE MODERN DRAMA 2 UNITS**

*Prerequisite:* None.

A study of modern plays and playwrights. Representative works of European and American dramatists are read with special attention given the literary and sociological importance of plays written since 1870. The aim of the course is to enable the student to make an intelligent evaluation of contemporary drama.

Lecture 2 hours.

**127—CHILDREN'S LITERATURE 3 UNITS**  
(Formerly 15)

*Prerequisite:* None.

English 127 is a survey of the literature suitable for children of different age levels. The student is taught to develop standards by which to judge the merits of the literature that is available for children.

Lecture 3 hours.

**128—BIBLE AS LITERATURE 3 UNITS**

*Prerequisite:* None.

English 128 consists of a survey of the major literary genres in the Bible and their most representative forms. Attention will be given to selected prose and verse forms, with a stress on recurrent themes, images, and symbols.

Lecture 3 hours.

**129—FOLK POETRY AND ROCK MUSIC 3 UNITS**

*Prerequisite:* None

This course consists of listening to, studying, and analyzing the music and lyrics of Rock music. The course will take an historical perspective beginning with the Greek lyric and tracing the development of the lyric through the Renaissance and into its rebirth in the 20th century. Attention will be paid to Gregorian chants, the development of polyphonic music, the splitting of music and poetry into separate art forms, the tendency for those art forms to become increasingly elite, thus exempting the common man from participation and appreciation of the forms, and the reintegration of the two traditions in Rock. The approach will be comparative; the goal will be to see how music and lyrics communicate human experiences and insights.

Lecture 3 hours.

**131—INDUSTRIAL ENGLISH 3 UNITS**

*Prerequisite:* None.

*Note:* Only one unit of credit will be allowed to those students who have completed English 191 and no credit to those who have completed English 120, or Business 145. If a grade earned in English 131 is "B" or higher, the course will be acceptable in lieu of English 191 as a

prerequisite to English 120, but not as a prerequisite to English 101 regardless of the grade earned.

A course designed especially for students taking technical education courses. It stresses training in reading, listening, and writing, including the related skills of grammar usage, sentence and paragraph structure, and spelling. A major emphasis in writing will be placed on types of business correspondence.

Lecture 3 hours, laboratory 1 hour.

**132—INDUSTRIAL ENGLISH 3 UNITS**

*Prerequisite:* None.

A course designed for students taking technical education courses. It includes training in oral communications with emphasis being placed on evaluation of various forms of public utterances, such as political speeches and radio and television editorial comment or other non-friction presentations. It also includes reading and analysis of newspaper materials, short fictional works and poetry. To accomplish this, the student will study briefly the nature, history, and function of language as well as the basic problems of semantics and word usage.

Lecture 3 hours.

**180—ENGLISH FOR THE PARAPROFESSIONAL 3 UNITS**

*Prerequisite:* English 101 or a grade of "C" or better in English 120.

English 180 is designed to provide students in the Human Services Aide Program with the skills required for tutoring in English on a paraprofessional level. In addition to training in the fundamentals of reading, writing, and study skills, the student will be introduced to the various methods of instruction and multi-media devices that will be encountered in the field.

Lecture 3 hours.

**190—BASIC READING TECHNIQUES 2 UNITS**

*Prerequisite:* None.

*Note:* No credit will be given to those students who have completed English 101 or English 120.

A course in reading improvement for the student with

below average reading skills. Emphasis is on improvement of word recognition, vocabulary, and comprehension. The flashmeter and controlled reader are used with relatively simple materials. Book reviews and summaries are assigned.

**191—FUNDAMENTALS OF ENGLISH 2 UNITS**

*Prerequisite:* None.

*Note:* This course should be elected by those who fail to make a satisfactory score on the English Placement Examination. No credit will be given to those students who have completed English 101, 120, 131, or Business 145.

A course combining auto-instructional techniques, programmed learning, and lectures to improve grammar, punctuation, spelling, the composition of paragraphs, study techniques, reading skills, and listening skills.

Lecture and laboratory 4 hours.

**192—ADVANCED READING TECHNIQUES 2 UNITS**

*Prerequisite:* A satisfactory score on the English Placement Examination or a grade of "C" or better in either English 120 or English 190.

A course planned to help the student with average or better vocabulary develop the skills required for rapid, effective reading of both pleasure and study materials. Emphasis is on flexible rates of reading. Special clinical methods and materials are applied, including the use of the flashmeter and the controlled reader.

Lecture and laboratory 4 hours.

**193—ENGLISH AS A SECOND LANGUAGE 4 UNITS**

*Prerequisite:* Any student whose native tongue is not English.

*Note:* A grade of "B" or better in English 193 will enable the student to enroll in English 120. A grade of "C" will enable students to enroll in English 191.

English 193 is designed to help students of English as a Second Language develop their abilities in written and oral communication to a performance level which will enable them to successfully complete subsequent college courses. Emphasis is on the mechanics of writing, paragraph development, listening skills, and oral com-

munication.

Lecture 4 hours, laboratory 1 hour.

**198—READING FICTION 2 UNITS**

*Prerequisite:* None.

An introduction to fiction designed for the non-English major. It seeks to foster an appreciation, understanding, and evaluation of the modern short story and novel by the use of tools of critical analysis.

Lecture 2 hours

**199—BASIC COMMUNICATIONS 6 UNITS**

*Prerequisite:* None.

A unified course in reading, listening, writing, and speaking. It should be elected by students having deficiencies in communication skills.

Lecture 5 hours—section meetings, laboratory 3 hours — Learning Resource Center.

## Family and Consumer Studies

**135—PRE-SCHOOL CHILD 3 UNITS**

*Prerequisite:* None.

The growth and development of the child from conception through age five. The meaning and value of play, significance of creative activities, interpretation of child-adult relationships, standards for wholesome routines of management and discipline. Nursery schools and pre-school classes used as laboratory for course.

Lecture 3 hours.

**136—THE CHILD FROM FIVE TO TWELVE 3 UNITS**

*Prerequisite:* Family and Consumer Studies 135.

Study of the growth and development of the school-age child. Basic attitudes toward learning and toward home and family life. Guidance in everyday living with children.

Lecture 3 hours.

**138—CHILD HEALTH 3 UNITS**

*Prerequisite:* None.

Family and Consumer Studies 138 seeks to analyze the responsibilities of the home, the school, and the community for health protection. The characteristics of good health and the recognition of the symptoms of communicable diseases are examined. The habits and attitudes essential for physical and mental health of teachers, parents and children are studied.

Lecture 3 hours.

**139—HOME MANAGEMENT 3 UNITS  
(Consumer and Homemaking Education)**

*Prerequisite:* None.

Consideration of essentials for the homemaker and consumer. Lectures, reports and discussions giving primary emphasis to the consumer aspects of management of finances, resources and services, human development, housing, food and nutrition, clothing and textiles.

Lecture 3 hours.

**140—PRINCIPLES AND PRACTICES IN 3 UNITS  
PRE-SCHOOL EDUCATION**

*Prerequisite:* Family and Consumer Studies 135.

Family and Consumer Studies 140 includes studies of the selection and arrangement of equipment and materials for groups of young children; such as materials for art, music, science, stories, and appropriate play activities. Behavior of the pre-school child in the group situation is studied through weekly observations at nursery schools, and the role of the pre-school teacher is examined.

Lecture 3 hours.

**141—FIELD PRACTICE IN A 3 UNITS  
PRE-SCHOOL PROGRAM**

*Prerequisite:* Family and Consumer Studies 135, and Family and Consumer Studies 140, verification of chest X-ray.

*Note:* This course may be taken for a maximum of nine units.

Family and Consumer Studies 141 enables the student to participate in the entire routine of a child develop-

ment center — first as an observer and then as a teacher's aide. Questions arising from field practice experiences are discussed and research is done.

Lecture 2 hours, laboratory 3 hours.

**142—HOME, SCHOOL, AND COMMUNITY 3 UNITS  
RELATIONS**

*Prerequisite:* None.

A study of responsibilities of the home, the school, and the community to each other. The location and services of various community agencies — voluntary, private, and public including local, state, and federal are examined.

Lecture 3 hours.

**143—SUPERVISION AND 3 UNITS  
ADMINISTRATION OF NURSERY SCHOOLS**

*Prerequisite:* Family and Consumer Studies 135 and Family and Consumer Studies 141 or equivalent including teaching experience.

Role of Nursery School in meeting needs of young children and their families: organization, management, equipment and programs appropriate to developmental needs during pre-school years.

Lecture 3 hours.

**150—A TIME TO GROW—TV only 3 UNITS**

*Prerequisite:* None.

A college course in child growth and development. Special attention to children's physical, cognitive, and social-emotional development. Presentation of some of the major points of view, research findings, and literature which have been contributed by a variety of disciplines.

45 one-half hour programs.

**152—MUSIC FOR YOUNG CHILDREN 3 UNITS**

*Prerequisite:* None.

Family and Consumer Studies 152 explores musical experiences appropriate to the developmental level of the infant, the pre-school child, the elementary school child, and the exceptional child.

Lecture 3 hours.

**FASHION DESIGN**

See Home Arts 105, 117, 118, 119, 120, 122, 123, 124.

# Fire Science

Classes in Fire Science are offered in the Extended Day program for students interested in preparing for careers in fire prevention and fire fighting. Since the course also provides in-service and upgrading instruction for fire fighting personnel, identical classes are scheduled on consecutive evenings to provide for those students who must change shifts each week.

## 101—INTRODUCTION TO FIRE PROTECTION 3 UNITS

*Prerequisite:* None.

Philosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of Federal, State, and County, and private fire protection agencies; and survey of professional fire protection career opportunities.

Lecture 3 hours.

## 102—INTRODUCTION TO FIRE SUPPRESSION 3 UNITS

*Prerequisite:* None.

Fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials; building design and construction; extinguishing agents; basic fire fighting tactics; and public relations.

Lecture 3 hours.

## 103—FUNDAMENTALS OF FIRE PREVENTION 3 UNITS

*Prerequisite:* Fire Science 101 or Fire Science 102 or equivalent.

Organization and function of the fire prevention organization; inspection; surveying and mapping procedures; recognition of fire hazards; engineering a solution to the hazard; enforcement of the solution; public relations as

affected by fire prevention.

Lecture 3 hours.

## 104—FIRE FIGHTING TACTICS AND STRATEGY 3 UNITS

*Prerequisite:* Nine units of Fire Science or Fire Science 102 or equivalent.

Review of fire chemistry, equipment and man power; basic fire fighting tactics and strategy; methods of attack; preplanning fire problems.

Lecture 3 hours.

## 105—FIRE PROTECTION EQUIPMENT AND SYSTEMS 3 UNITS

*Prerequisite:* Nine units of Fire Science or equivalent.

Portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; and fire alarm and detection systems.

Lecture 3 hours.

## 106—RELATED CODES AND ORDINANCES 3 UNITS

*Prerequisite:* Fire Science 103 or equivalent.

Familiarization with national, state, and local laws and ordinances which influence the field of fire prevention.

Lecture 3 hours.

## 107—FIRE HYDRAULICS 3 UNITS

*Prerequisite:* Nine units of Fire Science or equivalent.

Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriters' requirements for pumps.

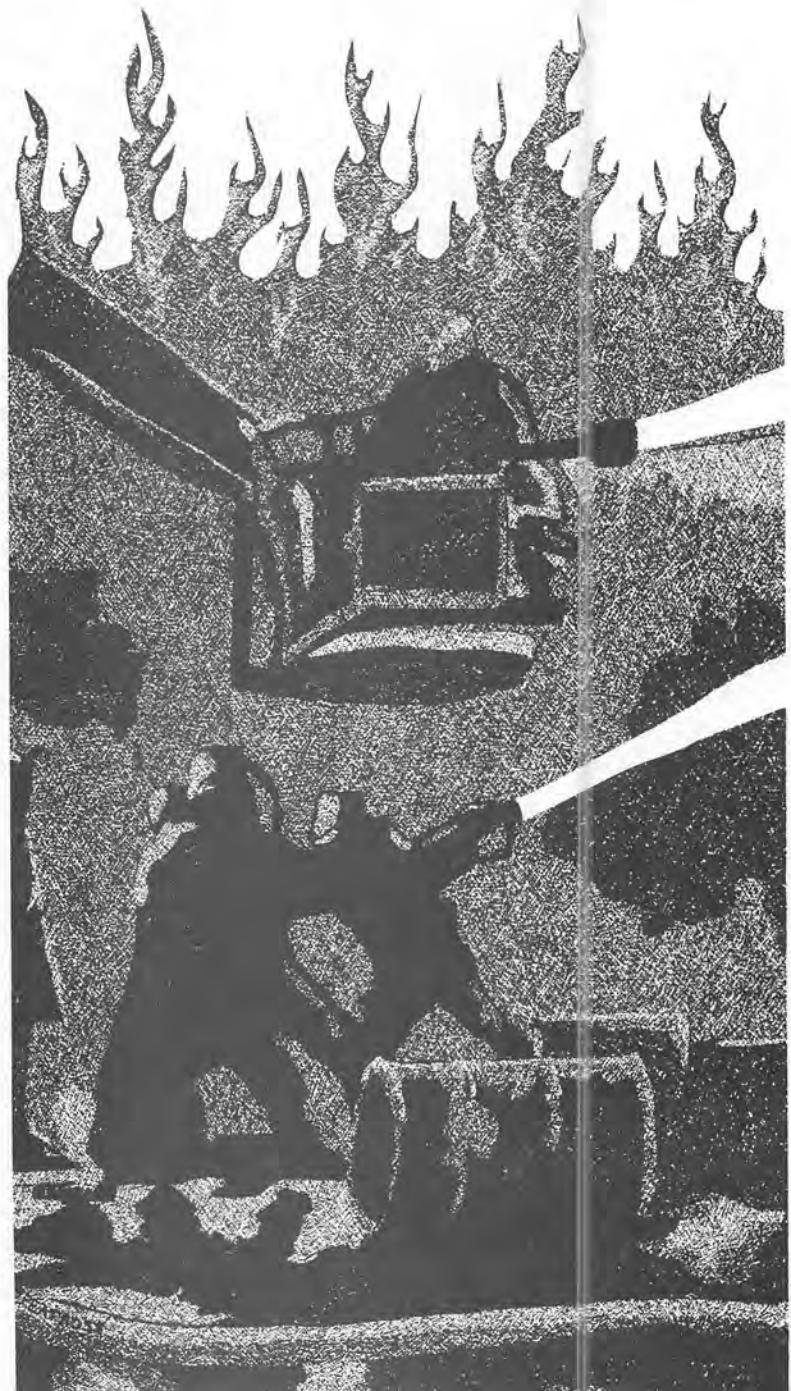
Lecture 3 hours.

## 108—FIRE APPARATUS AND EQUIPMENT 3 UNITS

*Prerequisite:* Three units of Fire Science or equivalent.

Driving laws, driving technique, construction, and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.

Lecture 3 hours.



**109—RESCUE PRACTICES 3 UNITS**

*Prerequisite:* Three units of Fire Science or equivalent.

Rescue practices, the human body, emergency care of victims, childbirth, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards, rescue problems and techniques.

Lecture 3 hours.

**110—FIRE COMPANY ORGANIZATION AND PROCEDURE 3 UNITS**

*Prerequisite:* None.

Review of fire department organization; fire company organization; the company officer; personnel administration; communications; fire equipment; maintenance; training; fire prevention; fire fighting; company fire fighting capability; records and reports.

Lecture 3 hours.

**111—FIRE INVESTIGATION 3 UNITS**

*Prerequisite:* Fire Science 101 or Fire Science 102 or equivalent.

Introduction to arson and incendiarism, arson laws, and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses. Procedures in handling juveniles; court procedure and giving court testimony.

Lecture 3 hours.

**112—WILDLAND FIRE CONTROL 3 UNITS**

*Prerequisite:* Fire Science 101 or Fire Science 102 or equivalent.

Designed to provide the employed fireman or fire science major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.

Lecture 3 hours.

# Food Service

**111—BASIC QUANTITY FOOD PREPARATION 7 UNITS**

*Prerequisite:* None.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted if a vacancy in the class exists. One unit of credit will be granted for each 31 hours of attendance and satisfactory progress up to a total of 7 units. The same course may be taken as a non-credit adult education course upon payment of the usual adult education tuition fee.

Introduction and application of the principles of food cookery to quantity food production. Emphasizes high production standards, attractive service, use of proper equipment, and proper utilization of time.

Lecture and laboratory 12 hours.

**112—ADVANCED QUANTITY FOOD PREPARATION 7 UNITS**

*Prerequisite:* Food Service 111 (Food Service 111 and Food Service 112 may be taken concurrently.)

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted if a vacancy in the class exists. One unit of credit will be granted for each 31 hours of attendance and satisfactory progress up to a total of 7 units. The same course may be taken as a non-credit adult education course upon payment of the usual adult education tuition fee.

A continuation of Food Service 111. Introduction and application of the principles of food cookery to quantity food production. Emphasizes high production standards, attractive service, use of proper equipment, and proper utilization of time.

Lecture and laboratory 12 hours.

**113—SANITATION AND SAFETY CONTROL 3 UNITS**

*Prerequisite:* None.

Personal cleanliness, sanitary practices in food prepara-



## 160 FOOD SERVICE

---

tion, cause, control and investigation of illness caused by food contamination. Dishwashing procedures, sanitation of kitchen equipment, storage and refrigeration. Investigation of cleansing materials and use of proper disposal of garbage and refuse. Safety precautions and accident prevention.

Lecture 3 hours.

### 114—NUTRITION AND MENU PLANNING 3 UNITS

*Prerequisite:* None.

Principles of nutrition and their relation to quantity food preparation and menu planning. Principles of menu planning in relation to food custom, various age groups, deficiency diseases applied to quantity food production.

Lecture 3 hours.

### 115—ORIENTATION TO THE HOSPITALITY INDUSTRY 3 UNITS

*Prerequisite:* None.

This orientation class is designed to give a student the opportunity to evaluate his occupational needs in the hospitality industry through work exploratory experience. Local, private, as well as national food service, lodging, and transportation businesses will be explored.

Lecture 3 hours.

### 116—QUANTITY FOOD PURCHASING 3 UNITS

*Prerequisite:* None.

Purchasing of food for institutions with regard to season, convenience, price, kind, and principles of storage and use. Learn to prepare purchasing schedules, inventory forms, and graphs showing seasonal variations.

Lecture 3 hours.

### 117—FOOD MANAGEMENT AND COST CONTROL 3 UNITS

*Prerequisite:* None.

Analysis of menu planning procedures: inventories, costs, profit and loss sheets, menu work sheets, and

weight and measures in quality recipes. The student will learn to prepare weekly, monthly, and annual reports and determine food cost per meal, labor cost per meal, operational and total cost per meal.

Lecture 3 hours.

### 118—INTRODUCTION TO HEALTH CARE DIETARY SERVICE 3 UNITS

*Prerequisite:* None.

A study of the function of a health care facility dietary department, its policies, financial management and organization of the food service. Consideration is given to appropriate menus for all age groups, modified diets, terminology used, types of food service available, standards of tray and cafeteria service, uniform system of accounting, and general legal and operational problems.

Lecture 3 hours.

### 119—ADVANCED FOOD SERVICES PRACTICE 3 UNITS

*Prerequisite:* None.

Work experience in various types of food service operation (commercial, school, hospital) as a technical assistant under direct supervision. Advance responsibilities as a food handler and food service operator in institutional food service. Lecture and laboratory experience using total food service education to complement variety of job duties.

Lecture 3 hours, laboratory 4 hours.

### 120—ORIENTAL COOKING 3 UNITS

*Prerequisite:* None.

Food Service 120 is an introduction and application of the principles of oriental cooking. Emphasizes the use of proper equipment, cutting methods, food preparation, utilization of time, and the blending of flavors and ingredients.

Lecture 3 hours.

# Food Service Management

## 211—RESTAURANT MANAGEMENT 3 UNITS

*Prerequisite:* None.

The principles of operating a food service which are common to all types of commercial and industrial food service. Covers such areas as sales promotion, advertising, personnel, legal aspects, insurance, labor management relations.

Lecture 3 hours.

## 212—DINING ROOM SERVICES 2 UNITS

*Prerequisite:* None.

How to operate a successful food sales and service operation. Management of a dining room including good housekeeping techniques, fine food, and efficient service. Type of dining service included: waited table service (French, Russian, American, English), limited service, counter, tray service, catering, and vending.

Lecture 2 hours.

## 213—CATERING 2 UNITS

*Prerequisite:* None.

The theory and practice of operating a catering operation. Practice given in the managing of the total operation as well as some experience in specialty food preparation.

Lecture 2 hours.

## 214—BEVERAGES 3 UNITS

*Prerequisite:* None.

A study of the beverage costs, and uses in commercial restaurants and hotels. Analysis of the operation, sales, costs and profit functions are studied. Produce information and the study of the historical background of beverages are covered. The organization and operation of a bar, wine cellar, or catered services are studied.

Lecture 3 hours.

**FORTTRAN**  
See Mathematics 130.

# French

## 101—BEGINNING FRENCH 5 UNITS

*Prerequisite:* A satisfactory score on the English Placement Examination or a grade of "B" or better in English 191 or a grade of "C" or better in English 120, or equivalent.

Fundamentals of French grammar. The student is trained to pronounce correctly, to acquire a small working vocabulary which he uses in conversation and writing, and to learn to read simple French.

In addition to the regular class hours, the student must spend one hour a week in the laboratory.

Lecture 5 hours.

## 102—BEGINNING FRENCH 5 UNITS

*Prerequisite:* French 101, or two years of French in high school completed within the past two years, or equivalent.

Fundamentals of French grammar completed. Continued training in correct pronunciation. Study of more difficult elementary prose. Discussions in French with stress on correct use of verbs and idioms and efficient methods of vocabulary building.

In addition to the regular class hours, the student must spend one hour a week in the laboratory.

Lecture 5 hours.

## 103—INTERMEDIATE FRENCH 4 UNITS

*Prerequisite:* French 102, or three years of French in high school completed within the past two years, or equivalent.

Review of the fundamentals of French grammar. Stress on correct diction and efficient methods of vocabulary building. Reading of intermediate prose with stress on documentary aspects of French life, character analysis, and the study of ideas. Oral and written discussion in French.

In addition to the regular class hours, the student must spend one hour a week in the laboratory.

Lecture 4 hours.

#### 104—INTERMEDIATE FRENCH 4 UNITS

*Prerequisite:* French 103, or four years of French in high school completed within the past two years, or equivalent.

Review of the fundamentals of French grammar completed. Continued stress on correct diction and efficient methods of vocabulary building. Reading of intermediate French prose of increasing difficulty. Free conversation and composition with stress on documentary aspects of French life, character analysis, and the study of ideas.

In addition to the regular class hours, the student must spend one hour a week in the laboratory.

Lecture 4 hours.

#### 105—CONVERSATIONAL FRENCH 2 UNITS

*Prerequisite:* One year of college French, or three years of high school French, or equivalent.

Intensive practice in oral expression and comprehension of spoken French.

Lecture and participation 2 hours.

#### 106—ADVANCED CONVERSATIONAL FRENCH 2 UNITS

*Prerequisite:* French 105 or equivalent.

French 106 is designed for those students who wish to sharpen their ability to articulate in French by discussing issues that go beyond concrete descriptions into the area of intellectual ideas.

Lecture 2 hours.

#### 110—BASIC CONVERSATIONAL FRENCH I 2 UNITS

*Prerequisite:* None.

*Note:* Must be taken prior to French 102. This course may be taken as a credit-no credit course at the student's option.

An introduction to French with emphasis on developing essential skills in communication. The verbal active method used; stresses oral expression. The course also develops a working knowledge of reading and writing French.

Lecture 2 hours, laboratory 1 hour.

#### 111—BASIC CONVERSATIONAL FRENCH II 2 UNITS

*Prerequisite:* French 110 or equivalent.

*Note:* This course may be taken as a credit-no credit course at the student's option.

An introduction to French with emphasis on developing essential skills in communication. The verbal active method is used and oral expression is stressed. The course also develops a working knowledge of reading and writing French.

Lecture 2 hours, laboratory 1 hour.

#### 125—INTRODUCTION TO FRENCH LITERATURE: MIDDLE AGES THROUGH THE 18th CENTURY 3 UNITS

*Prerequisite:* French 104 or equivalent.

An introduction to early French literature through a survey of its historical development and representative works. This course, conducted exclusively in French, naturally maintains and enriches the student's language skills, but its primary purpose is to acquaint him with French literature and give him a solid basis on which to continue future reading.

Lecture 3 hours.

#### 126—INTRODUCTION TO FRENCH LITERATURE: 19th CENTURY TO PRESENT 3 UNITS

*Prerequisite:* French 104 or equivalent.

An introduction to modern French literature through a survey of its historical development and representative works (covering the 19th Century to the present). This course, conducted exclusively in French, naturally maintains and enriches the student's language skills, but its primary purpose is to acquaint him with French literature and give him a solid basis on which to continue

future reading.  
Lecture 3 hours.

# Geography

## 101—ELEMENTS OF GEOGRAPHY 3 UNITS

*Prerequisite:* None.

Study of the basic physical elements of geography, their correlation and integrated patterns of world distribution. Special attention is given to the earth and its astronomical relationships, weather, climate, and landforms.

Lecture 3 hours.

## 102—ELEMENTS OF GEOGRAPHY 3 UNITS

*Prerequisite:* None.

A systematic study of the cultural variables of mankind: population, religion, language, economic activities, settlements. Emphasis upon selected cultural problems of man's occupation.

Lecture 3 hours.

## 105—ECONOMIC GEOGRAPHY 3 UNITS

*Prerequisite:* None.

A study of the physical and cultural elements of environment and their relation to the economic activities of man. Special attention is given to the climatic regions, the soils, the products and the resultant economy.

Lecture 3 hours.

# Geology

## 101—PHYSICAL GEOLOGY 3 UNITS

*Prerequisite:* None.

*Note:* This course may not be taken for credit by students who have completed Geology 110. Second semester standing or a good high school record recommended.

A study of the physical materials and processes of the earth.

Lecture 3 hours.

## 102—ENVIRONMENTAL GEOLOGY 3 UNITS

*Prerequisite:* None.

A study of man's interactions with geologic processes and hazards, natural resource supplies and their utilization, soil depletion, water and atmospheric pollution.

Lecture 3 hours.

## 103—GEOLOGY OF CALIFORNIA 2 UNITS

*Prerequisite:* Geology 101, or 102, or 105, or 110.

The characteristics and historical development of the geologic provinces of California will be studied.

Lecture 2 hours.

## 104—FIELD GEOLOGY 2-6 UNITS

*Prerequisite:* ~~Concurrent enrollment in or~~ completion of one of the following courses with a grade of "C" or better: Geology 101, 102, 103, 105, 110; Oceanography 115; Paleontology 101; OR equivalent.

*Note:* Two units of non-overlapping field study will be offered for the fall and spring semesters; extended periods of study may be available during summer session. Weather conditions may require rescheduling of some trips. The student may earn a maximum of 6 units in Geology 104.

A field study of geologic features within several geologic provinces. Emphasis is placed on the recognition, interpretation, recording, and reporting of geologic information observed in the field. Petrologic, paleontologic, structural, and stratigraphic information will be compiled and integrated into an interpretation of the geologic history of the area investigated.

An extended period in the field may be substituted for a number of shorter field trips. Field trips will normally be taken on weekends and/or during vacation periods. The itinerary, schedule, and field area will be determined at the first class meeting (see current class schedule). The student is responsible for the cost of food and transportation; the approximate cost is \$35 for each two units of work; this figure may vary considerably depending on the location of the study area. Travel is usually by chartered bus. Field Geology requires a great deal of rigorous activity and living conditions in the field are often primitive.

Lecture and field study will be the semester equivalent of one hour of lecture and three hours of laboratory per week for each two units of credit; a typical semester of work would include 16 hours of lecture and six days in the field.

### 105—HISTORICAL EARTH SCIENCE 5 UNITS

*Prerequisite:* None.

The study of the geological and paleontologic history of the North American continent. Field trips are required and the student is charged a transportation fee.

Lecture, investigation, and demonstration 5 hours plus 4 days of field geology.

### 110—PHYSICAL EARTH SCIENCE 5 UNITS

*Prerequisite:* None.

*Note:* Students who have taken Geology 101 will receive only two units of credit for Geology 110.

The study of various geologic processes, their products, ecologic implications, and related natural resources. Field trips are required and the student is charged a transportation fee.

Lecture, investigation, and demonstration 5 hours plus 4 days of field geology.

## German

### 101—BEGINNING GERMAN 5 UNITS

*Prerequisite:* A satisfactory score on the English Placement Examination or a grade of "B" or better in English 191 or a grade of "C" or better in English 120.

Training in accurate pronunciation through daily drill. Elementary grammar and sentence structure. Reading and reproduction of simple prose.

In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

Lecture 5 hours.

### 102—BEGINNING GERMAN 5 UNITS

*Prerequisite:* German 101 or two years of German in high school completed within the past two years.

Continuation of German 101. Completion of elementary grammar essentials. Reading and interpretation of prose of increasing difficulty. Conversation, diction, and composition. Some knowledge of German tradition and character folklore. Essential geographical and historical data concerning German people.

In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

Lecture 5 hours.

### 103—INTERMEDIATE GERMAN 4 UNITS

*Prerequisite:* German 102, or three years of German in high school completed within the past two years.

A review of elementary grammar, a study of word analysis, sentence structure, idioms, and composition. Intensive reading of historical and belletristic German literature. Development in the language laboratory of vocabulary, idioms, and sentences fundamental to an active use of German in speaking.

Lecture 4 hours.

### 104—INTERMEDIATE GERMAN 4 UNITS

*Prerequisite:* German 103 or four years of German in high school completed within the past two years.

Continuation of German 103, reading and interpretation of more difficult prose. Increasing stress on oral ability and free composition. Reading of contemporary newspapers and magazines.

Lecture 4 hours.

### 105—CONVERSATIONAL GERMAN 2 UNITS

*Prerequisite:* One year of college German, or three years of high school German, or equivalent.

Intensive practice in oral expression and comprehension of spoken German.

Lecture (with student participation) 2 hours.

### 106—ADVANCED CONVERSATIONAL GERMAN 2 UNITS

*Prerequisite:* German 105 or equivalent.

German 106 is designed for those students who wish to take more advanced conversational topics in order to further improve their language skills.

Lecture 2 hours.

# Graphics

**165—BASIC GRAPHICS** 7 UNITS  
 (Formerly Technical Graphics 165)  
 (Formerly Technical Education 165)

*Prerequisite:* None.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists and all work missed is made up.

This course covers the basic methods required by industry for the preparation of drawings of mechanical devices. It includes a basic course in drafting consisting of instruments used in technical drawing; lettering and briefing charts, geometry of technical drawing, orthographic projection, revolutions, primary and secondary auxiliaries, sections, dimensioning, fasteners, springs, intersections, and oblique and isometric drawing.

Training emphasized both the artistic as well as the drafting approach to enable students to be proficient in pictorial sketching. A relevant program which encourages skills toward visual communications and organizing problems, to meet the ever increasing demands for speed of preparation by industry.

Lecture 4 hours, laboratory 8 hours.

**166—BASIC GRAPHICS** 7 UNITS  
 (Formerly Technical Graphics 166)  
 (Formerly Technical Education 166)

*Prerequisite:* Graphics 165.

Graphics 166 is a study of the fundamentals of isometric, dimetric, and trimetric drawing, offset measurements, non-isometric lines, inking techniques, illustrations prepared for technical publication, schematic drawing, and introduction to the basic techniques of rendering through the medium of charcoal, pastel chalks, wash, dry brush, tempera and water colors. General technical knowledge and skills used by professional illustrators are practiced in the classroom.

Laboratory 15 hours.

**167—ADVANCED TECHNICAL GRAPHICS** 7 UNITS  
 (Formerly Technical Graphics 167)  
 (Formerly Technical Education 167)

*Prerequisite:* Graphics 166.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists and all work missed is made up.

Graphics 167 covers the general technical knowledge and skills used by the professional illustrators, with the aim of preparing the student to perform complicated assignments in the preparation of technical publications such as operational handbooks, illustrated parts breakdown, visual aids, and manuals concerning maintenance, repair and overhaul procedures. Covers the rotation from the isometric plane in single and double directional rotations.

Lecture 4 hours, laboratory 8 hours.

**168—ADVANCED TECHNICAL GRAPHICS** 7 UNITS  
 (Formerly Technical Graphics 168)  
 (Formerly Technical Education 168)

*Prerequisite:* Graphics 167.

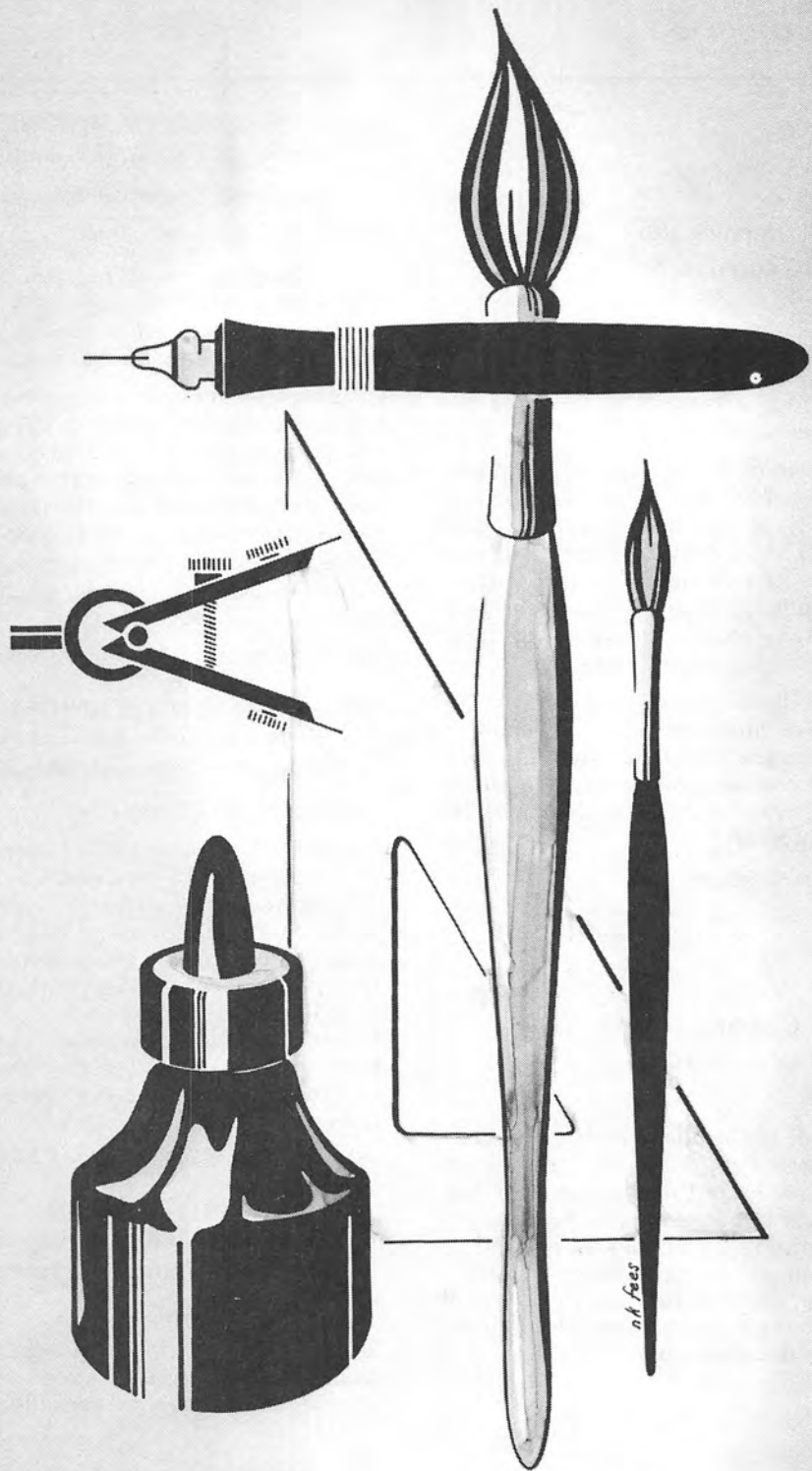
Graphics 168 covers the general technical knowledge and skills used by professional illustrators with the aim of preparing the student to perform complicated assignments in preparation of technical publications and graphic communication presentations. Covers perspective theory, rendering in all manner of graphic arts techniques: the operation, use, and care of the air brush. Creative decision are necessary in student's approach to visualization of class problems which have underlying requirement of both mechanical and artistic training.

Lecture 4 hours, laboratory 8 hours.

**169—INDUSTRIAL DESIGN** 7 UNITS  
 (Formerly Technical Graphics 169)  
 (Formerly Technical Education 169)

*Prerequisite:* Graphics 168.

Graphics 169 covers the design and production of technical graphic communications used by engineers, technicians, scientists, and executive personnel in industry.



The student is directed in the design and preparation of presentation material such as: charts, graphs, slide projectors; exhibits, industrial design models, displays, and technical brochures. Course also covers lettering and type layout reproduction methods and processes used in preparation of graphics. Latest industrial art methods and techniques are studied in order to achieve economy, speed, accuracy.

Laboratory 15 hours.

**172—PUBLICATION GRAPHICS 3 UNITS**  
 (Formerly Technical Graphics 172)  
 (Formerly Technical Education 172)

*Prerequisite:* None.

Graphics 172 is designed to increase the student's ability to employ the ingredients, methods, and techniques used in the preparation and production of brochures, reports, proposals, manuals, and audio visuals from start to finish. Though the course does not require skilled art application, it deals with the fundamentals of design, layout, typography, paper, inks, printing, binding, and audio visual preparation. Visiting specialists from related industries will discuss their roles in the graphic arts industry and answer related questions.

Lecture 3 hours.

## Guidance

**190—COLLEGE ORIENTATION (SEE NOTE)**

*Prerequisite:* None.

*Note:* The student may earn one-half, one, two, or three units each semester. For students electing one-half, one, or two units, the course may be repeated for a maximum of three units. This course may be taken as a credit-no credit course at the student's option.

Special emphasis is placed upon the time schedule, the discovery of the nature and extent of reading difficulties, outlining the lecture and reading assignments, the efficient use of the facilities for study, developing skill in note taking, and preparing for and taking of examinations. Ample opportunity is provided for the consideration of individual study problems and for practicing suggested procedures.

**191—COLLEGE ORIENTATION— (SEE NOTE)**  
**INTERNATIONAL STUDENTS**

*Prerequisite:* None.

*Note:* The student may earn one-half, one, two, or three units each semester. For students electing one-half, one, or two units, the course may be repeated for a maximum of three units.

Special emphasis is placed upon the time schedule, the discovery of the nature and extent of reading difficulties, outlining the lecture and reading assignments, the efficient use of the facilities for study, developing skill in note taking, and preparing for and taking of examinations. Ample opportunity is provided for the consideration of individual study problems and for practicing suggested procedures.

**192—COLLEGE ORIENTATION— (SEE NOTE)**  
**ACADEMIC PROBATION**

*Prerequisite:* None.

*Note:* The student may earn one-half, one, two, or three units each semester. For students electing one-half, one, or two units, the course may be repeated for a maximum of three units.

Special emphasis is placed upon the time schedule, the discovery of the nature and extent of reading difficulties, outlining the lecture and reading assignments, the efficient use of the facilities for study, developing skill in note taking, and preparing for and taking of examinations. Ample opportunity is provided for the consideration of individual study problems and for practicing suggested procedures.

**193—PSYCHOLOGY OF ADJUSTMENT 3 UNITS**

*Prerequisite:* Counselor recommendation.

A course designed to increase the student's personal and social maturity; principles of psychology related to better self-understanding and self-actualization. Development of effective study skills through systematic methods of study, increased motivation and self-discipline.

Lecture 3 hours.



**194—COLLEGE ORIENTATION—  
STUDY SKILLS** (SEE NOTE)

*Prerequisite:* None.

*Note:* The student may earn one-half, one, two, or three units each semester. For students electing one-half, one, or two units, the course may be repeated for a maximum of three units.

Special emphasis is placed upon the time schedule, the discovery of the nature and extent of reading difficulties, outlining the lecture and reading assignments, the efficient use of the facilities for study, developing skill in note taking, and preparing for and taking of examinations. Ample opportunity is provided for the consideration of individual study problems and for practicing suggested procedures.

**195—OCCUPATIONAL PLANNING** 1 UNIT

*Prerequisite:* None.

Occupational Planning provides students with an opportunity to investigate, analyze, and choose a vocational area that is appropriate in terms of their interests, abilities, and personal needs. Lectures, standardized tests, self-analysis, interviews.

Lecture 1 hour.

**196—INTRODUCTION TO PARA-  
PROFESSIONAL TRAINING** 3 UNITS

*Prerequisite:* None.

*Note:* Required for completion of the Certificate Program in Human Services.

A survey course covering the development of the para-professional movement with emphasis on the areas of community social services agencies and educational institutions. Resources in community agencies, organization of social services, delivery systems, field visitations, current issues in the para-professional movement, training for work in educational agencies and career opportunities are emphasized.

Lecture 3 hours.

# Health

**101—FIRST AID** 1 UNIT  
(Formerly Health and Physical Education 110)

*Prerequisite:* None.

*Note:* Required of all students for graduation. Recommended for physical education majors.

Prevention and care of accidents or sudden illness.

Lecture 2 hours. (8 weeks)

**103—HEALTH EDUCATION** 2 UNITS  
(Formerly Health and Physical Education 101)

*Prerequisite:* None.

*Note:* Required of all students for graduation.

A consideration of health and its effect upon the quality of human life, the effect of exercise and fatigue, prevention of specific disease, the significance of nutrition in health and disease and the hygiene of different body systems.

Lecture 2 hours.

**104—HEALTH EDUCATION** 3 UNITS  
(Formerly Health and Physical Education 103)

*Prerequisite:* None.

*Note:* It is recommended that this course be taken by all prospective elementary teachers and physical education and recreation majors. This course meets the graduation requirements of hygiene. Only one unit of credit will be allowed students having credit in Health 103.

Fundamentals of healthful living to provide the prospective teacher with scientific health information and desirable attitudes and practices in healthful living.

Lecture 3 hours.

# History

## 101—HISTORY OF WESTERN EUROPE 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Students who have taken History 108 will receive only one unit of credit for History 101.

The growth of western European civilization from the decline of the Roman Empire to the 17th Century. An introduction to the study of history, giving a general perspective of the development of those political, economic, and social institutions which explain our present-day civilization. An attempt is made to orient the student's thinking to present world problems.

Lecture 3 hours.

## 102—HISTORY OF WESTERN EUROPE 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Students who have taken History 109 will receive only one unit of credit for History 102.

The growth of western European civilization from the 17th Century to the present time. An introduction to the study of history, giving a general perspective of the development of those political, economic, and social institutions which explain our present-day civilization. An attempt is made to orient the student's thinking to present world problems.

Lecture 3 hours.

## 103—HISTORY OF LATIN AMERICA 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general survey of the history of Latin America from discovery to independence. The planting of the European civilization in Latin America, the growth of the colonies of the different nations, colonial systems, the international contest for the continents, the wars of independence in Hispanic-America.

Lecture 3 hours.

## 104—HISTORY OF LATIN AMERICA 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general survey of the history of Latin America from the establishing of the independent Latin American republics to the present; their individual problems, their relations with each other and with the rest of the world.

Lecture 3 hours.

## 106—HISTORY AND POLITICS OF THE RUSSIAN PEOPLE 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A study of the political, social, economic and cultural development of the Russian people from earliest days to the contemporary period. Emphasis will be laid on the development of the modern soviet ideology and power politics.

Lecture 3 hours.

## 107—HISTORY OF CIVILIZATION 3 UNITS (Pre-History to 800)

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general political survey of the world from earliest



times to the Carolingian Empire, c. 800, with emphasis on the development of human ideas, arts, and institutions. Emphasis is placed upon the contributions to civilization made in ancient times by Egypt, Greece, Rome, India, China, and other powers. An attempt is made to give the student a perspective on the past.

Lecture 3 hours.

**108—HISTORY OF CIVILIZATION 3 UNITS**  
**(Carolingian Empire to the French Revolution, c. 1789)**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Students who have taken History 101 will receive only one unit of credit for History 108.

A general political survey of the world from the Carolingian Empire, c. 800, to the French Revolution, c. 1789, with emphasis on the development of human ideas, arts, and institutions. The characteristics of the medieval and modern worlds are examined. The principal factors—cultural, social, economic, and political—which brought the modern world into being are analyzed.

Lecture 3 hours.

**109—HISTORY OF CIVILIZATION (French 3 UNITS**  
**Revolution to the Present)**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Students who have taken History 102 will receive only one unit of credit for History 109.

A general political survey of the world from the French Revolution, c. 1789, to the present with emphasis on the development of human ideas, arts, and institutions. An attempt is made to give the student a perspective and a basis for interpreting current world events.

Lecture 3 hours.

**110—UNITED STATES HISTORY 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* This course allows only one unit of credit for students who have completed History 117 or Social Science 131-132 and no credit for those who have completed History 118.

An interpretation of the more meaningful and significant issues, events, and ideas of the past which have played a major role in shaping present day America. Main attention is focused upon political and economic aspects with some treatment of social and cultural developments. This course meets the California State requirements in American History.

Lecture 3 hours.

**111—THE WOMAN IN AMERICAN 3 UNITS**  
**HISTORY**

*Prerequisite:* None.

A survey of the history of women in America from the colonial period to the present with emphasis on relevant political, economic, and social factors. Traditional roles of women in society are analyzed in terms of literary images, popular culture, and stereotypes. Attitudes and prejudices held by both sexes toward each other, reform movements, religious crusades, women's rights, and emancipation movements are examined in the context of American History.

Lecture 3 hours.

**112—PACIFIC COAST HISTORY 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A survey of the discovery, exploration, and settlement of Mexico, California, Oregon, Washington, British Columbia, and Alaska. Emphasis is placed upon the development of their particular political, economic, and

cultural institutions, along with their relationships with each other and the rest of the world.

Lecture 3 hours.

**113—SOCIAL, CULTURAL, AND POLITICAL BACKGROUND OF THE MEXICAN PEOPLE** **3 UNITS**

*Prerequisite:* A grade of "C" or better in a college level political science or history course or Social Science 131 or consent of the instructor or satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination.

An in-depth study of the emergence of the Mexican institutions and traditions from Pre-Colombian days to the present. The course is designed to meet the needs of the college student who wishes to understand the development of the modern Mexican nation. Modern Mexico and its development is the primary concern of this course.

Lecture 3 hours.

**117—HISTORY OF THE UNITED STATES** **3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Second semester standing is recommended for all students. History 117-118 allows only 1½ units of credit for students who have completed History 110. History 117-118 allows only three units of credit for students who have completed History 110.

A history of American civilization, European backgrounds, the English colonies, the Revolutionary War, the Constitution, and the political, social, and economic history of the United States to the Civil War. This course (if both semesters are completed) meets the California State requirements in American History and the American Constitution.

Lecture 3 hours.

**118—HISTORY OF THE UNITED STATES** **3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination

or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Second semester standing is recommended for all students. History 117-118 allows only three units of credit for students who have completed History 110.

A history of American civilization, the Civil War, Reconstruction, post-war socio-economic patterns, the Progressive Era, World War I, the Depression, World War II, and current commitments. This course (if both semesters are completed) meets the California State requirements in American History and the American Constitution.

Lecture 3 hours.

**119—HISTORY OF THE FAR EAST** **3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general survey of East Asian civilization from antiquity through the nineteenth century. Primary emphasis is placed upon the political, religious, social, and economic development of China and Japan with integrated units on Korea and Southeast Asia.

Lecture 3 hours

**120—HISTORY OF THE FAR EAST** **3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* History 119 is recommended.

A general survey of China, Japan, Korea, and Southeast Asia in the international community from the nineteenth century to the present. Primary emphasis is centered upon the impact of Western culture and the major political and social movements of the twentieth century, Nationalism and Communism.

Lecture 3 hours.

**151—THE UNITED STATES IN THE TWENTIETH CENTURY 3 UNITS**

*Prerequisite:* None.

History 151 is designed for the non-transfer student; this course analyzes the political, economic, and social history of the United States since 1900. Emphasis is placed on the critical issues of contemporary life in the perspective of their historical background in the current century. Meets the U.S. History requirement for the A.A. degree.

Lecture 3 hours.

**160—THE ADAMS CHRONICLES 1750-1900—TV only 3 UNITS**

*Prerequisite:* None.

A social history of the U.S. from 1750 to 1900, centered around 13 television dramatizations of the lives of four generations of the Adams family, showing their role in major events of the period. Presented during 13 consecutive weeks by local PBS stations, the television series will be augmented by three books; a textbook paralleling the programs, an anthology of readings providing background on the times covered in the series, and a study guide that integrates the video and print portions of the course. The television series is produced by WNET-Channel 13 in New York City with grants from the National Endowment for the Humanities, the Andrew W. Mellon Foundation, and the Atlantic Richfield Corporation.

One hour of television program each week for 13 weeks.

**ECONOMIC HISTORY OF THE UNITED STATES**  
See Economics 111.**INTRODUCTION TO SOCIAL SCIENCE**  
See Social Science 131-132.

# Home Arts

**105—INTRODUCTION TO TEXTILES 3 UNITS**

*Prerequisite:* None.

Home Arts 105 includes a study of sources and charac-

teristics of man-made and natural fibers and the processes used in manufacturing and finishing textile materials as a background for those seeking employment in the textile industry, as well as meeting the needs of Home Arts, Business, and Art Majors, and Fashion Designers, and consumers desiring acquisition of current information regarding trends in the textile field.

Lecture 3 hours.

**111—CLOTHING 3 UNITS**

*Prerequisite:* None.

The study and application of the basic pattern and its uses, applications to pattern making, and alteration of commercial patterns. A study is also made of textiles and of the care and selection of clothing for personality as well as appearance. Two machine projects are made in class from either a commercial pattern or a pattern of the student's own design and a hand project using four different stitches.

Lecture 2 hours, laboratory 4 hours.

**112—ADVANCED CLOTHING 3 UNITS**

*Prerequisite:* Home Arts 111 or Home Arts 117.

The techniques of tailoring in hand and machine work necessary to turn out fine, well tailored garments. A coat, suit, and hand project are required.

Lecture 2 hours, laboratory 4 hours.

**117—FASHION DESIGN 7 UNITS**

*Prerequisite:* Home Arts 111 or equivalent.

Pattern making and design is taught in Home Arts 117. It presents the information and demonstrates the skills designed to develop in the student the ability to: make a block pattern from standard measurements, then from individual measurements; apply the knowledge gained therefrom to various types of patterns used in the women's apparel trade and to make finished garments. Three projects are required: one sports dress, one dressy dress or formal, one additional garment.

Lecture 4 hours, laboratory 8 hours.



**118—ADVANCED FASHION DESIGN 7 UNITS**

*Prerequisite:* Home Arts 117.

Crotch items and children's clothing are taught in Home Arts 118 which presents the information and demonstrates the skills to develop in the student the ability to make an adult's and a child's basic crotch pattern, the basics for children's clothing, 2 to 6X size range, and apply the basics to various types of garments in each group, as well as making the finished garments. Five projects are required: one pair slacks, one bathing suit, one child's dress, one child's play suit, and an industrial project. Grading of all types of garments.

Lecture 4 hours, laboratory 8 hours.

**119—ADVANCED FASHION DESIGN 7 UNITS**

*Prerequisite:* Home Arts 117.

Tailoring is taught in Home Arts 119. It presents the information and demonstrates the skills to develop in the student the ability to: make the necessary hand and machine stitches used in tailoring — put in hems, seams, plackets, buttonholes, and pockets; make the hip length sloper and two-piece sleeves; grade up one size; apply all knowledge to suit and coat patterns. Garments required: one suit, one coat, one hand project.

Lecture 4 hours, laboratory 8 hours.

**120—ADVANCED FASHION DESIGN 7 UNITS**

*Prerequisite:* Home Arts 117.

Draping, taught as Home Arts 120, presents the information and demonstrates the skills necessary to develop in the student the ability to: work individually using a custom dress form to drape various types of blouses, skirts, dresses, coats, and suits employing both French draping and flat table draping; make alterations, organize and manage shop, and run work room. Comparison of men's fashions by identifying style features and quality construction. Garments required: drape one sports dress, drape one dressy dress or formal, drape one lingerie item.

Lecture 4 hours, laboratory 8 hours.

**122—FASHION PRINCIPLES 2 UNITS**

*Prerequisite:* None.

A study of the principles of fashion. Includes a study of fashion designers, apparel producers, and fashion retailers.

Lecture 2 hours.

**123—FASHION SKETCHING 2 UNITS**

*Prerequisite:* None.

*Note:* This course may be repeated for a maximum of six units, with four units to be applied to the certificate.

Home Arts 123 includes the development of a fashion figure including design concepts. Use of various media includes, pencil, watercolor, chalk, as well as ink, in order to render the figure in costume detail.

Students will develop skills necessary to render various fabrics, furs, feathers, as well as accessories, including jewelry.

Lecture 1 hour, laboratory 2 hours.

**124—FASHION ECONOMICS 2 UNITS**

*Prerequisite:* None.

An introductory course in the selection and buying of clothing and fabrics as it relates to retailing and purchasing in the fashion industry. This course is designed for those seeking employment as fashion buyers and retailers.

Lecture 2 hours.

**125—ELEMENTS OF NUTRITION 2 UNITS**

*Prerequisite:* None.

An overview of the many aspects of nutrition including problems of today, the nutritive processes of the body and dietary planning. Functions, utilization, and recommended allowances of nutrients are emphasized. Consumer education is included.

Lecture 2 hours.



**133—PERSONAL DEVELOPMENT 3 UNITS**

*Prerequisite:* None.

Development of social competence, discriminating dress, poise and personality attributes. Good health, grooming habits, diet and exercise stressed. Emphasis on wardrobe planning, make-up, hair styling, and personal analysis. Applications to home, careers, and social occasions.

Lectures, consultations, and class discussions.

Lecture 3 hours.

**155—CONSUMER CLOTHING—  
TV only 2 UNITS**

*Prerequisite:* None.

A television course comprising thirty half-hour lessons broadcast twice a week for home viewing. Consumer Clothing is an introductory clothing construction course developed to assist students to progress sequentially through the steps involved in constructing a variety of garments. The course covers a broad range of techniques and problem solutions.

Offered TV only under the title "Connie's Clothing Corner."

**160—FOODS FOR THE MODERN FAMILY 3 UNITS  
— TV only**

*Prerequisite:* None.

Foods For The Modern Family is a consumer-oriented course concerned with nutrition and economy. The course focuses on food groups, food preservation, cooking and special dining situations.

45 one-half hour television presentations.

**COSTUME CONSTRUCTION  
See Theater Arts 123.****FASHION SKETCHING  
See Home Arts 123.****INTERIOR DESIGN  
See Art 130.****MARRIAGE AND FAMILY LIVING  
See Psychology 131.****SILK SCREEN PRINTING  
See Art 144-145.**

## Independent Study

**149—INDEPENDENT STUDY 1-3 UNITS**

*Prerequisite:* Concurrent registration in six or more units.

Glendale Community College may make available in the curriculum of each division lower division units of study known as Independent Study. The purpose of the Independent Study course is to provide gifted students with an opportunity to explore a subject in greater depth than usual; to familiarize students with some basic research techniques; to interest students in possible career areas; and to take advantage of special academic interests. Emphasis shall be on individual research projects, library research and preparation of research papers.

There is no prescribed course outline. Students develop a research project, have it approved by the sponsoring instructor and appropriate division chairman. Then submit the finished project, which may be library research, or perhaps a supervised experimental program related to a specific course of instruction.

Registration is open to any student at Glendale Community College who is currently registered for six (6) or more units and who is admitted to independent study by the instructor. A study is limited to one independent study per semester and to no more than 12 units for credit toward the AA Degree or Certificate and no more than six units per division. The units received may be acceptable for college transfer subject to the approval of the individual college. The instructor shall make arrangements for students' independent study registration with the registration office. Attendance accounting procedures shall be cleared with the Admissions and Records office by the instructor.

## Italian

**110—CONVERSATIONAL ITALIAN I 2 UNITS**

*Prerequisite:* None.

*Note:* This course may be taken as a credit-no credit course at the student's option.

Fundamentals of grammar and correct pronunciation are stressed so that the student can employ a small working vocabulary in conversation and writing. The ability to read simple Italian is also developed.

Study and practice 3 hours.

### 111—CONVERSATIONAL ITALIAN II 2 UNITS

*Prerequisite:* Italian 110 or equivalent. This course may be taken as a credit-no credit course at the student's option.

A continuation in the study of Italian as a conversational language with emphasis on lifelike situations. Attention is given to essential grammar principles and cultural information.

Lecture and practice 3 hours.

## Journalism

### 101—INTRODUCTION TO MASS COMMUNICATIONS 3 UNITS

*Prerequisite:* None.

A survey of the mass communication media, including newspapers, magazines, radio, and television, with emphasis on the newspaper. Study of theory and function of news, features, editorials, and advertising, historical development of the media, legal freedoms and limitations of the media, and the ethics of communication. Stress is placed on the relationships and responsibilities of the mass media to society.

Lecture 3 hours.

### 102—REPORTING THE NEWS 3 UNITS

*Prerequisite:* A satisfactory score on the English Placement Examination, or a grade of "B" or better in English 191, or a grade of "C" or better in English 120.

An introductory course in the gathering and writing of news, features, and editorials. Emphasis on clear and concise written expression with laboratory drill in English fundamentals. Study of news sources, acceptable forms for stories, style and methods of various media, elementary editing, and law and ethics of communica-

tion. Newspapers and other media at the local community level as well as the national metropolitan levels are utilized.

Lecture 3 hours, laboratory 1 hour.

### 103—NEWS WRITING AND NEWSPAPER PRODUCTION 3 UNITS

*Prerequisite:* Journalism 102, professional publication experience or newspaper experience on the college level.

A course in writing news, feature, and editorial copy, copy reading and editing, headline writing, newspaper layout and make-up and the mechanics of newspaper production. Study of law and ethics of the press and over-all emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the campus newspaper *El Vaquero*.

Lecture 2 hours, laboratory 4 hours.

### 104—ADVANCED NEWS WRITING AND NEWSPAPER PRODUCTION 3 UNITS

*Prerequisite:* Journalism 102 or Journalism 103.

*Note:* This course may be repeated for a maximum of six units.

An advanced course in writing news, feature, and editorial copy, copy reading and editing, headline writing, newspaper layout and make-up, and the mechanics of newspaper production. Study of law and ethics of the press and over-all emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the campus newspaper *El Vaquero*.

Lecture 2 hours, laboratory 4 hours.

### LAW, BUSINESS

See Business 161, 162.

### LAW FOR THE LAYMAN

See Business 165.

# Library Technology

## 101—INTRODUCTION TO LIBRARY SERVICES 3 UNITS

*Prerequisite:* None.

An introduction to libraries and their organization. It is designed for students interested in employment in a special, school, public, or college library at a semi-professional level. Basic philosophy, procedures, resources, and techniques to accomplish work on a supportive level to the professional staff are emphasized. The orientation is that of a modern multi-media learning center. The laboratory experience gives practical training for the student so that he or she may take a job as a library assistant or aide.

Lecture 2 hours, laboratory 2 hours.

# Machine Shop

## 101—MACHINE SHOP 7 UNITS

*Prerequisite:* Concurrent enrollment in Mathematics 150, or Technical Education 143, or Technical Education 144.

*Note:* Drafting 129 is recommended, but not required for Certificate of Completion. Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Fundamentals of the machinist trade. Instructions on the proper care and use of precision and hand tools. Basic training in tool grinding, machine set-up, and the operation of lathes, shapers, milling machines, drill presses, and grinders.

This course consists of four three-hour periods each week of which a minimum of two hours per week will be lectures on basic related science and mathematics. Machine demonstration will precede all new operations.

## 102—MACHINE SHOP 7 UNITS

*Prerequisite:* Machine Shop 101 or Machine Shop 105 and concurrent enrollment in Technical Education 144 or a more advanced mathematics course.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Fundamentals of the machinist trade. More advanced training in set-up work, tool grinding, and machine operations. Related lectures will cover types of threads and threading, calculating and cutting of tapers, gears and gear trains. Basic design and capacity of machine tools will be investigated.

This course consists of four three-hour periods each week of which a minimum of two hours per week will be lecture. Machine demonstrations will precede all new operations.

## 103—ADVANCED MACHINE SHOP 7 UNITS

*Prerequisite:* Machine Shop 102. Concurrent enrollment in one of the following is recommended, but not required for Certificate of Completion: Welding 117, Drafting 129, Technical Education 145 or Materials and Processes 146

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

More advanced and complicated operations of machine tools and equipment. Precision inspection, production and assembly, are studied. Lectures and demonstrations on specialized machine tools and equipment will give the student a better understanding of their use and capacities.

This course consists of four three-hour periods each week of which a minimum of two hours per week will be lecture.

## 104—ADVANCED MACHINE SHOP 7 UNITS

*Prerequisite:* Machine Shop 103. Concurrent enrollment in one of the following is recommended, but not required for Certificate of Completion: Welding 117, 118, or Drafting 129, Technical Education 145.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

More advanced and complicated operations of machine tools and equipment. Lectures and demonstrations will include a thorough investigation of heat-treatment of metals, special metals and their uses, abrasives, grinding wheels, and efficient use of surface, cylindrical, and tool cutter grinders. Basic tool and die work in which the student designs and builds jigs and fixtures if offered to students showing advanced abilities.

This course consists of four three-hour periods each week of which a minimum of two hours per week will be lecture.

### 105—INTRODUCTION TO MACHINE SHOP 5 UNITS

*Prerequisite:* None.

Introductory machine shop training program offered for men currently working in industrial machine shops or related fields. This program is set up primarily to upgrade and review technical skills and related knowledge of industrial workers. Engineering and drafting majors will gain a better insight into manufacturing procedures through participation in this program.

Lecture 2 hours, laboratory 7 hours.

### 106—MACHINE SKILLS ACCELERATION 5 UNITS

*Prerequisite:* Concurrent enrollment in one of the following: Machine Shop 101, 102, 103, 104, or 109.

*Note:* Students must register for the full number of hours for which the course is scheduled but late registration is permitted provided a vacancy in the class exists.

The entire laboratory periods will be spent preparing cutting tools, setting up machines and operating shop machinery and supporting equipment. Maximum 5 units per semester for five semesters.

Demonstration and practice 12 hours.

### 107—MACHINE SHOP PRACTICE (SEE NOTE)

*Prerequisite:* None.

*Note:* Credit per semester will be indicated on Schedule. Proportionately less credit may be earned for carrying less than a full schedule. A maximum of 32 units of credit will be allowed for the combined work of Machine Shop 107 and Machine Shop 108.

A course to provide practice on machine shop equipment. Students will work on individual projects which they will retain for their use. Training received in this course will develop an ability to visualize and perform various functions necessary in the machine trade.

Laboratory 6 hours.

### 108—MACHINE SHOP PRACTICE (SEE NOTE)

*Prerequisite:* Machine Shop 107.

*Note:* Credit per semester will be indicated on Schedule. Proportionately less credit may be earned for carrying less than a full schedule. A maximum of 32 units of credit will be allowed for the combined work of Machine Shop 107 and Machine Shop 108.

A course to provide practice on machine shop equipment. Students will work on individual projects which they will retain for their use. Training received in this course will develop an ability to visualize and perform various functions necessary in the machine trade.

Laboratory 6 hours.

### 109—PRINCIPLES OF TOOL ENGINEERING 7 UNITS

*Prerequisite:* Machine Shop 104.

*Note:* Students must register for the full number of hours for which the course is scheduled, but late registration is permitted provided a vacancy in the class exists.

Advanced course in machine shop training presenting systems of production, interchangeability, and dimensioning as they pertain to tool design and construction of drill jigs, milling, grinding, and lathe fixtures, locating and clamping of parts, tooling for horizontal turret lathes, and toolroom inspection and gauging will be studied. The tool engineer and designer's training, duties and place in a manufacturing organization are investigated.

Lecture 2 hours, laboratory 10 hours.

## Management

### (Business Division)

Classes in Management are offered for students interested in preparing for positions requiring supervision and man-

agement skills. The classes are scheduled from semester to semester on a rotation basis according to student need. The courses are also of value to personnel already employed as foremen, supervisors, and other group leaders in business, public service, and industry. A Certificate of Completion may be earned.

### 101—INTRODUCTION TO MANAGEMENT 3 UNITS

*Prerequisite:* None.

*Note:* It is recommended that the student complete one year of occupational training or equivalent service, industrial, or business experience before taking this course.

Covers in general terms the management system organization as it affects the supervisor; direction of subordinates through leadership; appreciation for fiscal and property accounting; procedures for hiring, training, evaluation, discipline, grievances, and dismissal; effective communication; vertical and lateral forces affecting the supervisor; wage and salary administration; and collective bargaining.

Lecture 3 hours.

### 103—HUMAN RELATIONS FOR MANAGEMENT 3 UNITS

*Prerequisite:* Management 101.

Covers development of human relations climate; patterns, function, and types of leadership, simulation training; organizational levels; staff relationships; and organizational and group dynamics; informal organizations; working with unions; managing change; wage administration and incentives; procedures and work systems; attitudes; and development of participations.

Lecture 3 hours.

### 104—MANAGEMENT RESPONSIBILITY FOR PERSONNEL 3 UNITS

*Prerequisite:* Management 101.

Personnel techniques for which the supervisor is partially responsible and for which he should have some training. Selection, testing, placement, orientation, training, counseling, merit rating, promotion, transfer, and training for responsibility.

Lecture 3 hours.

### 105—PLANNING AND ORGANIZATION 3 UNITS

*Prerequisite:* Management 101.

Covers techniques for planning; staffing; organization objectives, and flexibility; functions of directing, control, coordinating, and training; service departments; job descriptions; grievance procedures, and maintaining production.

Lecture 3 hours.

### 107—INDUSTRIAL ECONOMICS 3 UNITS

*Prerequisite:* Management 101.

Significant economic facts. Development of a critical attitude toward industrial economics. Institutions and practices that determine our social environment. Management-supervisory employee relationships to economy and local industry.

Lecture 3 hours.

### 108—WORK SIMPLIFICATION AND PRODUCTION CONTROL 3 UNITS

*Prerequisite:* Management 101.

Management's responsibility for job methods improvement and control of both continuous and intermittent manufacturing processes. Management's ability to continually apply work improvement and production control methodology to increase productivity and employee job enrichment and satisfaction. Production control standards, impact of automation, job enrichment, cost control, productivity gains, sales forecasting, and critical path analysis.

Lecture and discussion 3 hours.

### 109—COST CONTROL AND ANALYSIS 3 UNITS

*Prerequisite:* Management 101.

Analysis of cost in industry. Cost control and its functions. The supervisor's responsibility for costs. Factors in cost control; costs, materials, waste, salvage, quality control, quantity control, and control of time.

Lecture 3 hours.

**110—WAGE ADMINISTRATION AND LABOR RELATIONS 3 UNITS**

*Prerequisite:* Management 101.

Management and union relations related to the establishment of a "fair wage" plan. Supervisor's responsibility in establishing job descriptions, job specifications, and classification of jobs. Job and manpower requirements and merit evaluation. Management and union involvement in job ranking and wage rate grade/ranges. Fringe benefits, pension plans, profit sharing, bonus plans, and grievance handling. Federal regulations governing wages.

Lecture and discussion 3 hours.

**111—ORAL COMMUNICATION 3 UNITS**

*Prerequisite:* Management 101.

Covers planning interpersonal communication, speaking techniques, conducting question-and-answer periods, conference leading on the job, objectives of good presentations, use and misuse of visuals in oral presentations, interviewing, bridges and barriers to communications, and what to do about rumors.

Lecture 3 hours.

**112—WRITTEN COMMUNICATIONS 3 UNITS**

*Prerequisite:* Management 101.

Covers principles of business communications, informal and formal reporting, interpreting written directions, the report and memorandum, and building a vocabulary.

Lecture 3 hours.

**113—INDUSTRIAL SAFETY AND FIRE PREVENTION 3 UNITS**

*Prerequisite:* Management 101.

Emphasizing provisions of California's Occupational and Safety Act (Cal-OSHA), this course covers management and supervisory responsibility for fire and accident prevention, accident reports and the supervisor, good housekeeping and fire prevention, machine guarding and personnel protective equipment, First Aid Department and the line supervisor's responsibility, job and safety instruction, company regulations and enforcement, use of safety committees, insurance carrier and Insurance Rating Bureau, and advertising and promoting an effective safety and fire prevention program.

Lecture 3 hours.

**115—MANAGEMENT CONTROL 3 UNITS**

*Prerequisite:* Management 101.

Basic principles of controls. Delegation of responsibility through the use of controls. The purpose and objectives of controls, manufacturing costs, quality control, quantity control, production control, control over materials, control over the organization, and control over personnel.

Lecture 3 hours.

**INDUSTRIAL ENGLISH**

See English 131-132.

## Materials and Processes

**146—MATERIALS AND PROCESSES 3 UNITS**

*Prerequisite:* None.

A study of the manufacture and properties of ferrous and nonferrous alloys, ceramic products, wood cements, plastics, fuels, glass, concrete, rubber, etc. Their uses, adaptability, and limitations in industry will be studied. Methods of manufacture and techniques currently used will be covered.

The course covers the strength and testing of materials by the destructive and non-destructive methods and the physical properties of materials.

Lecture 3 hours.

## Mathematics

**BUSINESS MATHEMATICS**

See Business 111, 112, 117, 119

**TECHNICAL MATHEMATICS**

See Technical Education 143, 144.

**101—INTERMEDIATE ALGEBRA 5 UNITS**

*Prerequisite:* Mathematics 140 with a grade of "C" or better and Mathematics 141 with a grade of "C" or better, or one year of algebra and one year of plane geometry in high school with a grade of "C" or better. Mathematics 140 may be taken concurrently.

$$\sum_{i=1}^{k+1} z_i = \left( \sum_{i=1}^k z_i \right) + z_{k+1} =$$

$$\left( \sum_{i=1}^k z_i \right) + \bar{z}_{k+1}$$

$$\tan t = \frac{\sin t}{\cos t}$$

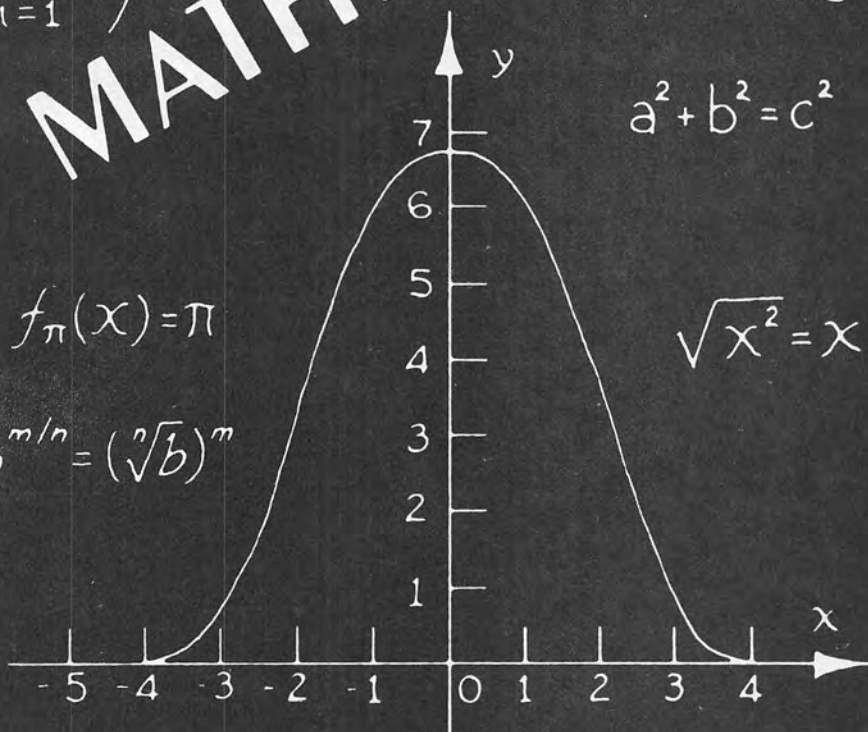
# MATHEMATICS

$$a^2 + b^2 = c^2$$

$$f_{\pi}(x) = \pi$$

$$\sqrt{x^2} = x$$

$$b^{m/n} = (\sqrt[n]{b})^m$$



$$\frac{\sqrt[3]{8xy^2}}{\sqrt[4]{16x^2y^2}} = \frac{8^{1/3} x^{1/3} y^{2/3}}{16^{1/4} x^{2/4} y^{2/4}} =$$

$$\frac{2x^{1/3} y^{2/3}}{2x^{1/2} y^{1/2}} = x^{-1/6} y^{1/6} = \sqrt[6]{\frac{y}{x}}$$

Fundamental laws, curve plotting, linear equations, negative and fractional indices, quadratic equations, arithmetic and geometric progressions, the binomial theorem, the factor theorem, the remainder theorem, synthetic division, logarithms, and second and third order determinants.

Lecture 5 hours.

**102—TRIGONOMETRY 3 UNITS**

*Prerequisite:* Mathematics 101 with a grade of "C" or better or two years of algebra and one year of plane geometry in high school with grades of "C" or better.

A course in plane trigonometry which emphasizes the analytic aspects of the subject including trigonometric functions of right, acute and related angles, trigonometric identities and equations, radian measure, functions of two angles, logarithms, right and oblique triangles, inverse functions, complex numbers.

Lecture 3 hours.

**103—CALCULUS AND ANALYTIC GEOMETRY 5 UNITS**

*Prerequisite:* Mathematics 101 with a grade of "C" or better and Mathematics 102 with a grade of "C" or better, or two years of algebra, one year of plane geometry, and one semester of trigonometry in high school with grades of "C" or better or equivalents.

*Note:* Mathematics 101 or 102 may not be taken concurrently.

This is the first of a sequence of three courses which combines the subject matter of analytic geometry, calculus and linear algebra. Functions and their graphs are studied with special attention to differentiation, indefinite and definite integrals with applications.

Lecture 5 hours.

**104—CALCULUS AND ANALYTIC GEOMETRY 5 UNITS**

*Prerequisite:* Mathematics 103 with a grade of "C" or better.

*Note:* Mathematics 101, 102, or 103 may not be taken concurrently.

Transcendental functions, polar coordinates, techniques of integrations, conic sections, indeterminate forms and infinite series.

Lecture 5 hours.

**105—CALCULUS AND ANALYTIC GEOMETRY 5 UNITS**

*Prerequisite:* Mathematics 104 with a grade of "C" or better.

Vectors in the plane and 3 dimensional space, the differential calculus of functions of several variables, multiple integration, and linear algebra.

Lecture 5 hours.

**106—LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS 5 UNITS**

*Prerequisite:* Mathematics 105 with a grade of "C" or better.

Vector spaces, linear transformations and matrices, matrix algebra, determinants and solutions of systems of equations, La Place transforms. Different equations including applications. Offered in Spring Semester only.

Lecture 5 hours.

**109—HAND CALCULATOR 1 UNIT**

*Prerequisite:* Mathematics 141 or one year of high school algebra.

*Note:* "How to select a calculator" will be discussed at the first class meeting. The student must possess by the second meeting a hand calculator that has a floating decimal display with at least eight significant digits.

Instruction in the use and application of both the basic hand calculator and the scientific calculator. Emphasis will be placed upon applications from the scientific fields as well as from business and consumer mathematics.

Lecture 2 hours (8 weeks)

**130—FORTRAN IV PROGRAMMING 3 UNITS**

*Prerequisite:* Mathematics 102 or plane trigonometry.

*Note:* No credit will be granted to students who have already received credit for Business 129.

Mathematics 130 is designed to introduce the student to



the techniques of writing a program in FORTRAN IV, with mathematical and scientific application. Use of a computer to test programs will be a significant part of the course.

Lecture 2 hours, laboratory 4 hours.

### 138—ARITHMETIC FOR ELEMENTARY TEACHERS 3 UNITS

*Prerequisite:* One year of algebra in high school or Mathematics 141; one year of plane geometry or Mathematics 140; proof of competence in arithmetic (satisfactory score on the Mathematics Proficiency Examination) or Mathematics 150 or Business 117.

Designed primarily for prospective teachers of arithmetic. The study of the fundamental operations of integers and fractions is stressed, together with suitable visual aids. Although efficiency in arithmetical skills is required, the emphasis is on the understanding of arithmetical procedures.

Lecture 3 hours.

### 140—PLANE GEOMETRY 3 UNITS

*Prerequisite:* Mathematics 141 with a grade of "C" or better or one year of algebra in high school with a grade of "C" or better.

A comprehensive course in plane geometry: sets and geometric figures, congruence, parallel lines and parallelograms, circles, inequalities, proportion and similar polygons, loci, constructions, areas of polygons.

Lecture 3 hours.

### 141—FUNDAMENTALS OF ALGEBRA 3 UNITS

*Prerequisite:* None.

A course in the fundamental operations of algebra: solution of linear and quadratic, algebraic operations, algebraic fractions, and powers and roots. This course is the equivalent of one year of algebra in high school.

Lecture 5 hours.

### 150—BASIC MATHEMATICS 2 UNITS

*Prerequisite:* None.

*Note:* This course may not be taken for credit by students who have made a satisfactory score on the Mathematics Proficiency Examination.

A course in the fundamental processes of arithmetic designed to develop both accuracy and speed in computation using whole numbers, fractions, decimals, percent, basic units of measure, and properties of decimal number system.

Lecture 2 hours.

## Metals

### 115—GENERAL METALS (1A) 3 UNITS

*Prerequisite:* None.

A course designed to aid students in allied fields of metal working. Emphasis is placed on teaching techniques for industrial art majors. The course includes theory and practice in metal working, pattern drafting, heat-treating, foundry, welding, art metal, and metals in everyday living. A suggested related course for engineering students.

Lecture 1 hour, laboratory 5 hours.

### MICROBIOLOGY

See Biology 112.

## Mineralogy

### 101—MINERALOGY 4 UNITS

*Prerequisite:* Chemistry 101 or Chemistry 110 or Chemistry 141; or chemistry in high school. Chemistry 101 may be taken concurrently.

*Note:* It is recommended that Geology 101 be taken prior to or concurrently.

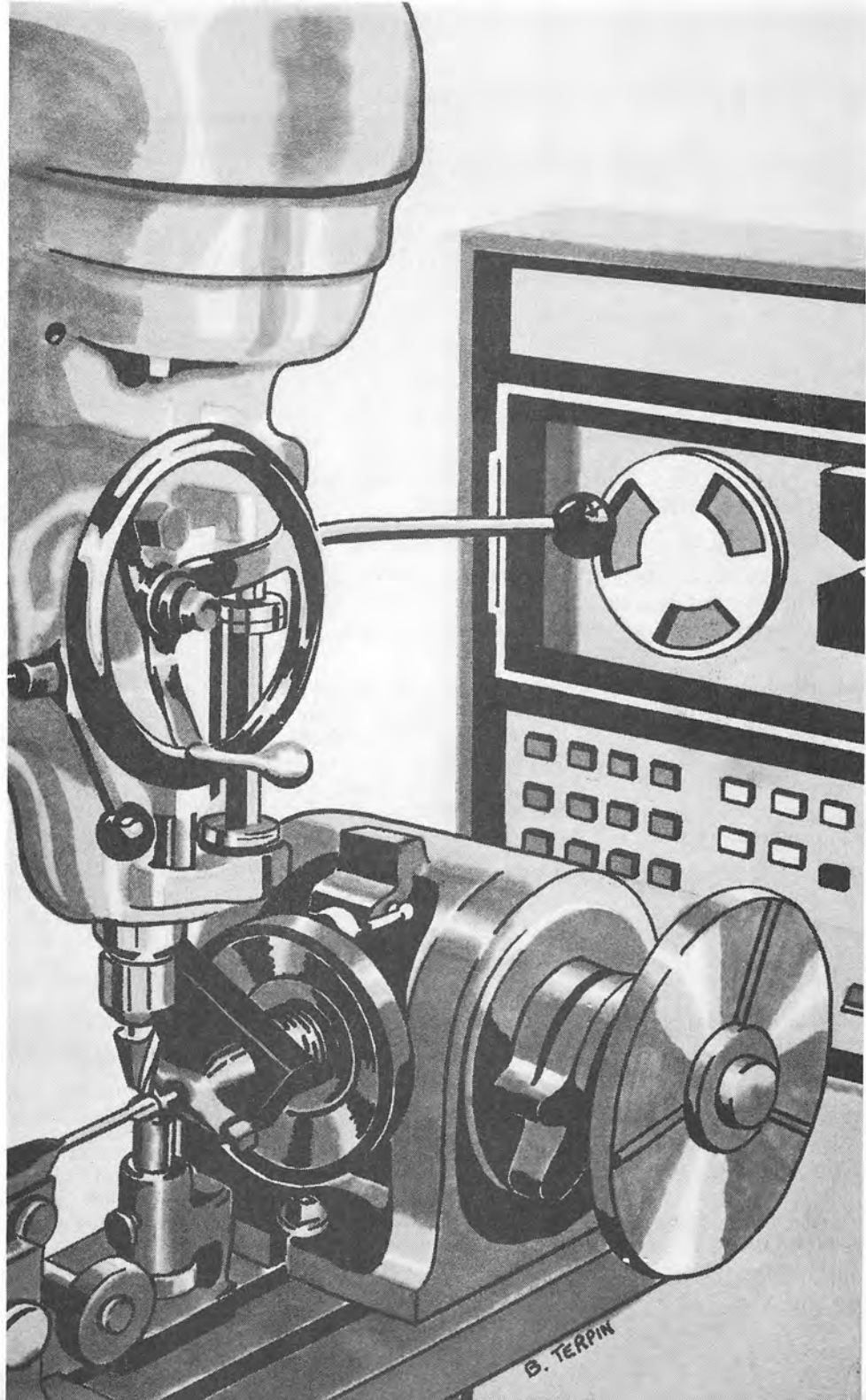
Lectures and laboratory work on the physical properties of minerals, their occurrence and crystal morphology. Practice in determination of minerals by physical properties and simple chemical tests.

Lecture 2 hours, laboratory 6 hours.

### 141—MINERALOGY AND ORE IDENTIFICATION 2 UNITS

*Prerequisite:* None.

An introductory course, including laboratory, on miner-



als and ores and means of identifying them both in the field and confirmation in the laboratory. The interrelationships of geological structure and economic geology. Formation of ore bodies, prospecting, mineral types, use of Geiger counter and scintillometer for identification of uranium-radium bearing ores.

Lecture 1 hour, laboratory 2 hours.

## Multi-Media

### 190—TECHNIQUES FOR MULTI-MEDIA AIDES (SEE NOTE)

*Prerequisite:* None.

*Note:* Since Multi-Media 190 is constructed in three distinct but related modules, the open entry/open exit policy will apply. The course may be taken for one, two, or three units of credit.

Multi-Media 190 is a beginning course in the techniques needed by Multi-Media Aides in the Learning Resource Center at Glendale Community College and in other resource centers, skill centers, and libraries. Training and experience provided in the utilization of media self-teaching materials and equipment. Emphasis is on use of programmed texts and devices.

Lecture 18 hours, supervised practice and study 6 hours per unit.

## Music

### 101—FUNDAMENTALS OF MUSIC 3 UNITS (Formerly Music 110)

*Prerequisite:* None.

A course designed especially for those who wish a comprehensive knowledge of the basic theory of music. It includes the study of the piano keyboard, music symbols and notation, musical terminology, major and minor scales, simple and compound meter, simple sight-singing, intervals and triads. It is suggested that, if possible, Music 160 be taken concurrently.

Lecture 3 hours.

### 104—MUSICIANSHIP 1 UNIT

*Prerequisite:* Music 101 or equivalent.

*Note:* Concurrent enrollment in either Music 107 or Music 108 or Music 109 is required.

Music 104 is a course to train the musical ear to recognize the different intervals and rhythms continuously used in our musical compositions. Also, the basic keyboard patterns are used in the study of intervals, chords, and rhythms.

Lecture 1 hour, laboratory 1 hour.

### 105—MUSICIANSHIP 1 UNIT

*Prerequisite:* Music 104 or equivalent.

*Note:* Concurrent enrollment in either Music 107 or Music 108 or Music 109 is required.

Music 105 is a course to train the musical ear to recognize the different intervals and rhythms continuously used in our musical compositions. Also, the basic keyboard patterns are used in the study of intervals, chords and rhythms.

Lecture 1 hour, laboratory 1 hour.

### 106—MUSICIANSHIP 1 UNIT

*Prerequisite:* Music 105 or equivalent.

*Note:* Concurrent enrollment in either Music 107 or Music 108 or Music 109 is required.

Music 106 is a course to train the musical ear to recognize the different intervals and rhythms continuously used in our musical compositions. Also, the basic keyboard patterns are used in the study of intervals, chords, and rhythms.

Lecture 1 hour, laboratory 1 hour.

### 107—HARMONY 3 UNITS

*Prerequisite:* Music 101 or equivalent.

*Note:* Concurrent enrollment in either Music 104 or Music 105 or Music 106 is required.

The primary concern of this course is to provide an understanding of the common practices of composers, in matters of harmony, as observed in music of the eighteenth and nineteenth centuries. Music 107 is required for music majors. For the non-pianist, concurrent study of piano is strongly recommended.

Lecture 3 hours.

**108—HARMONY 3 UNITS**

*Prerequisite:* Music 107

*Note:* Concurrent enrollment in either Music 104, Music 105, or Music 106 is required.

Music 108 is a continuation of Music 107, and is required for music majors. For the non-pianist, concurrent study of piano is strongly recommended.

Lecture 3 hours.

**109—HARMONY 3 UNITS**

*Prerequisite:* Music 108

*Note:* Concurrent enrollment in either Music 104 or Music 105 or Music 106 is required.

Music 109 is a continuation of Music 108, and is required for music majors. For the non-pianist, concurrent study of piano is strongly recommended.

Lecture 3 hours.

**114—COUNTERPOINT 3 UNITS**

*Prerequisite:* Music 108

Music 114 is a study of 18th century melody, invention, canon and fugue through analysis and composition.

Lecture 3 hours.

**115—ARRANGING 2 UNITS**

*Prerequisite:* High school harmony, or Music 107 at Glendale Community College. (Students who have had harmony with a private teacher may request an examination to be given by the instructor and be accepted or rejected on the result of this test.)

Music 115 includes Dance Band Harmony and Voicing; planning an arrangement; present dance band vocal styles; intros, modulations and endings; harmonic progression; experimental material for the progressive arranger-composer.

Lecture 3 hours.

**120—HISTORY AND APPRECIATION OF MUSIC 3 UNITS**

*Prerequisite:* None.

*Note:* Students having credit for Music 125 or Music 126 may not receive credit for Music 120. This course is de-

signed especially for non-music majors. Music majors should enroll in Music 125 and Music 126. The student is required to attend five (5) concerts.

A study of form and style in music through lectures, illustrations, readings, and live musical performances with regard to the structure and aesthetics of musical compositions. The historical development of music is shown with emphasis on music performed in the concert stage today.

Lecture 3 hours, directed listening 1 hour.

**125—HISTORY AND LITERATURE 3 UNITS**

*Prerequisite:* A substantial background in music is required of all students who enroll in Music 125.

*Note for Music Majors:* Music 125 is required for all music majors. This course is designed primarily for the music major and meets the partial transfer requirements of Music History and Literature courses for a music major into a four-year college. Music majors may enroll in Music 126 before enrolling in Music 125; this is not advised unless absolutely necessary. The student is required to attend five (5) concerts.

Music 125 covers the history of music from the early Christian era through the Baroque Period. In addition to lectures and readings, the course includes a study of live and recorded musical performances.

Lecture 3 hours, directed listening 1 hour.

**126—HISTORY AND LITERATURE 3 UNITS**

*Prerequisite:* A substantial background in music is required for all students who enroll in Music 126.

*Note for Music Majors:* Music 126 is required for all music majors. This course is designed primarily for the music major and meets the partial transfer requirements of Music History and Literature courses for a music major into a four-year college. Music majors may enroll in Music 126 before enrolling in Music 125; this is not advised unless absolutely necessary. The student is required to attend five (5) concerts.

Music 126 begins with the mid-18th century and continues with musical history through the present day. In addition to lectures and readings, the course includes a study of live and recorded musical performances.

Lecture 3 hours, directed listening 1 hour.

**129—FOLK POETRY AND ROCK MUSIC 3 UNITS**

*Prerequisite:* None.

This course consists of listening to, studying, and analyzing the music and lyrics of Rock music. The course will take an historical perspective beginning with the Greek lyric and tracing the development of the lyric through the Renaissance and into its rebirth in the 20th century. Attention will be paid to Gregorian chants, the development of polyphonic music, the splitting of music and poetry into separate art forms, the tendency for those art forms to become increasingly elite, thus exempting the common man from participation and appreciation of the forms, and the reintegration of the two traditions in Rock. The approach will be comparative; the goal will be to see how music and lyrics communicate human experiences and insights.

Lecture 3 hours.

**130—CHORUS (SEE NOTE)**

*Prerequisite:* None.

*Note:* This course may be taken for one unit each semester for a total of four semesters (4 units).

A beginning course in the appreciation and performance of standard choral literature, with special emphasis on principles of part singing, vocal control, interpretation, diction, phrasing, and breath control. Public performances may be required.

Lecture 1 hour, laboratory 1 hour.

**131—COLLEGE CHOIR 2 UNITS**

*Prerequisite:* Music 130 or at least one year of choral experience in high school and evidence of vocal ability and musicianship. An audition is required.

*Note:* This course may be repeated for a maximum of twelve units.

An advanced form of choral art. Repertoire drawn from all periods and styles of western choral composition. Emphasis on interpretation, choral techniques, and public performances.

Lecture 2 hours, laboratory 3 hours.

**132—VOCAL ENSEMBLES (SEE NOTE)**

*Prerequisite:* The ability to sing with good pitch and ac-

ceptable vocal quality. The display of good musicianship.

*Note:* This course may be taken for one unit each semester for a total of six semesters (6 units).

The study and performance of choral literature composed for the small vocal ensembles (quartets, trios, etc.) Emphasis is placed on choral blend, balance, and correct habits in vocal production. Preparation of music for public presentation. Auditions must precede registration.

Lecture 1 hour, laboratory 1 hour.

**133—CHAMBER CHORALE (SEE NOTE)**

*Prerequisite:* An audition is required.

*Note:* Music 131 may be taken concurrently. This course may be taken for one unit each semester for a total of six units. Membership is limited to sixteen.

A group of highly selected voices which performs representative works of the choral literature suitable for a chamber group. Madrigals as well as many other styles and types are performed from every century.

Lecture 1 hour, laboratory 3 hours.

**135—VOICE TRAINING 2 UNITS**

*Prerequisite:* A sufficiently accurate ear to sing in tune.

*Note:* This course may be repeated for credit but not more than eight units in Music 135 and Music 136 will be granted by Glendale Community College.

The principles of correct vocal production and their application to the simpler songs and ballads in English. Good breathing habits, poise, diction, style, tone-color, and interpretation are stressed. The development of appreciation for the vocal arts is an important aspect of the course.

Instruction 2 hours, directed practice by arrangement 2½ hours.

**136—VOICE TRAINING 2 UNITS**

*Prerequisite:* Music 135.

*Note:* This course may be repeated for credit but not more than eight units in Music 135 and Music 136 will be granted by Glendale Community College.

The principles of correct vocal production and their application to the simpler songs and ballads in English. Some foreign songs will be explored. Good breathing habits, poise, diction, style, tone-color, and interpretation are stressed. The development of appreciation for the vocal arts is an important aspect of the course.

Instruction 2 hours, directed practice by arrangement 2½ hours.

**138—PRIVATE STUDY IN MUSIC (SEE NOTE)  
WITH OFF-CAMPUS TEACHERS**

*Prerequisite:* Concurrent enrollment in one of the following courses relating to their private study. These include: Music 130, 131, 133, 140, 144, 145, 150, 151, 160, 161, 162, 163, 165.

*Note:* One unit per semester (maximum 4 units).

Private study with accredited voice or instrumental teacher. Performance before faculty committee will take the place of an examination.

Lecture 1 hour, laboratory 5 hours.

**140—INSTRUMENTAL TECHNIQUES 1 UNIT  
(Wood Wind—Brass)**

*Prerequisite:* None.

*Note:* This course may be taken for one unit each semester for a total of four semesters.

Music 140 provides class instruction in the basic techniques of wood-wind and brass instruments. This course is primarily designed as a preparatory course for music majors who plan to enter the field of music education. The course is, however, open to non-music majors; it is of special value to those students who wish to become elementary teachers, but it also provides a fundamental knowledge of the potential of wood-wind and brass instruments for purposes of composition and arranging.

Instruction 2 hours, directed practice by arrangement 3 hours.

**141—CONCERT BAND (SEE NOTE)**

*Prerequisite:* Ability to perform on a standard band instrument.

*Note:* This course may be taken for one unit per semester for a total of six units.

The Concert Band meets once each week for rehearsal. During the first ten weeks of the fall semester members

of the Concert and Pep Band rehearse simultaneously; members enrolled in Concert Band are not required to attend games. A student may, however, enroll in both Music 141 and Music 142 for the fall semester and receive one unit for each course. At the close of the football season the Concert Band devotes itself entirely to the study of concert music for band and the preparation of material for band concerts.

Instruction 2 hours, directed practice by arrangement 3 hours.

**142—PEP BAND (SEE NOTE)**

*Prerequisite:* Ability to perform in a satisfactory manner on a standard band instrument.

*Note:* This course may be taken for one unit per semester for a total of six units.

The Pep Band meets once each week in conjunction with the Concert Band for a rehearsal period of two hours. Materials used during the first ten weeks for both the Pep and Concert Band are marches and other selections that are suitable for the football games. Members enrolled in Music 142 are required to attend all football games, rallies, etc., during the first ten weeks of the fall semester.

Lecture 2 hours. Games: Average 4 hours.

**143—STAGE BAND (SEE NOTE)**

*Prerequisite:* The ability to perform in a proficient manner upon the trumpet, trombone, saxophone, drums string bass, guitar, or piano.

*Note:* This course may be taken for one unit each semester for a total of six units.

Workshop for the study and performance of music in the contemporary idiom. Performances are made at Glendale Community College, and for various programs in the community. Membership is limited to twenty and is subject to final approval of the instructor following an audition.

Laboratory 2 hours.

**144—WOOD WIND ENSEMBLE (SEE NOTE)**

*Prerequisite:* Ability to play a musical instrument in a band or orchestra.

*Note:* This course may be taken for one unit each

semester for a total of six units.

A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

Instruction 2 hours, directed practice by arrangement 3 hours.

**145—BRASS ENSEMBLE (SEE NOTE)**

*Prerequisite:* Ability to play a musical instrument in a band or orchestra.

*Note:* This course may be taken for one unit each semester for a total of six semester (6 units).

A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

Instruction 2 hours, directed practice by arrangement 3 hours.

**150—INSTRUMENTAL TECHNIQUES (Strings) 1 UNIT**

*Prerequisite:* None.

*Note:* This course may be taken for one unit each semester for a total of four semesters.

Music 150 provides class instruction in the basic techniques of stringed instruments. This course is primarily designed as a preparatory course for music majors who plan to enter the field of music education. The course is, however, open to non-music majors; it is of special value to those students who wish to become elementary teachers, but it also provides a fundamental knowledge of the potential of string instruments for purposes of composition and arranging.

Instruction 2 hours, directed practice by arrangement 3 hours.

**151—ORCHESTRA (SEE NOTE)**

*Prerequisite:* Ability to perform on a standard orchestral instrument.

*Note:* This course may be taken for one unit each semester for a total of six units.

The orchestra meets one evening each week for three hours, thus providing an opportunity to participate in this organization with the minimum of program conflicts. The repertoire includes both serious music for

symphony orchestra, and music of a more popular nature, symphonically arranged. The orchestra performs at both College and community activities.

Laboratory 3 hours.

**152—STRING ENSEMBLE (SEE NOTE)**

*Prerequisite:* Ability to play a musical instrument in a band or orchestra.

*Note:* This course may be taken for one unit each semester for a total of six units.

A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

Instruction 2 hours, directed practice by arrangement 3 hours.

**156—GUITAR I 2 UNITS**

*Prerequisite:* None.

*Note:* Students are required to have a standard six (6) string guitar to use in class and for practice. This course may be repeated for credit but not more than eight units in Music 156, 157, 158, 159 will be granted by Glendale Community College.

A course designed for students who wish to learn the elementary techniques of guitar playing. Included will be the study of basic stringing, tuning, fingering, playing techniques, notation, chording, reading of simple guitar music, and the playing of simple melodies and accompaniments.

Lecture 1 hour, laboratory 1 hour. Three (3) hours practice by arrangement.

**157—GUITAR II 2 UNITS**

*Prerequisite:* Music 156 or equivalent.

*Note:* Students are required to have a standard six (6) string guitar to use in class and for practice. This course may be repeated for credit, but not more than eight units in Music 156, 157, 158, 159 will be granted by Glendale Community College.

Music 157 continues with the study of basic classic guitar techniques. Second and third positions, scales, right hand studies, legato techniques will be covered.

Harmony and musicianship will be introduced and related to guitar fingerboard when possible.

Lecture 1 hour, laboratory 1 hour. Three (3) hours practice by arrangement.

### 158—GUITAR III 2 UNITS

*Prerequisite:* Music 157 or equivalent.

*Note:* Students are required to have a standard six (6) string guitar to use in class and for practice. This course may be repeated for credit but not more than eight units in Music 156, 157, 158, 159 will be granted by Glendale Community College.

Music 158 continues with the study of classical guitar techniques and compositions. Further study of musical qualities to be achieved on the instrument and introduction of fourth and fifth positions.

Lecture 1 hour, laboratory 1 hour. Three (3) hours practice by arrangement.

### 159—GUITAR IV 2 UNITS

*Prerequisite:* Music 158 or equivalent.

*Note:* Students are required to have a standard six (6) string guitar to use in class and for practice. This course may be repeated for credit but not more than eight units in Music 156, 157, 158, 159 will be granted by Glendale Community College.

Music 159 continues with the more advanced study of classical guitar techniques and compositions. Further study of musical qualities to be achieved on the instrument and introduction of seventh position.

Lecture 1 hour, laboratory 1 hour. Three (3) hours practice by arrangement.

### 160—PIANO I 2 UNITS

*Prerequisite:* None.

*Note:* Music 160 is not open to students having previous instruction or experience in piano playing. This course may be repeated for credit but not more than eight units in piano will be granted by Glendale Community College for Music 160, 161, 162, 163. It is recommended that students have a piano available for practice.

Music 160 is designed for students who wish to gain an elementary knowledge of piano keyboard and the rudi-

For the student with at least three years of piano study. Emphasis will be placed upon the development of each student through the study of all periods and styles of piano literature. Each student is expected to perform in recital during the semester.

Instruction 2 hours, directed practice by arrangement 5 hours.

### 161—PIANO II 2 UNITS

*Prerequisite:* Music 160 or one-half year of piano experience.

*Note:* This course may be repeated for credit but not more than eight units in piano will be granted by Glendale Community College for Music 160, 161, 162, 163. It is recommended that students have a piano available for practice.

A course for the advancement of the beginning pianist in skills, interpretation and tonal coloring.

Instruction 2 hours, directed practice by arrangement 5 hours.

### 162—PIANO III 2 UNITS

*Prerequisite:* Music 161 or one year of piano experience.

*Note:* This course may be repeated for credit but not more than eight units in piano will be granted by Glendale Community College for Music 160, 161, 162, 163. It is recommended that students have a piano available for practice.

The theory and interpretation of works from the pre-classical, classical, and romantic periods as well as modern or contemporary music. Emphasis on development of technique, style, tone-color, dynamics and phrasing.

Instruction 2 hours, directed practice by arrangement 5 hours.

### 163—PIANO IV 2 UNITS

*Prerequisite:* Music 162 or three years of piano experience.

*Note:* This course may be repeated for credit but not more than eight units in piano will be granted by Glendale Community College for Music 160, 161, 162, 163. It is recommended that students have a piano available for practice.



ments of music reading. The content of the course will be based on the assumption that students have had no previous musical training.

Instruction 2 hours, directed practice by arrangement 5 hours.

### 165—ACCOMPANIST TRAINING (SEE NOTE)

*Prerequisite:* Ability to sight read and play with ease piano literature of more than moderate difficulty.

*Note:* The student may take accompanist training for one or two units each semester. A proportionate amount of work will be required according to the number of units elected by the student and signed for at the time of registration.

A course designed to give training in the piano accompaniment of choral or instrumental groups, or solo performances.

Instruction 2 hours, directed practice by arrangement 3 hours.

### 166—ORGAN 2 UNITS

*Prerequisite:* Ability to play with ease keyboard literature of moderate difficulty.

*Note:* This course may be taken for two units each semester for a total of four semesters (8 units).

Intended for the beginner as well as the experienced organ student, the course is designed to acquaint the student with fundamentals of organ technique and repertoire. Materials assigned for study emphasize individual development in preparing for church and concert performance.

The course includes field trips to visit various pipe organs in the metropolitan area.

Instruction 2 hours, directed practice by arrangement 3 hours.

### 170—MUSIC THEATER WORKSHOP 3 UNITS

*Prerequisite:* Ability to sing with good pitch and acceptable vocal quality.

*Note:* This course may be repeated for a maximum of twelve units.

A course designed to provide training and experience in

the art of the musical stage. A major production will be the objective of the course work. All students will have the opportunity to participate in the rehearsals, and audition for principal roles will be open. It is recommended that students plan to enroll for both semester credits.

Lecture and laboratory varying.

### 172—COMMERCIAL MUSIC WORKSHOP 2 UNITS

*Prerequisite:* None.

*Note:* This course may be repeated for two units each semester for a total of four semesters (8 units).

Coaching and/or arranging for instruments and voice directed toward developing individual potential in musical comedy, popular song styling, and performance.

Lecture 2 hours, laboratory 4 hours.

### 175—SYNTHESIZER - ELECTRONIC MUSIC I 3 UNITS

*Prerequisite:* None.

A study of the synthesizer and electronic music through discussion of the history and literature and the practical use of electronic instruments.

Instruction 3 hours, directed practice by arrangement 3 hours.

### 180—FOLK GUITAR I 2 UNITS

*Prerequisite:* None.

*Note:* Students are required to have a standard six (6) string guitar to use in class and daily practice. Three (3) hours practice a week are required. This course may be repeated for credit but not more than eight units in Music 180, 181 will be granted by Glendale Community College.

Music 180 is a course prepared to teach students the basic first position keys and chords, harmonization by ear, ear training, and transposition. Basic right-hand accompaniments and performance style are also taught.

Lecture 2 hours.

### 181—FOLK GUITAR II 2 UNITS

*Prerequisite:* Music 180 or equivalent.

*Note:* Students are required to have a standard six (6) string

guitar to use in class and daily practice. Three (3) hours practice a week are required. This course may be repeated for credit but not more than eight units in Music 180, 181 will be granted by Glendale Community College.

Music 181 is a continuation of Music 180 and includes the study of introductory blues and ballad accompaniment. Country style finger-picking, treble and bass melodic line, barre chords, and additional repertoire of American Folk songs will be studied along with chording by "ear".

Lecture 2 hours.

## NATURAL HISTORY

See Biology 130.

## NURSING

See Allied Health

## NUTRITION

See Home Arts 125

# Oceanography

## 115—OCEANOGRAPHY 4 UNITS

*Prerequisite:* None.

*Note:* The student is responsible for transportation costs of approximately \$10 connected with the field study.

Introduction to physical, chemical, and geologic and biologic oceanography.

Field study will include cruises on oceanographic research vessels when possible, examination of off-shore drilling platforms and the investigation of physical and biologic phenomena along the California coast.

Lecture 3 hours per week, field study 2½ days per semester.

# Paleontology

## 101—GENERAL PALEONTOLOGY 3 UNITS

*Prerequisite:* None.

*Note:* A good high school record or second semester standing is recommended.

A survey of the classification and history of life includ-

ing both plants and animals. An interpretation of the significance of fossils as evidence of organic evolution and of the adaptations of life to its physical and biological environments. The sequences of floras and faunas as found in the rocks. An outline of man's physical development.

Lecture 3 hours.

## PERSONAL DEVELOPMENT

See Home Arts 133

# Philosophy

## 101—INTRODUCTION TO PHILOSOPHY 3 UNITS

*Prerequisite:* Sophomore standing preferred. A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

An overview of the classical and modern problems of philosophy. A consideration of the nature of knowledge, views of the cosmos or world, and the problems of truth, beauty, ethics, and theology.

Lecture 3 hours.

## 113—COMPARATIVE WORLD RELIGIONS: 3 UNITS NEAR EAST

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A comparative study of the salient ideas and philosophical developments in Zoroastrianism, Judaism, Christianity, Islam, and the primitive and national religions of the past.

Lecture 3 hours.

## 114—COMPARATIVE WORLD RELIGIONS: FAR EAST 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination

or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A comparative study of the salient ideas and philosophical developments in Hinduism, Buddhism, other Indian religions, Taoism, Confucianism, and Shinto.

Lecture 3 hours.

### 116—ETHICS

3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

An analysis of the concept of the good, the scope of morality, the deterministic controversy, the standards of evaluation, and the major ethical systems. Attention is given to contemporary positivism, John Dewey, Marxist ethics, authority as an ethical principle, intuitionism, egoistic hedonism, utilitarianism, ethical idealism, Immanuel Kant, modern Aristotelianism, and existentialism.

Lecture 3 hours.

### 117—INTRODUCTION TO LOGIC

3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A study of the structure and functions of language, inductive and deductive forms of reasoning and argumentation. Includes the study of formal argumentation and its application to ordinary language, symbolic forms of reasoning, and propositional functions. Analyzes analogical argumentation, the methods of experimental inquiry, the nature of scientific hypothesis, and probability theory.

Lecture 3 hours.

### 119—HISTORY OF PHILOSOPHY: ANCIENT PERIOD

3 UNITS

*Prerequisite:* A satisfactory score on the Reading and

Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A critical study of the philosophic systems and ideas of the Western civilization from the ancient Greeks to the end of the Medieval period, with special emphasis on the Pre-Socratics, Plato, Aristotle, Roman philosophical thinkers, and the impact of Christian thought on Western culture.

Lecture 3 hours.

### 120—HISTORY OF PHILOSOPHY: MODERN PERIOD

3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A critical study of the philosophic systems and ideas of the modern period which have had a dominant impact on Western civilization, with special emphasis on Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Nietzsche, Twentieth Century British and American philosophers.

Lecture 3 hours.

## Photography

### 101—ELEMENTS OF PHOTOGRAPHY

2 UNITS

*Prerequisite:* None.

A two-hour lecture course. Survey of still cameras; characteristics of lenses and shutters; study of negatives, paper and chemicals. Photographic nomenclature.

Lecture 2 hours.

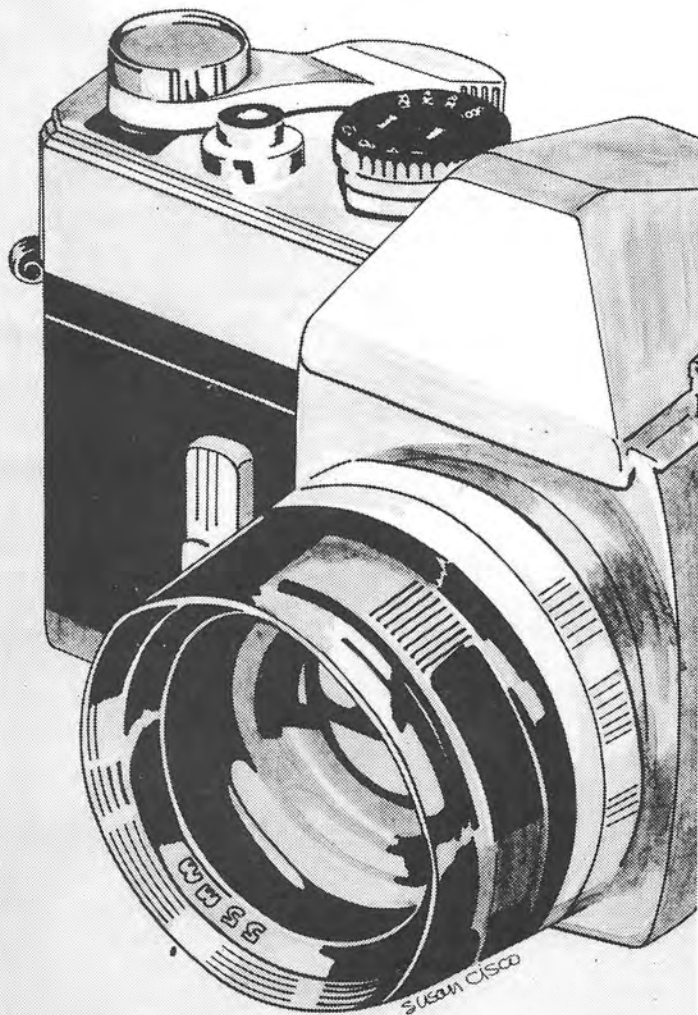
### 102—ELEMENTS OF PHOTOGRAPHY\*

2 UNITS

*Prerequisite:* Photography 101, and Art 113.

Photography 102 is lecture and laboratory practice.

Lecture 1 hour, laboratory 3 hours.



**103—INTERMEDIATE PHOTOGRAPHY\* (SEE NOTE)**

*Prerequisite:* Photography 101, (which may be taken concurrently).

*Note:* One hour is required for each one-half unit earned. May be taken for the number of units indicated on the Schedule. The course may be repeated for a total of six units.

A lecture and laboratory course designed for students who have had some experience in photography.

Lecture, laboratory —(See Note).

**105—ADVANCED PHOTOGRAPHY\* (SEE NOTE)**

*Prerequisite:* Photography 103.

*Note:* One hour is required for each one-half unit earned. May be taken for the number of units indicated on the Schedule. The course may be repeated for a total of ten units.

An advanced course for competent students with previous training and experience. Portfolio preparation. Individual assignments.

Lecture and laboratory—(See Note).

**107—SPECIAL PROJECTS—  
PHOTOGRAPHY\* (SEE NOTE)**

*Prerequisite:* None.

*Note:* Two hours are required for each unit earned. May be taken for one, two, or three units according to the Schedule. The course may be repeated for a total of six units. Art 113 is recommended.

A course to develop the talent of students unable to devote full time to photography, to offer art majors an opportunity to experiment and combine artistic ability with photo-technique, to complete projects related to a specific field; such as botany, technical graphics, advertising design.

Lecture and laboratory.

**108—PHOTOCOMMUNICATION 2 UNITS**

*Prerequisite:* Previous course in photography at college or high school or experience in the field.

*Note:* Course may be repeated once for total of 4 units.

A study of the relationship between journalism and photography. Assignments are given for reproduction in Glendale Community College and community publications.

Lecture 1 hour, laboratory 3 hours.

\*The College reserves the right to retain student work for one year for exhibit purposes.

**109—COLOR PHOTOGRAPHY I 2 UNITS**

*Prerequisite:* A photography laboratory course in high school or college, or equivalent.

Photography 109 covers the basic knowledge and steps in color film processing. Emphasis on negative and positive color is stressed.

Lecture 1 hour, laboratory 3 hours.

**110—COLOR PHOTOGRAPHY II 2 UNITS**

*Prerequisite:* Photography 109

Photography 110 is a continuation of processes offered in Photography 109. Emphasis on color printing techniques is stressed.

Lecture 1 hour, laboratory 3 hours.

**111—BASIC PHOTOGRAPHY 2 UNITS**

*Prerequisite:* None.

*Note:* No credit will be granted to students who have completed Photography 101.

This three-hour lecture and laboratory course surveys still cameras, lenses, flash units, light meters, shutters, and film as well as the kinds of paper and chemicals utilized in processing black and white pictures. Laboratory experience includes practice in composition, portraiture, and development techniques.

Lecture 2 hours, laboratory 1 hour.

# Physical Education

All first-time college students are required to enroll in physical education activity classes for their first two consecutive semesters of attendance at Glendale Community College, except that a person may be exempt upon presentation of evidence that he (1) has attained the age of 21 years, or (2) is registered for 8 units or less, or (3) has a medical excuse on file, or (4) is enrolled in special programs such as extended day only, licensed vocational nursing, or block-unit occupational programs.

It is recommended that a variety of activities be taken during a student's attendance at Glendale Community College. It may be possible to repeat the same class for more than one semester.

## 120—INTRODUCTION TO PHYSICAL EDUCATION 2 UNITS (Formerly Health and Physical Education 118)

*Prerequisite:* None.

*Note:* Recommended for physical education majors.

A course designed to acquaint prospective teachers with the social, physical, and professional demands of physical education. A preview of the profession of physical education as a whole is gained through testing, class recitation and field trips. Opportunities in health and recreation are explored.

Lecture 1 hour, laboratory 2 hours.

## 125—SPORTS OFFICIATING 2 UNITS (Formerly Health and Physical Education 105)

*Prerequisite:* Participation in basketball, volleyball, and softball.

*Note:* Recommended for physical education and recreation majors and for prospective community youth leaders.

A theory and practical course in the techniques of officiating basketball, volleyball, and softball.

Lecture 1 hour, laboratory 3 hours.

## 127—PHYSICAL EDUCATION ACTIVITIES 1-1½ UNITS (Formerly Health and Physical Education 121)

*Prerequisite:* None.

Instruction in the fundamentals of individual activities. Free and competitive participation in seasonal sports. Adapted activities to meet the needs of special students.

Laboratory 2-3 hours.

## 130—ADAPTED ACTIVITIES 1 UNIT (Formerly Health and Physical Education 195)

*Prerequisite:* A medical excuse on file with the school nurse that exempts the student from all scheduled physical education activities.

A diversified program of developmental activities for students with disabilities which prevent their participation in a regular physical education program. The emphasis is on the student's remaining abilities, not their disabilities.

Laboratory 2 hours.

## 135—BEGINNING ARCHERY 1-1½ UNITS (Formerly Health and Physical Education 163)

*Prerequisite:* None.

Instruction in the technique of archery and participation in official target archery tournaments.

Laboratory 2-3 hours.

## 136—INTERMEDIATE ARCHERY 1-1½ UNITS (Formerly Health and Physical Education 164)

*Prerequisite:* Physical Education 135

Practice in target and tournament shooting using National Archery Association Tournament Rounds.

Laboratory 2-3 hours.

## 140—BEGINNING BADMINTON 1-1½ UNITS (Formerly Health and Physical Education 165)

*Prerequisite:* None.

Instruction in the rules and practice in individual funda-



mentals, development of singles and doubles play, and competitive participation.

Laboratory 2-3 hours.

**141—INTERMEDIATE BADMINTON** 1-1½ UNITS  
(Formerly Health and Physical Education 166)

*Prerequisite:* Physical Education 140.

Additional practice and more detailed instruction in fundamentals, development of singles and doubles play, and court strategy.

Laboratory 2-3 hours.

**147—INTERMEDIATE BASEBALL** 1-2 ½ UNIT  
(Formerly Health and Physical Education 125)

*Prerequisite:* None.

Instruction in rules and game strategy. Practice in fundamental techniques of throwing, fielding, batting, and team play.

Fall Semester only. LECTURE 1/2-1 HOUR  
LABORATORY 1-3 HOUR

Laboratory 2 hours.

**148—ADVANCED BASEBALL (VARSITY)** 2½ UNITS  
(Formerly Health and Physical Education 126)

*Prerequisite:* Some previous playing experience in baseball.

*Note:* Limited to students trying out for the varsity teams.

Development of team play for competitive participation.

Spring Semester only. Daily.

Laboratory 5 hours.

**150—BEGINNING BASKETBALL** 1 UNIT  
(Formerly Health and Physical Education 127)

*Prerequisite:* None

Instruction and practice in the fundamental techniques and rules of the game. Development of team play and competitive participation.

Laboratory 2 hours.

**154—INTERMEDIATE BASKETBALL** 1 UNIT  
(Formerly Health and Physical Education 128)

*Prerequisite:* None.

Instruction in rules and game strategy, practice in fundamental techniques.

Laboratory 2 hours.

**157—ADVANCED BASKETBALL** 2½ UNITS  
(VARSITY)  
(Formerly Health and Physical Education 129)

*Prerequisite:* Some experience on an organized team.

*Note:* Limited to students competing for the varsity team.

Individual instruction and development of team play for competitive participation.

Fall Semester only. Daily.

Laboratory 5 hours.

**162—BEGINNING BICYCLING** 1 UNIT  
(Formerly Health and Physical Education 193)

*Prerequisite:* A light weight bicycle.

An introduction to cycling as a life-time activity. Emphasis on bicycling and information on safety, maintenance, and riding efficiency. Increasing personal physical fitness by cycling.

Laboratory 2 hours.

**163—INTERMEDIATE BICYCLING** 2 UNITS  
(Formerly Health and Physical Education 194)

*Prerequisite:* A light weight bicycle. Physical Education 162, or experience in bicycling and knowledge of safety and maintenance procedures.

Instruction in maintenance, safety, and riding efficiency. Increasing cycling fitness by hill climbs, time trials, and short rides. Preparing for cycling tour. Takes student into more advanced skills and techniques of bicycling accompanied by longer rides.

Lecture 1 hour, laboratory 3 hours.



**165—BODY CONTOURING AND  
CONDITIONING**                      **1-1½ UNITS**  
(Formerly Health and  
Physical Education 130)

*Prerequisite:* None.

Conditioning exercises to increase body flexibility, and increase cardio-respiratory endurance and strength of musculature in various parts of the body; to develop skilled body control with respect to agility, balance, and coordination; and to produce skills in relaxation.

Laboratory 2-3 hours.

**167—BODY MECHANICS AND  
WEIGHT TRAINING**                      **1-1½ UNITS**  
(Formerly Health and  
Physical Education 160)

*Prerequisite:* None.

Conditioning exercises to increase body flexibility and strength of musculature in various parts of the body; to develop skilled body control with respect to agility, balance, and coordination; and to produce skills in relaxation.

Laboratory 2-3 hours.

**168—INTERMEDIATE BODY MECHANICS**      **1 UNIT**  
(Formerly Health and  
Physical Education 161)

*Prerequisite:* Health Education 167.

Conditioning exercises to increase strength, body flexibility, and overall physical fitness. Instruction and practice and techniques of weight training.

Laboratory 2 hours.

**170—BOWLING**                                      **1 UNIT**  
(Formerly Health and  
Physical Education 167)

*Prerequisite:* None.

*Note:* Each student is responsible for the lane fee.

Instruction and practice in the fundamental techniques and rules of the game.

Laboratory 2 hours.

**172—CROSS COUNTRY RUNNING**                      **2½ UNITS**  
(**VARSIITY**)  
(Formerly Health and  
Physical Education 152)

*Prerequisite:* None.

*Note:* Recommended for distance runners and track students wishing to condition themselves for track.

Designed for competitive participation.

Fall Semester only. Daily.

Laboratory 5 hours.

**174—ETHNIC DANCE**                                      **1-1½ UNITS**  
(Formerly Health and  
Physical Education 169)

*Prerequisite:* Physical Education 192 or equivalent.

Instruction and participation for recreational groups in American cowboy, square, circle, and folk dances.

Laboratory 2-3 hours.

**176—JAZZ TECHNIQUE I**                                      **1-1½ UNITS**  
(Formerly Health and  
Physical Education 196)

*Prerequisite:* None.

Physical Education 176 provides an opportunity to learn the functions of the body, in relationship to music; the opportunity to develop and condition the body for Jazz dance; and the opportunity to meet the demand for professional dance in theater today.

Laboratory 2-3 hours.

**177—JAZZ TECHNIQUE II**                                      **1-1½ UNITS**  
(Formerly Health and  
Physical Education 197)

*Prerequisite:* None.

Physical Education 177 provides an opportunity to further the student's knowledge of Jazz dance; study more technical detail in the development and conditioning of the body for Jazz, and to further meet the demands for professional dance in theater today.

Laboratory 2-3 hours.

**179—MODERN DANCE TECHNIQUE 1-2 UNITS**  
 (Formerly Health and  
 Physical Education 175)

*Prerequisite:* None.

Physical Education 179 provides an opportunity for personal development in modern dance technique.

Laboratory 2-4 hours.

**181—MODERN DANCE I 1-1½ UNITS**  
 (Formerly Health and  
 Physical Education 172)

*Prerequisite:* None.

A wide variety of concrete experiences in movement relative to the acquisition of concepts for a structure of understanding of modern dance as an art form is presented.

Laboratory 2-3 hours.

**182—MODERN DANCE II 1-1½ UNITS**  
 (Formerly Health and  
 Physical Education 173)

*Prerequisite:* Physical Education 181 or equivalent.

An increased understanding of the principles that govern movement, an increased sensitivity to perception, a greater ability to control the body as an instrument of expression, and an understanding of the use of space, time, and force factors related to the basic principles that govern art forms.

Laboratory 2-3 hours.

**184—MODERN DANCE PRODUCTION 2 UNITS**  
 (Formerly Health and  
 Physical Education 174)

*Prerequisite:* A grade of "A" in Physical Education 181 or Physical Education 182 or equivalent.

The course provides practical experience in utilization of knowledge and understanding in modern dance as an art form. Opportunity is provided for student choreography and participation in modern dance productions.

Laboratory 4 hours.

**186—MOVEMENT FOR MUSICAL THEATER 1-1½ UNITS**  
 (Formerly Health and  
 Physical Education 198)

*Prerequisite:* None.

Physical Education 186 provides an opportunity for studying the problems of stage movement, character movement, and simple dance movement as related to musical theater. Attention is also given to the musical demands placed upon the singer who wishes to perform in this area of the theater.

Laboratory 2-3 hours.

**189—BEGINNING SOCIAL DANCING 1 UNIT**  
 (Formerly Health and  
 Physical Education 170)

*Prerequisite:* None.

Instruction and practice in the fundamental skills of social dance.

Laboratory 2 hours.

**190—INTERMEDIATE SOCIAL DANCING 1 UNIT**  
 (Formerly Health and  
 Physical Education 171)

*Prerequisite:* Physical Education 189 or knowledge of basic steps.

Instruction and practice in the fundamental skills of social dance.

Laboratory 2 hours.

**192—SQUARE DANCE 1-1½ UNITS**  
 (Formerly Health and  
 Physical Education 168)

*Prerequisite:* None.

Instruction and participation for recreational groups in square dance.

Laboratory 2-3 hours.

**195—FOOTBALL THEORY (SEE NOTE)**  
 (Formerly Health and  
 Physical Education 120)

*Prerequisite:* Physical Education 198 taken concurrently.

*Note:* Recommended for physical education majors. This course may be taken for two units each semester for a total of two semesters (4 units).

Theory and development of offensive and defensive formations.

Lecture 4 hours.

## 202 PHYSICAL EDUCATION

---

- 197—INTERMEDIATE FOOTBALL** 1 UNIT  
(Formerly Health and Physical Education 133)  
*Prerequisite:* None.  
Instruction and practice in techniques of individual offense and defense.  
Spring Semester only.  
Laboratory 2 hours.
- 198—ADVANCED FOOTBALL (VARSITY)** 2½ UNITS  
(Formerly Health and Physical Education 134)  
*Prerequisite:* Previous experience on an organized team.  
*Note:* Limited to students trying out for varsity team.  
Development of team play for competitive participation.  
Fall Semester only. Daily.  
Laboratory 5 hours.
- 200—TOUCH FOOTBALL** 1 UNIT  
(Formerly Health and Physical Education 132)  
*Prerequisite:* None.  
Instruction and practice in fundamentals, with the development of team play and competition.  
Laboratory 2 hours.
- 202—BEGINNING GOLF** 1 UNIT  
(Formerly Health and Physical Education 176)  
*Prerequisite:* None.  
Instruction and practice in the fundamentals of golf.  
Laboratory 2 hours.
- 203—INTERMEDIATE GOLF** 1 UNIT  
(Formerly Health and Physical Education 177)  
*Prerequisite:* Physical Education 202 or equivalent.  
Advanced instruction and practice on the golf course.  
Laboratory 2 hours.
- 205—ADVANCED GOLF (VARSITY)** 2 UNITS  
(Formerly Health and Physical Education 135)  
*Prerequisite:* Some previous playing experience in golf.  
*Note:* Limited to students competing for the varsity team.  
Development of play for competitive participation.  
Spring Semester only.  
Laboratory 4 hours.
- 207—BEGINNING GYMNASTICS** 1 UNIT  
(Formerly Health and Physical Education 136)  
*Prerequisite:* None.  
Instruction and practice in the fundamental techniques of tumbling and apparatus.  
Laboratory 2 hours.
- 213—HIKING AND BACKPACKING** 2 UNITS  
(Formerly Health and Physical Education 179)  
*Prerequisite:* None.  
Prepares the student with knowledge and experience in the skills necessary for camping, hiking, and backpacking. Local hiking and backpacking experience. Compass and map reading, trail cooking, clothing, safety, and equipment are discussed and practiced.  
Lecture 1 hours, laboratory 3 hours.
- 216—JOGGING** 1-1½ UNITS  
(Formerly Health and Physical Education 180)  
*Prerequisite:* None.  
An introduction to jogging as a life-time activity. To make the student aware of the physiological benefits derived from jogging.  
Laboratory 2-3 hours.
- 219—MARTIAL ARTS** 1-1½ UNITS  
(Formerly Health and Physical Education 183)  
*Prerequisite:* None.  
This course is divided into four segments: Karate, Aikido,

Judo, and Juijitsu. Karate, Aikido, and Judo run concurrently with student instructors in charge of each small unit (if qualified personnel is available). The Juijitsu unit is run last with the total class.

Laboratory 2-3 hours.

**222—PADDLE TENNIS** **1 UNIT**  
**(Formerly Health and Physical Education 188)**

*Prerequisite:* None.

Instruction and practice in the basic strokes, fundamental techniques, and rules of the game. A sport very similar to regular tennis.

Laboratory 2 hours.

**224—RACKETBALL** **1 UNIT**  
**(Formerly Health and Physical Education 184)**

*Prerequisite:* None.

Introduction and practice in the fundamental techniques and rules of the game. Each student is responsible for a minimal YMCA court fee.

Lecture 1 hour, laboratory 1 hour.

**229—SOCCER** **1 UNIT**  
**(Formerly Health and Physical Education 140)**

*Prerequisite:* None.

Instruction and practice in the basic fundamentals, techniques, and rules. Development of team play, with emphasis on offensive and defensive strategy.

Laboratory 2 hours.

**230—ADVANCED SOCCER** **2½ UNITS**  
**(Formerly Health and Physical Education 141)**

*Prerequisite:* None.

*Note:* Some experience playing soccer is recommended.

Instruction and practice in intercollegiate play including techniques, rules, strategy, and history as well as comprehensive physical training.

Lecture 2 hours, laboratory 3 hours.

**237—BEGINNING SWIMMING** **1-1½ UNITS**  
**(Formerly Health and Physical Education 112)**

*Prerequisite:* Inability to maintain oneself in deep water.

Instruction and practice in the fundamentals of swimming and survival in the water.

Lecture ½ hour, laboratory 1½ hours.

**238—INTERMEDIATE SWIMMING** **1-1½ UNITS**  
**(Formerly Health and Physical Education 113)**

*Prerequisite:* Ability to maintain oneself in deep water.

Instruction and practice in the swimming strokes and the development of endurance.

Laboratory 2 hours.

**240—ADVANCED SWIMMING AND DIVING (VARSITY)** **2½ UNITS**  
**(Formerly Health and Physical Education 114)**

*Prerequisite:* Some previous swimming or diving experience.

Instruction and practice in fundamental techniques for competitive participation. Daily.

Lecture ½ hour, laboratory 9½ hours.

**242—BEGINNING DIVING** **1-1½ UNITS**  
**(Formerly Health and Physical Education 156)**

*Prerequisite:* Must be able to swim.

Instruction and practice in the fundamentals of the five diving groups, including the approach and entry.

Lecture ½ hour, laboratory 1½ hours.

**245—INTERMEDIATE WATER POLO** **1-1½ UNITS**  
**(Formerly Health and Physical Education 157)**

*Prerequisite:* Be able to maintain oneself in deep water.

Instruction in roles and game strategy, practice in fundamental techniques.

Laboratory 2 hours.

**247—ADVANCED WATER POLO (VARSITY) 2½ UNITS**  
(Formerly Health and Physical Education 158)

*Prerequisite:* Some previous experience or an advanced swimmer.

Instruction and practice in fundamental techniques of water polo. Development of team play for competitive participation.

Fall Semester only. Daily.

Laboratory 5 hours.

**250—SENIOR LIFESAVING 1½ UNITS**  
(Formerly Health and Physical Education 159)

*Prerequisite:* Physical Education 238 or pass test to qualify.

Instruction and practice in all phases of lifesaving as set up by the American Red Cross.

Lecture ½ hour, laboratory 1½ hours.

**253—WATER SAFETY INSTRUCTION 1½ UNITS**  
(Formerly Health and Physical Education 162)

*Prerequisite:* Must be 18 years old or over and must hold current Senior Life Saving card.

A course in water safety instruction, the successful completion of which will qualify the student to receive the American Red Cross Water Safety Instructor's Certificate.

Lecture ½ hour, laboratory 1½ hours.

**256—SYNCHRONIZED SWIMMING 1-1½ UNITS**  
(Formerly Health and Physical Education 181)

*Prerequisite:* Physical Education 238 or equivalent.

Instruction and practice in aquatic stunts and rhythmic swimming. Participation in synchronized swimming routines.

Laboratory 2 hours.

**259—UNDERWATER SAFETY INSTRUCTION 1-1½ UNITS**  
(Formerly Health and Physical Education 178)

*Prerequisite:* Physical Education 238 or equivalent.

To teach the student the art of skin diving and the use and safety factors of SCUBA. Diving physics and physiology of diving. Marine life and environment.

Lecture 1 hour, laboratory 1 hour.

**261—BEGINNING TENNIS 1-1½ UNITS**  
(Formerly Health and Physical Education 185)

*Prerequisite:* None.

Instruction and practice in the basic strokes, fundamental techniques and rules of the game.

Laboratory 2-3 hours.

**262—INTERMEDIATE TENNIS 1-1½ UNITS**  
(Formerly Health and Physical Education 186)

*Prerequisite:* Some previous playing experience in tennis.

Instruction and practice in individual fundamentals, development of team play and court strategy.

Laboratory 2-3 hours.

**263—ADVANCED TENNIS 2 UNITS**  
(Formerly Health and Physical Education 187)

*Prerequisite:* Physical Education 262 or equivalent.

Development of advanced techniques for competitive participation with other community colleges.

Laboratory 4 hours.

**266—ADVANCED TENNIS (VARSITY) 2½ UNITS**  
(Formerly Health and Physical Education 147)

*Prerequisite:* Some previous playing experience in tennis.

*Note:* Limited to students trying out for the varsity team.

Development of team play for competitive participation.

Offered Spring Semester only. Daily.

Laboratory 5 hours.

**267—ADVANCED TENNIS (VARSITY) 2½ UNITS**  
(Formerly Health and Physical Education 147)

*Prerequisite:* Physical Education 262 or equivalent.

*Note:* Fall Semester, coeducational; Spring Semester, women only.

Development of advanced techniques for competitive participation with other community colleges.

Laboratory 5 hours.

**270—INTERMEDIATE TRACK AND FIELD** 1 UNIT  
(Formerly Health and Physical Education 150)

*Prerequisite:* None.

Instruction and practice in fundamental techniques of running and field events.

Laboratory 2 hours.

**272—ADVANCED TRACK AND FIELD (VARSITY)** 2½ UNITS  
(Formerly Health and Physical Education 151)

*Prerequisite:* None.

*Note:* Limited to students trying out for the varsity team.

Designed for competitive participation.

Spring Semester only. Daily.

Laboratory 5 hours.

**274—BEGINNING VOLLEYBALL** 1-1½ UNITS  
(Formerly Health and Physical Education 189)

*Prerequisite:* None.

Instruction and practice in volleyball techniques with team tournaments.

Laboratory 2-3 hours.

**275—INTERMEDIATE VOLLEYBALL** 1-1½ UNITS  
(Formerly Health and Physical Education 190)

*Prerequisite:* Physical Education 274 or equivalent.

Instruction and practice in volleyball techniques with team tournaments for experienced players.

Laboratory 2-3 hours.

**276—ADVANCED VOLLEYBALL** 2 UNITS  
(Formerly Health and Physical Education 191)

*Prerequisite:* Physical Education 275 or equivalent.

Development of advanced techniques in volleyball for competitive participation with other community colleges.

Laboratory 5 hours.

**281—ADVANCED VOLLEYBALL (VARSITY)** 2½ UNITS  
(Formerly Health and Physical Education 155)

*Prerequisite:* Previous playing experience in volleyball.

*Note:* Recommended for physical education majors. Limited to students trying out for varsity volleyball teams.

Instruction and practice in individual fundamentals, development of team play and court strategy for competitive participation.

Laboratory 5 hours.

**292—YOGA—TV only** 2 UNITS  
(Formerly Health and Physical Education 192)

*Prerequisite:* None.

The course involves basic yogic postures, breathing and meditation techniques intended to increase body agility, suppleness and establish a regimen of healthful living. The course of thirty programs covers the various yoga postures, methods, and exercises. New yogic exercises and breathing techniques are introduced, demonstrated, explained in detail, and their value emphasized. Meditational and inspirational concepts are also presented at appropriate times.

30 one-half hour programs.

## Physical Science

**131—GENERAL PHYSICAL SCIENCE** 4 UNITS

*Prerequisite:* None.

The course is designed to give a cultural appreciation of the scientific method and an elementary working knowledge of the fields studied. Emphasis is placed on the

methods by which scientific facts are established and related by means of scientific theories. The course is an integrated survey of physics, chemistry, geology, and astronomy. Elementary mathematical concepts are introduced as required.

Lecture 4 hours, laboratory 2 hours.

## Physics

### 101—ENGINEERING PHYSICS 5 UNITS

*Prerequisite:* Physics 111 with a grade of "C" or better or physics taken in high school with a grade of "C" or better and Mathematics 103 with a grade of "C" or better. (Mathematics 104 must be taken concurrently or prior to taking Physics 101.)

*Note:* Physics 101 is restricted to engineering and science majors.

Mechanics and properties of matter. An intensive study of motion, dynamics and statics, oscillations, wave motion, and sound, with emphasis upon vector analytical methods.

Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.

### 102—ENGINEERING PHYSICS 4 UNITS

*Prerequisite:* Physics 101 with a grade of "C" or better and Mathematics 104 with a grade of "C" or better. (Mathematics 105 must be taken concurrently or prior to taking Physics 102.)

A study of static electricity including Gauss' Law, potentials and electric fields, direct and alternating current theory, laws of magnetism and magnetic properties of matter, electro-magnetism and induced currents, Maxwell's Equations and radiation theory.

Lecture 3 hours, laboratory 2 hours, problem and quiz session 1 hour.

### 103—ENGINEERING PHYSICS 5 UNITS

*Prerequisite:* Physics 101 with a grade of "C" or better and Mathematics 104 with a grade of "C" or better. (Mathematics 105 must be taken concurrently or prior to taking Physics 103.)

Heat, thermodynamics, optics, and modern physics. An intensive study of the concept of fluids, temperature, heat, calorimetry, heat transfer, thermodynamics, entropy, and kinetic theory. A thorough presentation of geometrical and physical optics with considerable emphasis on modern physics including quantum physics, wave mechanics, and special relativity.

Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.

### 105—GENERAL PHYSICS 4 UNITS

*Prerequisite:* Physics or chemistry (any one of: Physics 110 or Physics 111, one year of physics in high school, Chemistry 141 or Chemistry 110, or one year of chemistry in high school) and trigonometry (one semester of trigonometry in high school or Mathematics 102 which may be taken concurrently with Physics 105).

*Note:* Required of pre-dental and pre-medical students.

A general course including properties of matter, mechanics, heat, wave motion, and sound. Lectures, demonstrations, problems, and laboratory work. Ability to use a slide rule is recommended.

Lecture 3 hours, laboratory 3 hours.

### 106—GENERAL PHYSICS 4 UNITS

*Prerequisite:* Physics 105.

*Note:* Required of pre-dental and pre-medical students.

A general course including the study of light, electricity, magnetism, and modern physics. Lectures, demonstrations, problems, and laboratory work. Ability to use a slide rule is recommended.

Lecture 3 hours, laboratory 3 hours.

### 110—INTRODUCTION TO PHYSICS 3 UNITS

*Prerequisite:* Mathematics 141 and Mathematics 140, or one year of algebra and one year of geometry in high school.

*Note:* This course may not be taken for credit by students who have completed Physics 101, Physics 105, or Physics 111.

A brief presentation of some of the more important and usual phenomena in physics with classroom demonstra-

tions and lectures in mechanics, heat, sound, light, electricity, magnetism, and modern physics.

Lecture 3 hours.

### 111—ENGINEERING PREPARATORY PHYSICS 3 UNITS

*Prerequisite:* Mathematics 102 with a grade of "C" or better, or trigonometry in high school with a grade of "C" or better. Mathematics 103 should be taken concurrently by engineering and science majors. Engineering 141 recommended.

*Note:* This course may not be taken for credit by students who have completed Physics 101 or Physics 105.

A mathematical course in general physics with emphasis on mechanics designed to prepare students for engineering physics (Physics 101, 102, 103), particularly those students who have not had an adequate high school course in physics. Emphasis is upon analysis and solution of problems.

Lecture 3 hours.

### APPLIED PHYSICS See Technical Education 145

### PHYSIOLOGY See Biology 121.

### POLICE SCIENCE See Administration of Justice

## Political Science

### 101—INTRODUCTION TO GOVERNMENT 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Political Science 101 allows only one unit of credit for students who have completed Political Science 105 or Social Science 131-132. Recommended for students seeking an A.B. (4-year) degree.

An introduction to the principles and problems of government in the United States with emphasis placed on the Federal government and the interplay of democratic politics at the national level. Political Science 101 meets the California State requirement in the United States Constitution.

Lecture 3 hours.

### 102—MODERN COMPARATIVE GOVERNMENTS 3 UNITS

*Prerequisite:* Political Science 101 or Political Science 105, or Social Science 131-132 and a satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A comparative study of the constitutional principles, governmental institutions, political parties, and recent history of policy and action of selected foreign governments.

Lecture 3 hours.

### 103—INTRODUCTION TO WORLD POLITICS 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

The development of an intellectual framework which will order the student's thoughts on world politics and enable him to analyze and evaluate present and potential issues and events that affect international power and the pursuit of peace.

Lecture 3 hours.

### 104—AMERICAN POLITICAL CULTURE 3 UNITS

*Prerequisite:* Completion of one of the following courses: Political Science 101, 102, 103, 105, 106, 108, or equivalent.

Political Science 104 is an examination of American attitudes towards politics and government through an analysis of American literature.

Lecture and discussion 3 hours.



**105—AMERICAN POLITICAL IDEALS 2 UNITS**

*Prerequisite:* None.

*Note:* It is recommended that the California State requirement in American History be completed prior to enrollment in this course. Political Science 105 allows no credit for students who have completed Political Science 101 or Social Science 131-132. Recommended for students seeking an Associate in Arts (2-year) degree. Students who have successfully completed Political Science 106 will be granted only two units of credit for completion of Political Science 151. Students who have successfully completed Political Science 105 and Political Science 106 will not be granted credit for Political Science 151.

A study of the theory and practices of the American democratic political process and formal institutional functions. Special emphasis is placed on the Federal Constitution and how it operates in the context of political democracy. The role of parties and groups in politics is analyzed. Political Science 105 meets the California State requirement in the United States Constitution.

Lecture 2 hours.

**106—AMERICAN STATE AND LOCAL GOVERNMENT 1 UNIT**

*Prerequisite:* None.

*Note:* It is recommended that this course be taken after the completion of the Constitution requirement. This course of Social Science 131-132 is a graduation requirement. No credit is allowed for this course to students having credit in Social Science 131-132. Students who have successfully completed Political Science 106 will be granted only two units of credit for completion of Political Science 151. Students who have successfully completed Political Science 105 and Political Science 106 will not be granted credit for Political Science 151.

A study of the origins, structures, and functions of California government and politics with emphasis on the State level, but including the city, county and district levels.

Lecture 2 hours.

**107—PROBABILITY AND STATISTICS 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination of a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year of high school algebra or Mathematics 141 or equivalent.

An introduction to the areas of probability and statistics. A consideration of the methods of gathering, classifying, and analyzing statistical data.

Lecture 3 hours.

**108—URBAN POLITICS 3 UNITS**

*Prerequisite:* Completion of one of the following courses: Political Science 101, 102, 103, 104, 105, 106; Social Science 132; or equivalent.

Classroom and field work in the process and problems of local government. After classroom preparation, students will work with local agencies on mutually agreed tasks as part of a course-required research project. The aim of the course is to develop the student's knowledge of his community and the nation's metropolitan areas.

Lecture 3 hours, laboratory 6 hours.

**110—CONTEMPORARY WORLD PROBLEMS 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Current problems of too many people, too little food, and too little space. Accent is on the political and sociological solutions to the problems posed by excess fertility and declining food per capita in select areas of the world.

Lecture 3 hours.

**111—THE MODERN MIDDLE EAST: ITS POLITICAL AND ECONOMIC IMPACT 3 UNITS**

*Prerequisite:* None.

A survey of the countries of the Middle East: historical antecedents, peoples, cultures, religions; the impact of colonialism and imperialism on the emergence of mod-

ern states and their impact upon modern world politics and economics.

Lecture 3 hours.

### 151—FUNDAMENTALS OF GOVERNMENT 3 UNITS AND YOU

*Prerequisite:* None.

*Note:* Students who have successfully completed Political Science 106 will be granted only two units of credit for completion of Political Science 151. Students who have successfully completed Political Science 105 and Political Science 106 will not be granted credit for Political Science 151.

Political Science 151 is designed for the non-transfer student; this course deals with the individual as a student, as a worker, and as a member of society. It examines the benefits, controls, and rights of the individual which result from our political system as it operates through government.

Meets the requirements for the A.A. Degree in the United States Constitution and state and local government.

Lecture 3 hours.

### INTRODUCTION TO SOCIAL SCIENCE See Social Science 131-132.

## Printing

### 101—SURVEY OF GRAPHIC ARTS 2 UNITS FUNDAMENTALS

*Prerequisite:* None.

*Note:* This course may be taken for two units each semester for two semesters. Any combination of Printing 101, 102, and 103 may not earn more than 12 semester units. Students may not transfer from any of these three courses to any other of the three courses after the end of the third week of the semester.

A survey course in letterpress and offset lithographic processes for persons with no prior printing experience. Provision is made for students to explore the broad scope and to discover the opportunities for graphic

communications in our society. Course content includes basic principles and techniques of shop practices through a series of lecture-laboratory experiences.

Lecture 1 hour, laboratory 2 hours.

### 102—LETTERPRESS PRESSWORK 2 UNITS PROCEDURES

*Prerequisite:* Printing 101 or one year of printing in high school, or one year in the printing trade.

*Note:* This course may be taken for two units each semester for two semesters. Any combination of Printing 101, 102, and 103 may not earn more than 12 semester units. Students may not transfer from any of these three courses to any other of the three courses after the end of the third week of the semester.

Instruction covers basic press operations, imposition, make-ready, correct use of inks, and paper handling. Practical job experience is attained by running forms made of type, half-tones, engravings, and forms requiring special preparation such as perforating rule forms, die-cutting, scoring, and numbering. Lubrication, press nomenclature, and maintenance are also emphasized.

Lecture 1 hour, laboratory 2 hours.

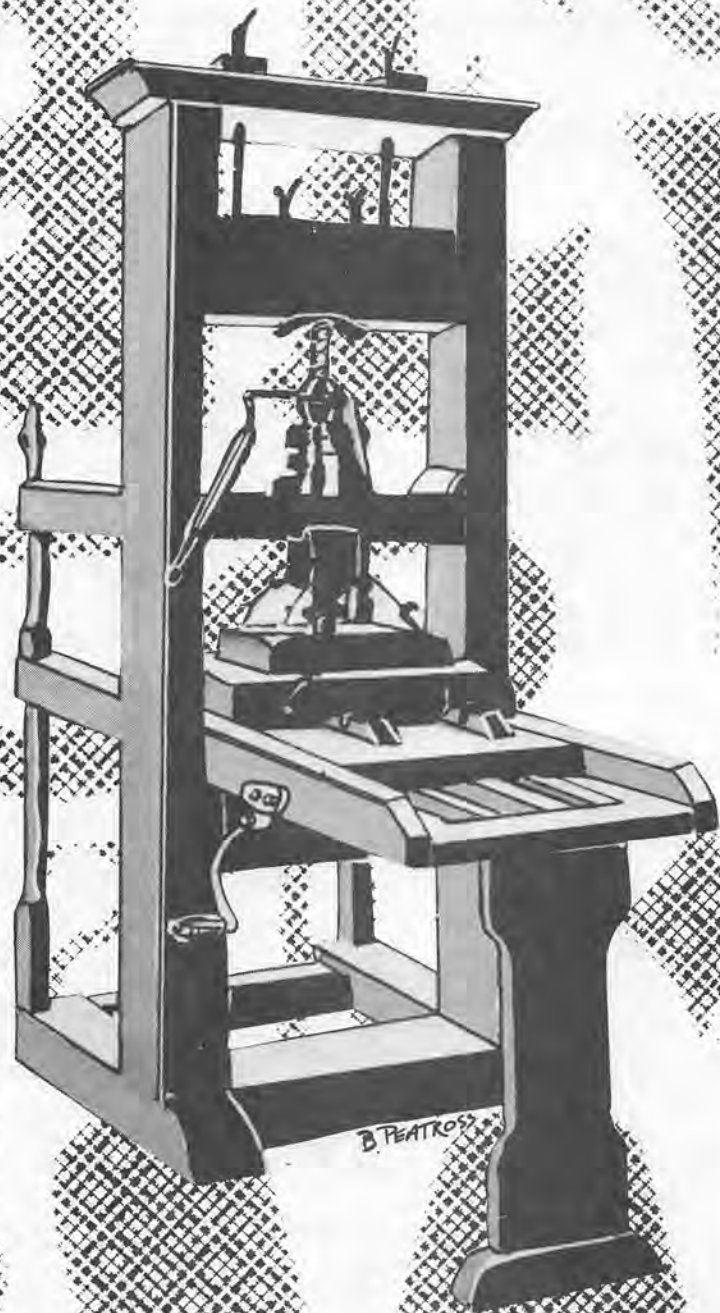
### 103—OFFSET PRINTING PROCESS 2 UNITS

*Prerequisite:* Printing 101 or one year of printing in high school, or one year in the printing trade.

*Note:* This course may be taken for two units each semester for three semesters. Any combination of Printing 101, 102, and 103 may not earn more than 12 semester units. Students may not transfer from any of these three courses to any other of the three courses after the end of the third week of the semester.

Covers history, job planning, type composition, copy preparation, line and half-tone photography, color reproduction, darkroom procedures, layout and stripping, platemaking, offset inks, papers and bindery work, presswork, legal restrictions, drawing instruments. Lubrication, press nomenclature, and maintenance are also emphasized.

Lecture 1 hour, laboratory 2 hours.





**104—ADVANCED OFFSET PROCESSES 2 UNITS**

*Prerequisite:* Printing 103.

Designed to help the student improve his skills, knowledge, and techniques in offset printing. Continued study of half-tone negatives, duo-tones, contact printing, veloxing, brownline, and color key techniques. Covers film scribing, multiple burns, step and repeat, and offset press problems. Provides additional training in the operation of larger offset presses. Emphasizes nomenclature, lubrication, and maintenance procedures.

Lecture 1 hour, laboratory 2 hours.

# Psychology

**101—GENERAL PSYCHOLOGY 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-test of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Sophomore standing preferred.

An intensive study of human behavior; emotions, learning, memory, motivation, and thinking; the individual differences in ability, intelligence, personality, maturation, and development; personal applications.

Lecture 3 hours.

**102—ADVANCED GENERAL PSYCHOLOGY 3 UNITS**

*Prerequisite:* Psychology 101.

An advanced study of the principles of general psychology with special emphasis on the experimental method in the study of behavior. Special consideration of recent findings in psychology and areas of contemporary research attention.

Lecture 3 hours.

**107—PROBABILITY AND STATISTICS 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year of high school

algebra or Mathematics 141 or equivalent.

An introduction to the areas of probability and statistics. A consideration of the methods of gathering, classifying, and analyzing statistical data.

Lecture 3 hours.

**110—PERSONAL AND SOCIAL ADJUSTMENT 2 UNITS**

*Prerequisite:* None.

A course designed to acquaint the student with basic principles of human behavior that may help him to deal effectively with life situations (*viz.*, finding himself in society, interpersonal relations, career decision making, and educational endeavors).

Lecture 2 hours.

**111—DYNAMICS OF EFFECTIVE GROUPS I 3 UNITS**

*Prerequisite:* Guidance 196 or equivalent.

An introduction to the dynamics of group interactions with an emphasis upon the individual's first hand experience as the group studies itself. Under supervision, the factors involved in problems of communication, effective emotional responses, and personal growth will be highlighted.

Lecture 3 hours.

**112—DYNAMICS OF EFFECTIVE GROUPS II 3 UNITS**

*Prerequisite:* Psychology 111.

Study of the group process as a means of changing behavior. Various techniques of group action will be emphasized — *i.e.*, role playing, psychodrama, directive, non-directive, transactional analysis. Student will also view these techniques in reference to their own behavior patterns and then in reference to their working roles in community agencies, such as social services, guidance clinics, health facilities, and schools.

Lecture 3 hours.

**131—MARRIAGE AND FAMILY LIVING 3 UNITS**

*Prerequisite:* None.

Basic information and attitudes for creating a successful marriage; including such topics as courtship, engage-

ment, finances, sexual life, in-laws, mixed marriages, children, family interaction, and resolving conflicts. Lectures, discussions, films, temperament tests, readings and reports.

Lecture 3 hours.

### PRE-SCHOOL CHILD

See *Family and Consumer Studies 135*.

## Public Administration

### 101—PUBLIC SERVICE ADMINISTRATION 3 UNITS PRACTICES

*Prerequisite:* None.

Public Administration 101 is a survey course dealing with management analysis techniques, systems analysis and systems implementation; organization audits and appraisal; work and time measurement techniques; the organization (chart) — its structure and communications system; forms and records management; manuals and other administrative directives; work simplification; techniques of work-flow and process charting; reports control.

Lecture 3 hours.

### 102—FEDERAL ORGANIZATIONS, 3 UNITS FUNCTIONS, AND RELATIONSHIPS

*Prerequisite:* Supervision 101 or Public Administration 101 or Political Science 101.

*Note:* This course allows only two units of credit for students who have received credit in Political Science 105.

The American Federal System in the administration of public policy; its constitutional characteristics; Federal, State, Regional, and Local Organization structure and relationships; functional and administrative coordination; Federal Executive Boards; the Regulatory Commission; Regional Authorities; the Government Corporation; Executive Office of the President; Congressional Committees; the Federal Judiciary structure; the Cabinet.

Lecture 3 hours.

### 103—GOVERNMENTAL FINANCIAL 3 UNITS MANAGEMENT

*Prerequisite:* None.

A survey of federal, state, and local government fiscal policies; the appropriation process; accounting; tax, revenue, and debt administration; financial controls, reporting, and analysis; budget preparation, authorization, and execution; Planning Programming Budgeting System; inter-governmental fiscal relationships; cost analysis; audit.

Lecture 3 hours.

## Real Estate

Classes in Real Estate are offered for students interested in the field of real estate. The courses are designed to accommodate the real estate education needs of students in preparing for real estate careers as well as those already engaged in real estate services. The curriculum provides instruction designed to assist those wishing to obtain real estate salesman and real estate broker licenses. Most of the courses are scheduled in the Extended Day program. A Certificate of Completion may be earned.

### 101—REAL ESTATE PRINCIPLES 3 UNITS

*Prerequisite:* None.

The fundamental real estate course covering the basic laws and principles of California real estate, gives understanding, background, and terminology necessary for advanced study in specialized courses. Of assistance to those preparing for the real estate salesman license examination.

Lecture 3 hours.

### 102—REAL ESTATE AND YOU 2 UNITS —TV only

*Prerequisite:* None.

Real Estate and You via television is a survey course covering basic laws of California real estate, providing an understanding, background, and terminology about the fundamentals of Real Estate.

**103—REAL ESTATE ECONOMICS 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

*Note:* It is recommended that Real Estate 105 or Real Estate 107 be taken prior to this course or that the student be a holder of a valid California Real Estate license.

Deals with those trends and factors which affect the value of real estate; the nature and classification of land economics; the development of property, construction and subdivision, economic values and real estate evaluation; real estate cycles and business fluctuations, residential market trends, real property, and special purpose property trends.

Lecture 3 hours.

**105—REAL ESTATE PRACTICE 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

Day-to-day operations in real estate roles and brokerage, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics. Applies toward State's educational requirements for the broker's examination.

Lecture 3 hours.

**107—LEGAL ASPECTS OF REAL ESTATE 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

A study of California real estate law, including rights incident to property ownerships and management, agency, contracts, and application to real estate transfer, conveyancing, probate proceedings, trust deeds, and foreclosure, as well as recent legislation governing real estate transactions. Applies toward education requirement of broker's examination.

Lecture 3 hours.

**109—REAL ESTATE FINANCE 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

*Note:* It is recommended that Real Estate 105 or Real Estate 107 be taken prior to this course or that the student be a holder of a valid California Real Estate license.

Analysis of real estate financing, including lending policies and problems in financing transactions in residential, apartment, commercial, and special purpose properties. Methods of financing properties emphasized.

Lecture 3 hours.

**111—REAL ESTATE APPRAISAL 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

*Note:* It is recommended that Real Estate 105 or Real Estate 107 be taken prior to this course or that the student be a holder of a valid California Real Estate license.

Covers the purposes of appraisals, the appraisal process, and the different approaches, methods, and techniques used to determine the value of various types of property. Emphasis is on residential and single-unit property.

Lecture 3 hours.

**113—PROPERTY MANAGEMENT 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

Provides a basic course in the management of income properties. Analyzes specific types of properties that are managed. Formulates and discusses the major problems of leasing, collections, rent schedules, tenant selection, neighborhood analysis, purchasing, evictions, preventive maintenance, depreciation, record keeping, and economics of property. Compiles a set of procedures for practical utilization in property management.

Lecture 3 hours.

**115—ESCROW PROCEDURES—BASIC 3 UNITS**

*Prerequisite:* Real Estate 101 or equivalent.

An introduction to the terminology, legal aspects, and process in the escrow function in real estate transactions. Emphasis is on the process of taking, processing, and closing of escrow.

Lecture 3 hours.

# Recreation Leadership

**105—PHYSICAL EDUCATION AND RECREATION FOR THE HANDICAPPED (Formerly Health and Physical Education 115) 2 UNITS**

*Prerequisite:* None.

Designed to train people to provide physical education and recreational activities for the handicapped, this course will help the student understand and appreciate needs, desires, and problems related to various handicaps as well as learn how to provide such activities.

Lecture 2 hours, laboratory 2 hours.

**109—RECREATION LEADERSHIP (Formerly Health and Physical Education 119) 2 UNITS**

*Prerequisite:* None.

*Note:* Recommended for physical education majors and students entering the recreation field.

A basic training course for playground directors and recreation leaders. A study in the organization and administration of community and school recreation programs. Emphasis is placed on training in leadership techniques and on the development of programs in recreation, sports, and athletics.

Lecture 2 hours, laboratory 1 hour.

# Russian

**110—BASIC CONVERSATIONAL RUSSIAN I 2 UNITS**

*Prerequisite:* None.

*Note:* This course may be taken as a credit-no credit course at the student's option.

Fundamentals of grammar and correct pronunciation so that the student can employ a small working vocabulary in conversation and writing. The ability to read simple Russian is also developed.

Lecture 2 hours, laboratory 1 hour.

SCIENCE  
See Physical Science 131

# Social Science

**101—INTRODUCTION TO EDUCATION 2 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

An introductory course designed to acquaint the student with the field of teaching, with the personal and professional qualifications needed by the successful teacher, with the duties and opportunities of the professional educator, and with the availability of teacher training facilities and requirements.

Lecture 2 hours.

**102—EDUCATIONAL PARTICIPATION IN THE COMMUNITY I 3 UNITS**

*Prerequisite:* Social Science 101 or equivalent and enrollment in 5 additional units.

*Note:* This course may be repeated for a maximum of 6 units.

Classroom and field experiences in community agencies; such as, social services, guidance clinics, health facilities, and schools. Weekly class lectures and discussion concerning current problems and methods being used in today's schools and service agencies. Logs detailing weekly field experiences including reactions to and problems discovered in relation to the experience.

Lecture 1 hour, laboratory/fieldwork 10 hours to be arranged.

**103—EDUCATIONAL PARTICIPATION IN THE COMMUNITY II 3 UNITS**

*Prerequisite:* Social Science 102 and enrollment in 5 additional units.

*Note:* This course may be repeated for a maximum of 6 units.

Classroom and field experiences in community agencies, such as, social service agencies, guidance clinics, health facilities, and schools. Discussions concerning the work of



the paraprofessional in the fieldwork setting. Detailed logs describing weekly experiences are required.

Lecture 1 hour, laboratory fieldwork 10 hours to be arranged.

### 121—ETHNIC AND RACIAL MINORITIES 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* This course is included in the list of State-approved college courses for school staff preparation in the history, culture, and current problems of racial and ethnic minorities (Article 3.3, Education Code Section 13344.1).

A survey of the major ethnic and racial minorities in the United States. A basis for a better understanding of the socio-economic, cultural and political conditions among the following minorities: Afro-American, Mexican-American, Chinese, Japanese, and American Indian.

Lecture 3 hours.

### 122—MEXICAN-AMERICAN STUDIES 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "C" average in United States History and Government courses in high school or 12 units of college courses with a "C" average or consent of the instructor.

*Note:* This course is included in the list of State-approved college courses for school staff preparation in the history, culture, and current problems of racial and ethnic minorities (Article 3.3, Education Code Section 13344.1).

A study of the Mexican-Americans in contemporary society. An analysis of the role, accomplishments and contributions of the Mexican-American people.

Lecture 3 hours.

### 131—INTRODUCTION TO SOCIAL SCIENCE 4 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination

or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Social Science 131-132 allows only six units of credit for students having credit in Political Science 101 or Political Science 105 or History 110. If only Political Science 106 has been completed for credit, seven units are allowed. If either Political Science 101 or Political Science 105 and History 110 are completed for credit, then only four units are allowed for Social Science 131-132; if History 117-118 are completed for credit, then only two units are allowed for Social Science 131-132.

The inter-relationship of the social sciences and their application to the problems of group living in the twentieth century are developed through a survey of the principal facts and concepts of history and sociology. Problems are studied in relationship to the historical development of the United States. The student is led to acquire a body of knowledge through an analysis of historical and contemporary social problems. This course (if both semesters are completed) meets the California State requirements in American History, the American Constitution, and State and Local Government.

Lecture 4 hours.

### 132—INTRODUCTION TO SOCIAL SCIENCE 4 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

*Note:* Social Science 131-132 allows only six units of credit for students having credit in Political Science 101 or Political Science 105 or History 110. If only Political Science 106 has been completed for credit, seven units are allowed. If either Political Science 101 or Political Science 105 and History 110 are completed for credit, then only four units are allowed for Social Science 131-132; if History 117-118 are completed for credit, then only two units are allowed for Social Science 131-132.

The inter-relationship of the social sciences and their application to the problems of group living in the twentieth century are developed through a survey of the principal facts and concepts of political science and



economics. Problems are studied in relationship to governments in the United States. The student is led to acquire a body of knowledge through an analysis of contemporary political and economic problems. This course (if both semesters are completed) meets the California State requirements in American History, the American Constitution, and State and Local Government.

Lecture 4 hours.

#### 141—STUDENT LEADERSHIP 2 UNITS

*Prerequisite:* None.

*Note:* Open to all students interested in developing leadership skills. Officers of all student organizations are urged to enroll. This course may be repeated for a total of four (4) units.

Fundamentals of student leadership. A study of leadership theory, parliamentary law, committee techniques, democratic organization, principles and functions of student government and group leadership problems.

Lecture 2 hours, laboratory 3 hours by arrangement.

#### 150—THE ASCENT OF MAN—TV only 3 UNITS

*Prerequisite:* None.

Students will demonstrate their knowledge of intellectual history tracing the major events in the biological and cultural evolution of man. The course traces the development of science and art as expressions of the special gifts that characterize man and that have made him unique among the animal species. Emphasis is placed on the processes of thought and imagination which are involved in the various attempts made by man to analyze and understand the nature of the universe and of himself.

13 one-hour programs.

#### 155—AN INTRODUCTION TO HUMANITIES—TV only 3 UNITS

*Prerequisite:* None.

An Introduction to Humanities considers great works of art through the ages (painting, sculpture, literature, music, architecture, dance) as they relate to the problems of man and also as they relate to the student. A search for similarities and differences in some of man's

more important attempts to say something about who he is, how he lives, and why he lives in such fashion. An examination of how, at widely separated points in time, artists and writers have viewed significant aspects of man and his world.

A Television Series of forty-five half-hour television programs.

## Sociology

#### 101—INTRODUCTION TO SOCIOLOGY 3 UNITS

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

An introduction to sociology, its methods and resources, the study of society and culture, personality organization and disorganization, social interaction and social processes, human groups and collective behavior, role and status, class and stratification, ethnic and other intergroup relations, ecology and urban sociology, population and social change.

Lecture 3 hours.

#### 102—INTRODUCTION TO SOCIOLOGY 3 UNITS

*Prerequisite:* Sociology 101.

The development of a definition and criteria of social problems. An analysis of selected social problems, juvenile delinquency, crime, intergroup tensions, family disorganization, poverty, dependency, personality problems as related to social problems within the overall theoretical framework of the influence of social movements and institutional change.

Lecture 3 hours.

#### 105—SOCIAL GERONTOLOGY: AGING IN CONTEMPORARY SOCIETY 3 UNITS

*Prerequisite:* None.

An introduction to the study of social gerontology, aging and its implications for the individual and society utilizing a multi-disciplinary approach.

Lecture 3 hours.

**107—PROBABILITY AND STATISTICS 3 UNITS**

*Prerequisite:* A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average. One year of high school algebra or Mathematics 141 or equivalent.

An introduction to the areas of probability and statistics. A consideration of the methods of gathering, classifying, and analyzing statistical data.

Lecture 3 hours.

# Spanish

**101—BEGINNING SPANISH 5 UNITS**

*Prerequisite:* A satisfactory score on the English Placement Examination or a grade of "B" or better in English 191 or a grade of "C" or better in English 120.

Fundamentals of Spanish grammar. The student is trained to pronounce Spanish correctly, to acquire a small working vocabulary which he uses in conversation and writing, and to read simple Spanish.

In addition to regular class hours, the student must spend two half-hour periods a week in the laboratory.

Recitation 3 hours, language laboratory 2 hours.

**102—BEGINNING SPANISH 5 UNITS**

*Prerequisite:* Spanish 101, or two years of Spanish in high school completed within the past two years.

Spanish 102 is based upon the reading and interpretation of idiomatic Spanish prose, with a further study of pronunciation and review of the fundamentals of Spanish grammar.

In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

Lecture 3 hours, language laboratory 2 hours.

**103—INTERMEDIATE SPANISH 4 UNITS**

*Prerequisite:* Spanish 102, or three years of Spanish in high school completed within the past two years.

Spanish 103 includes further study of Spanish grammar and idioms, intensive and extensive reading in contemporary colloquial Spanish, and written composition.

In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

Lecture 4 hours.

**104—INTERMEDIATE SPANISH 4 UNITS**

*Prerequisite:* Spanish 103, or four years of Spanish in high school completed within the past two years.

A continuation of Spanish 103 with reading of more difficult literary texts, and increased emphasis on conversation.

In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

Lecture 4 hours.

**105—CONVERSATIONAL SPANISH 2 UNITS**

*Prerequisite:* One year of college Spanish, or three years of high school Spanish, or equivalent.

Spanish 105 is a course of intensive practice in oral expression and comprehension of spoken Spanish.

Lecture (and participation) 2 hours.

**106—ADVANCED CONVERSATIONAL SPANISH 2 UNITS**

*Prerequisite:* Spanish 105 or equivalent.

Spanish 106 is designed for those students who wish more advanced conversation on more controversial topics. It fills a general education requirement.

Lecture 2 hours.

**110—BASIC CONVERSATIONAL SPANISH I 2 UNITS**

*Prerequisite:* None.

*Note:* No credit will be granted to those students who have taken Spanish 102 prior to Spanish 110 or who take Spanish 102 concurrently with Spanish 110. This course may be taken as a credit-no credit course at the student's option.

An introduction to Spanish with emphasis on developing essential skills in communication. The verbal active

method used stresses oral expression. The course develops working knowledge of reading and writing as well. Includes use of tapes or cassettes in the language laboratory.

Lecture 2 hours, laboratory 1 hour.

**111—BASIC CONVERSATIONAL SPANISH II** **2 UNITS**

*Prerequisite:* Spanish 110

*Note:* No credit will be granted to those students who have taken Spanish 102 prior to Spanish 111 or who take it concurrently with Spanish 111. This course may be taken as a credit-no credit course at the student's option.

An introduction to Spanish with emphasis on developing essential skills in communication. The verbal active method used stresses oral expression. The course develops working knowledge of reading and writing as well. Includes use of tapes or cassettes in the language laboratory.

Lecture 2 hours, laboratory 1 hour

**115—SPANISH FOR THE SPANISH SPEAKING I** **4 UNITS**

*Prerequisite:* A native Spanish-speaking background.

Spanish 115 provides intensive training in oral and written Spanish for students who have a familiarity with the language but little or no formal instruction in it. Structure of the language, oral communication, fundamentals of grammar, and composition are included.

Lecture 4 hours, laboratory 1 hour.

**116—SPANISH FOR THE SPANISH SPEAKING II** **4 UNITS**

*Prerequisite:* Spanish 115

Continuing study of Spanish for students with native Spanish-speaking background, with emphasis on reading comprehension, composition, oral communication, and a more advanced study of the structure of the language. This course will meet the prerequisite for Spanish 103.

Lecture 4 hours, laboratory 1 hour.

**124—ENGLISH TRANSLATIONS OF MASTERPIECES OF HISPANIC LITERATURE** **3 UNITS**

*Prerequisite:* English 101

A study of samplings of the best in Hispanic essays, novels and short stories, translated into English for the non-Spanish speaking student.

Lecture 3 hours.

**125—SURVEY OF SPANISH LITERATURE** **3 UNITS**

*Prerequisite:* Spanish 104 and Spanish 106, or equivalent.

Spanish 125 is a lower division survey of the literature of peninsular Spain, from the ballads of the Medieval period to the twentieth century. Reading and class lectures are entirely in Spanish and are supplemented by tapes, records and films.

Lecture 3 hours.

**126—SURVEY OF SPANISH AMERICAN LITERATURE** **3 UNITS**

*Prerequisite:* Spanish 104 and Spanish 106 or equivalent.

Spanish 126 is a lower division survey of the literature of Spanish America, from the prehispanic literature of the Incas, as recorded by el Inca Garcilaso de la Vega, and the histories of the Mayas in the Popol Vuh, to the literature of the twentieth century. Reading and lectures will be entirely in Spanish. Tapes and records will be used to supplement text and lectures.

Lecture 3 hours.

**138—SPANISH FOR SCHOOL PERSONNEL** **2 UNITS**

*Prerequisite:* None.

Minimum fundamentals of Spanish grammar and correct pronunciation so that teachers and other school personnel can communicate with parents and pupils whose language is Spanish. Dialogues are emphasized.

Lecture and practice 2 hours.

**146—LANGUAGE FOR BUSINESS — BILINGUAL 5 UNITS**

*Prerequisite:* A satisfactory score on the English Placement Examination; and completion of, or concurrent enrollment in, either Spanish 103 or Spanish 115 (for students with native Spanish speaking background) or equivalent.

*Note:* Credit will be granted for only one; Business 146 or Spanish 146. This course allows three units of credit for students who have completed English 101 and 4 units of credit for students who have completed English 120, 131, or 191.

Spanish 146/ Business 146 is a course designed to help bilingual secretarial and business students achieve proficiency in the grammar, punctuation, vocabulary, syllabication, and sentence structure of both languages.

Lecture and discussion 5 hours

## Speech

**101—PUBLIC SPEAKING 3 UNITS**

*Prerequisite:* A satisfactory score on the English Placement Examination or a grade of "B" or better in English 191 or a grade of "C" or better in English 120.

Emphasis is placed upon organization and delivery of extemporaneous speeches. Experience is provided in group discussion, oral reading, and informative and persuasive speaking. This course satisfies speech requirements of those expecting to transfer to specialized and professional work in colleges and universities.

Lectures 3 hours.

**102—PUBLIC SPEAKING 3 UNITS**

*Prerequisite:* Speech 101.

Emphasis is placed on the development of further effectiveness in the organization and delivery of the complete speech and on the preparation of students for effective participation in group discussion and debate.

Lecture 1 hour, laboratory 2 hours.

**121—FUNDAMENTALS OF SPEECH 2 UNITS**

*Prerequisite:* None.

Training in oral communication to assist the student in eliminating stage fright and developing self-confidence,

poise, and an acceptable speaking voice. Exercises in voice development, in reading aloud, and in preparing extemporaneous speeches.

Lecture 2 hours.

**139—COMMUNICATION WITH THE DEAF 2 UNITS**

*Prerequisite:* None.

Provides instruction in sign language, finger-spelling, and lipreading. Combined, they are referred to as total communication. The history and purposes of such signs and practice in their use are included.

Lecture and practice 3 hours.

**STATISTICS**

See **Economics 107**

**Political Science 107**

**Psychology 107**

**Sociology 107**

## Technical Education

(Formerly Technical Graphics)

**143—TECHNICAL MATHEMATICS 2 UNITS**  
(Formerly Mathematics 143)

*Prerequisite:* A satisfactory score on the Mathematics Proficiency Examination or Mathematics 150.

A review of the basic principles of arithmetic covered briefly. Practical algebra through quadratic equations will be covered. The work is illustrated by practical problems drawn from the industrial field.

Lecture 3 hours.

**144—TECHNICAL MATHEMATICS 3 UNITS**  
(Formerly Mathematics 144)

*Prerequisite:* Technical Education 143 or a satisfactory score on the Mathematics Proficiency Examination plus Mathematics 141 or one year of high school algebra.

Phases covered include: percent, ratio and proportion, areas and volume, trigonometry, logarithms, slide rule, and mathematical tables.

Lecture 3 hours.



**145—APPLIED PHYSICS** **3 UNITS**  
 (Formerly Physics 145)

*Prerequisite:* A satisfactory score on the Mathematics Proficiency Examination or Technical Education 143 or Mathematics 150.

The application of physics to industry. Fundamental concepts, pressure and buoyancy in fluids, simple and compound machines, hydraulic and pneumatic machines, work, energy, and power, composition and resolution of forces, heat—its measurement, transfer, and conversion to work, light and color, magnetism, atomic energy, and electronics.

Lecture 3 hours.

**PERSPECTIVE GRAPHICS**  
 See Architecture 105

**TECHNICAL MATHEMATICS**  
 See Technical Education 143, 144

## Television Repair

(SEE ELECTRONICS)

**101—TELEVISION REPAIR** **4 UNITS**

*Prerequisite:* None.

This is the first of a series of courses which will enable the student to diagnose and repair the defective television receiver with the end objective being to develop those skills required to perform a satisfactory home service call. Basic television receiver circuits, theory and service techniques. The study of high voltage circuits, deflection circuits and test equipment.

Lecture 3 hours, laboratory 3 hours.

**102—TELEVISION REPAIR** **4 UNITS**

*Prerequisite:* Television Repair 101 or one year of high school or community college electronics or one year in the trade.

Advanced theory and servicing of black and white television receivers. Front end alignment and fringe area problems.

Lecture 3 hours, laboratory 3 hours.

**103—TELEVISION REPAIR** **4 UNITS**

*Prerequisite:* Television Repair 102.

Advanced circuit analysis and receiver techniques. Colorimetry, adjustment techniques and test equipment.

Lecture 3 hours, laboratory 3 hours.

**104—TELEVISION REPAIR** **4 UNITS**

*Prerequisite:* Television Repair 103.

Advanced circuit analysis and service techniques. Set up techniques; test equipment application to modern color television receivers. The student will become familiar with the components and fundamental circuits used in color receivers and obtain experience in adjusting, testing and servicing the complete color receiver.

Lecture 3 hours, laboratory 3 hours.

## Theater Arts

**103—FUNDAMENTALS OF ACTING** **2 UNITS**  
 (VOCAL INTERPRETATION)

*Prerequisite:* None.

A course planned to introduce the student to the theory and basic mechanics of vocal control and interpretation necessary for the successful study of acting.

Lecture 1 hour, laboratory 3 hours.

**104—FUNDAMENTALS OF ACTING** **2 UNITS**  
 (BODY CONTROL)

*Prerequisite:* Theater Arts 103.

Theater Arts 104 deals with the development of bodily control and interpretation and the integration of a controlled voice and body.

Lecture 1 hour, laboratory 3 hours.

**105—THEATER ARTS WORKSHOPS** **1-3 UNITS**

*Prerequisite:* Theater Arts 103-104 either completed or in progress, or equivalent.





*Note:* The student may take Theater Arts 105 for 1-3 units each semester for a total of 12 units. A proportionate amount of work will be assigned according to the number of units elected.

Students enrolled in this course will be formed into a company to present the Glendale Community College drama productions. Each student will be assigned to work in accordance with his interests and talents. The following phases of a producing theater are involved: acting, directing, playwriting, business administration, and publicity.

Rehearsal laboratory consists of 10-15 hours per week. Usually ten weeks are spent preparing a production. Two productions are attempted each semester.

### **109—STAGE MAKE-UP** **1 UNIT**

*Prerequisite:* None.

Instruction in the use and application of all types of stage make-up. Students from this course will compose the make-up crew for all College productions.

Theater Arts majors should have at least one semester of make-up.

Laboratory 3 hours.

### **110—STAGE MAKE-UP** **1 UNIT**

*Prerequisite:* Theater Arts 109

A continuation of Theater Arts 109 with emphasis on unusual character make-up.

Laboratory 3 hours.

### **121—STAGE SCENIC DESIGN** **2 UNITS**

*Prerequisite:* Theater Arts 131 (3 units) or equivalent.

Theater Arts 121 is a practical course in instruction in the fundamentals of designing stage scenery. All the sets used in Glendale Community College productions are designed by this class. Some ability in art, costuming, or theater techniques is helpful.

Laboratory 3 hours.

### **122—STAGE SCENIC DESIGN** **2 UNITS**

*Prerequisite:* Theater Arts 121.

A continuation of Theater Arts 121 with more emphasis

on originality of design.

Laboratory 3 hours.

### **123—STAGE COSTUME** **(SEE NOTE)**

*Prerequisite:* Home Arts 117 and/or Home Arts 111. (Home Arts 117 may be taken concurrently).

*Note:* Students may earn a maximum of two units in one semester for a total of eight units.

Designing and construction of group costumes for stage, ensembles, etc. This course includes the planning for and the buying of suitable materials, design and color schemes, the design and construction of costumes and accessories, arrangement and maintenance of the costume wardrobe. Students in this course design and make costumes for school dramatic programs.

Lecture 2 hours, laboratory 6 hours.

### **131—TECHNICAL STAGE** **(SEE NOTE)**

*Prerequisite:* None.

*Note:* The student may take Theater Arts 131 for 1-3 units each semester for a total of nine units. A proportionate amount of work will be required according to the number of units elected by the student and signed for at the time of registration.

A laboratory class in the construction, painting, and handling of scenery and scenic effects and in the operation of the stage. All technicians for staging the various Glendale Community College productions will be drawn from this class. It is required that class members have free time to devote to rehearsals and performances. Theater Arts majors should have at least one semester of technical stage. See also Theater Arts 105.

### **134—PRACTICAL AND THEORETICAL ASPECTS OF STAGE LIGHTING** **2 UNITS**

*Prerequisite:* Theater Arts 131 (6 units) or equivalent.

This course is for the advanced student in technical theater. It is a course designed to develop the skills and techniques which are necessary for the student's participation and appreciation of the art of stage lighting. It is hoped that the student will develop, as a result of familiarity with stage lighting practice, a sense of bal-



ance and rhythm with regard to color, light and shadow, and mass.

Laboratory 5 hours.

## VOCATIONAL NURSING

See Allied Health

# Welding

## 117—GENERAL WELDING

3 UNITS

*Prerequisite:* None.

This course includes the principles and techniques involved in general welding, and the uses of metallic arc welding, inert arc welding and the studies of the basic metals. Emphasis is also placed on teaching techniques for industrial arts majors. The student is given experience in applying the principles by individual practice on a sequence of selected plates of various metals.

Lecture 1 hour, laboratory 5 hours.

## 118—GENERAL WELDING

3 UNITS

*Prerequisite:* Welding 117.

This course carries on the advanced studies of metals and alloys in industry as: monel, stainless steel, titanium, beryllium, zirconium, aluminum and magnesium. Emphasis is placed on more heli-arc welding and the studies of atomic-arc welding and other new techniques of fabrication. Principles of pattern development are discussed and developed. Emphasis is also placed in techniques needed for certification of welders.

Lecture 1 hour, laboratory 5 hours.

## 121—OCCUPATIONAL WELDING

6 UNITS

*Prerequisite:* None.

Welding 121 is the first in a series of occupational welding courses designed to prepare the student for employment in the welding field. It covers the theory of welding processes, welding safety, terms, basic metallurgy; and the fundamentals of metallic arc and oxy-acetylene welding.

Lecture 3 hours, laboratory 9 hours.

## 122—OCCUPATIONAL WELDING

6 UNITS

*Prerequisite:* Welding 121 or equivalent.

Welding 122 is second in a series of occupational welding courses designed to prepare the student for employment in the welding field. It covers fundamentals of blueprint reading, interpreting shop drawings and sketches, advanced metallic arc and oxy-acetylene welding procedures, and provides an introduction to T.I.G. welding.

Lecture 3 hours, laboratory 9 hours.

## 123—OCCUPATIONAL WELDING

6 UNITS

*Prerequisite:* Welding 122 or equivalent.

Welding 123 is third in a series of occupational welding courses designed to prepare the student for employment in the welding field. It covers basic preparation for welding certification, advanced metallic arc welding, advanced oxy-acetylene welding, advanced T.I.G. welding, and the specific welding assignments to prepare the student for the practical phase of the certification examination.

Lecture 3 hours, laboratory 9 hours.

## 124—OCCUPATIONAL WELDING

6 UNITS

*Prerequisite:* Welding 123 or equivalent.

Welding 124 is fourth in a series of occupational welding courses designed to prepare the student for employment in the welding field. It will cover final preparation for the oral, written, and manipulative examinations in welding certification categories, such as; metallic arc, oxy-acetylene welding, and T.I.G.

Lecture 3 hours, laboratory 9 hours.

# Work Experience

See Cooperative Education.



The requirements for college and university entrance with advanced standing vary significantly.

It is important for a student who plans to transfer to a four-year college or university at the close of his community college studies to decide early which college he will enter. Having decided this, he should plan his program in accordance with the requirements of that institution.

In general, a student who is eligible for admission to a university at the time of twelfth year graduation is admitted to that institution with full credit for all courses which are listed by that university as first two-year courses which he has completed at Glendale Community College, provided he has maintained a satisfactory record in all work taken since twelfth year graduation.

Ordinarily a student with high school deficiencies is not permitted to transfer to a higher institution in advanced standing until he has proven his ability to do college work. He may remove his high school grade and subject deficiencies by completing specific courses and maintaining a specific grade-point average.

#### **Transfers to the University of California**

An applicant from the community college is subject to regulations governing admissions in advanced standing. He may not disregard his college record and apply for admission in freshman standing. Applicants for admission to advanced standing must meet the requirements listed below. See the University of California UNDERGRADUATE ADMISSIONS CIRCULAR for details.

#### **Admission in Advanced Standing**

Effective Fall Quarter, 1973, eligibility for admission of advanced standing students who are California residents was established according to statement to follow:

1. Students who were eligible for admission to the University as a freshman, may be admitted in advanced standing any time after having established an overall grade-point average of 2.0 or better in another college or university.
2. Students who were not eligible for admission as a freshman only because of not having studied one or more of the required high school subjects, may be admitted after:
  - a. establishing an overall grade-point average of 2.0 or better in another college or university,
  - b. completing with a grade of "C" or better, appropriate college courses in the high school subjects that are deficient and
  - c. completing twelve or more quarter or semester units of transferable college credit beyond high school graduation or having successfully passed the CEEB tests required of freshman applicants.

Note: Students not choosing to make up subject deficiencies, may become eligible by the provision which follows:

3. Students who were ineligible for admission to the University as a freshman because of low scholarship or a combination of low scholarship and a lack of required subjects may be admitted after having earned a grade-point average of 2.0 or better in at least 84 quarter units (56 semester units) of college credit in courses accepted by the University for transfer.\*

\*The advanced standing requirements for admission listed here are experimental and will be in effect for applicants applying to terms from the Fall Quarter 1973 through the Spring Quarter 1978 only.

**Admission in Freshman Standing**

Completion of the following subjects, and a "B" average in work completed in grades 10 to 12 with no grades less than "C" in these subjects in grades 9-12.

Examination Requirement: All freshman applicants must submit acceptable scores from the College Entrance Examination Board Tests listed below.\*\*

If applying for admission to the fall quarter, tests should be taken no later than January of the senior year. The following tests are required:

1. Scholastic Aptitude Test (The Verbal and Mathematics scores submitted from this test must be from the same sitting.)
2. Three Achievement Tests, which include (a) English Composition, (b) Social Studies or Foreign Language, and (c) Mathematics or Science.

If student is a California applicant and his scholarship average in the required high school subjects is 3.0 to 3.09 inclusive, he must earn a total score of 2500 or higher in these tests. The scores of all applicants will be used to assist the University in counseling, guidance, and placement, and when possible, to satisfy the Subject A requirement.

- (a) History (U.S. History or U.S. History and Civics) .....1 unit
- (b) English .....3 units
- (c) Mathematics (college preparatory courses in subjects such as algebra, geometry, trigonometry, calculus, elementary functions, matrix algebra or courses combining these topics) .....2 units
- (d) Science (a year course in one laboratory science, taken in the 10th, 11th, or 12th grade) .....1 unit
- (e) Foreign Language (in one language) .....2 units
- (f) Additional .....1 unit  
A year course in any laboratory science completed subsequent to the laboratory science used for (d) or Advanced Mathematics or Foreign Language. (If in a language other than that offered under (e) 2 units will be required.

Complete details on admission to the University will be found in the University of California UNDERGRADUATE ADMISSIONS CIRCULAR.

\*The grade-point average is determined by dividing the total number of acceptable units attempted into the number of grade points earned on those units. Courses completed with a grade lower than "C" may be repeated up to a maximum of 16 quarter units without penalty. Scholarship standard is expressed by a system of grade points and grade-point averages in courses acceptable for advanced standing credit in the University of California. Grade points are assigned as follows: for each unit of A, 4 points; B, 3 points; C, 2 points; D, 1 point; Inc. and F, no points.

**University of California, Berkeley,  
College of Letters and Science**

\*\*This requirement also applies to advanced standing applicants who have completed less than 12 quarter or semester units of transferable college credit.

There are three breadth requirements. The first, a two-course sequence in reading and composition, must be completed without delay.\* Completion of the third breadth requirement, described below, may be spread over the four years of college attendance. In fact, until a student declares a major, he cannot define the fields from which he must select the courses to satisfy this breadth requirement.

All major programs offered in the College of Letters and Science are grouped under the fields of natural science, social science, and humanities. The student must complete a minimum of eight courses, each with a value of at least two semester units, in a field or fields outside the general area of his major subject. Courses required in the major which are listed below in a field other than that of the major may be included in the eight required courses, even if they are offered in the major department. Sequences such as Chemistry 101-102, which have a value of eight or ten semester units, will complete three courses for the requirement. A sequence of two one-unit courses will be accepted as one course.

1. General University Requirements:

English Subject A—Students completing English 101 in Glendale Community College with grade of "C" or better satisfy this requirement.

2. Reading and Composition:

English 101-102

3. Foreign Language:

French 101, German 101, Spanish 101

4. Eight courses outside the major field:

a. Natural Science

Anthropology 101

Astronomy 101

Biology 101, 102, 112, 120, 121, 122, 123, 124

Chemistry 101, 102, 103, 105, 106

Economics 107

Geography 101

Geology 101 or 110, 105

Mathematics 103, 104, 105, 106

Mineralogy 101

Paleontology 101

Physics 101, 102, 103, 105, 106, 110, 111

b. Social Science

Anthropology 102, 103

Economics 101, 102, 105, 111

Geography 102

\*History 101, 102, 103, 104, 106, 107, 108, 109, 110, 112, 117, 118, 119, 120

Political Science 101, 102, 103, 110

Psychology 101, 102

Social Science 121, 131, 132

Sociology 101, 102

\*Students who complete the major in history have satisfied this requirement, since history courses are listed in both social science and humanities fields.

c. Humanities

Art 101, 102, 103, 106, 107, 108, 116, 117, 118, 119, 120, 121, 134, 135, 136, 137, 138, 139, 140, 142

English 105, 106, 109, 110, 122, 123, 125, 126, 198

French 101, 102, 103, 104

German 101, 102, 103, 104

History 101, 102, 103, 104, 107, 108, 109, 110, 112, 117, 118, 119, 120

Music 110, 111, 112, 113, 114, 120, 125, 126, 131, 132, 133, 144, 145, 151, 152

Philosophy 101, 113, 114, 116, 117, 119, 120

Spanish 101, 102, 103, 104

Theater Arts 103, 104

\*The second, a requirement in foreign languages, usually satisfied in high school by completion of two years of one foreign language with minimum grades of "C". If not completed in high school, it may be satisfied in college.

**University of California, Davis  
College of Letters and Science**

The requirement for junior standing is the completion of not less than 60 units of college work. Following are the breadth requirements for the A.B. degree in the College.

a. General University Requirements:

English Subject A—Students completing English 101 in Glendale Community College with grade "C" or better satisfy this requirement.

American History and Institutions—Satisfied with "C" grades in American History and Government courses in high school.

b. An examination in English composition to be taken at Davis no earlier than the final quarter of the sophomore year.

c. Foreign Language

For the A.B. degree: Satisfy by electing one of the following options:

1. In high school, earn a qualifying score on a CEEB Achievement Test in a foreign language. A score of 500 will be accepted for any exam taken prior to July 1, 1976.

2. In college, complete 8 units (or the equivalent) in one foreign language;

3. At UCD, earn a satisfactory score on a Foreign Language Placement or Proficiency Examination;

4. In high school, (tenth, eleventh, or twelfth grade), earn a "B" average for one year's work beyond the second-year level course. (This option is open only to students who graduated from high school prior to June, 1975, and who transfer in advanced standing to UCD no later than the spring quarter, 1977).

d. A total of 35 units from the Humanities, Social Sciences, and Natural Sciences areas with a minimum of 8 and a maximum of 14 units in any one area. (A

maximum of 4 of the 8 units offered in satisfaction of the Foreign Language Requirement and all other foreign language units may be counted toward the Humanities Requirement.) For the B.S. degree: Complete a minimum of 14 units from the Social Sciences and/or Humanities areas; 60 units in the Natural Sciences.

1. Humanities

Art 101, 102, 103, 108, 113, 114, 115, 118, 119, 120, 121, 134, 135, 136, 137, 138, 139, 140  
 English 102, 105, 106, 109, 110, 122, 123, 125, 126, 198  
 French 103, 104  
 German 103, 104  
 History 101, 102, 103, 104, 106, 107, 108, 109, 110, 112, 117, 118, 119, 120  
 Music 101, 104, 105, 106, 107, 108, 109, 114, 120, 125, 126, 130, 131, 132, 133, 141, 151  
 Philosophy 101, 113, 114, 116, 117  
 Spanish 103, 104  
 Speech 101, 102  
 Theater Arts 103, 104

2. Social Science

Anthropology 102, 103  
 Economics 101, 102, 105, 111  
 Geography 102, 105  
 Political Science 101, 102, 103, 105, 106, 110  
 Psychology 101, 102  
 Social Science 121, 131, 132  
 Sociology 101, 102

3. Natural Science

Anthropology 101  
 Astronomy 101  
 Biology 101, 102, 112, 120, 121, 122, 124  
 Chemistry 101, 102, 103, 105, 106, 110  
 Geography 101  
 Geology 101, 105, 110  
 Mathematics 103, 104, 105  
 Mineralogy 101  
 Paleontology 101  
 Physics 101, 102, 103, 105, 106, 110, 111

**University of California, Irvine**

The Academic Structure. There are five schools central to the academic structure at Irvine: Biological Sciences, Fine Arts, Humanities, Physical Sciences, and Social Sciences. Each of these schools offers majors or areas of specialization under its broad subject field. In addition to these five schools, majors and degrees are offered in three independent programs: Comparative Culture (socioculture studies), Information and Computer Science, and Social Ecology (man and his cultural and physical environment).

Professional education is offered in the School of Engineering, the Graduate School of Administration, and the College of Medicine. Teaching credentials are offered through the Office of Teacher Education. A wide range of majors and emphases is available within all these areas.

No specific courses or areas of study are required for breadth at Irvine, only a broad distribution of study outside one's major. A student must take 12 semester units in one school outside the major and 6 semester units in each of two other schools outside the major. Other requirements are determined by the schools, and departments. Credit by examination is offered in a number of fields. Independent study is widely utilized and is encouraged as a vital procedure for learning.

**University Requirements.** English (Subject A) — English 101 or a satisfactory score on the CEEB Achievement Test in English Composition, the Advanced Placement Examination in English, or the California State University and College Equivalency Test.

American History and Institutions — Completion of Social Science 131-132 or History 117-118, or History 110, or Economics 111, plus Political Science 101 or 105: passage of an examination offered by the University or satisfactory course work in the high school (two semesters), or a score of 500 or higher on the CEEB Achievement Test in American history and social studies.

**General Requirements.** Two three-semester unit courses in each of two schools other than the school of concentration, and four three-semester courses in a third school other than the school of concentration. (*Note:* This is a graduation requirement, and need not be completed before transfer.)

### **School and Departmental Requirements**

#### School of Biological Sciences

Physics 101-102, Mathematics 103-104

Chemistry 101-102, 105-106

Biology 101-102, 112, 125

English 101-102 and one year of Humanities, Philosophy, History or Foreign Language

#### School of Fine Arts

Art History: Art 101, 102, 103, 3 courses in dance, drama, or music (see UCI catalog); two years in a single European language at university level.

Art — Studio: Art 113-115, 101-102, 103, one year in lower division studio courses in sequence.

Dance Department: Theater Arts 103-104 (at least 4 units), Physical Education 179, 181, 182, 184

Drama Department: Theater Arts 103-104 (at least 4 units, 105, 121, 123, 134; Physical Education 181, 182

Music Department: Music 101, 104, 105, 106, 107, 108, 109, 125, 126, command of piano; participation in chorus, orchestra, or chamber music each year.



Fine Arts Interdisciplinary. Film Studies: Theater Arts 103-104; two years in a single European language at university level. (See UCI catalog.)

School of Humanities

Foreign Language 101-102-103-104; English 101-102; one course each in history, philosophy, and literature; or History 107-108-109; English 101 or 102, and one course in literature, history, or philosophy.

Comparative Literature Department: English 101-102 or 109-110

English Department: English 101-102

Foreign Language and Literature Department: See the Irvine catalog.

History Department: One sequence from among: History 101-102; 117-118; 119-120; 107-108-109; 103-104

Philosophy Department: Philosophy 117, 119-120

Department of Information and Computer Science: Mathematics 103-104, 130; Business 111, 127.

School of Physical Sciences

Chemistry Department: Chemistry 101-102, 103, 105-106; 32 units in mathematics, physics, or the biological sciences, including at least Mathematics 103, 104, 105, and Physics 101-102

Mathematics Department: Mathematics 103-104-105-106.

Physics Department: Physics 101-102-103, Mathematics 103-104-105-106

School of Social Sciences

Mathematics 103-104-105; specialized departmental courses.

Mathematics 130 or Business 128 or 129 or 130

Pre-Engineering Curriculum

Required: Mathematics 103-104-105-106, 130; A minimum of four courses from: Physics 101-102-103; Chemistry 101-102

Before graduation the student must complete nine 3-unit courses from among Fine Arts, Humanities, and Social Sciences: six courses in one division, three in another.)

See UCI catalog.

**University of California,  
Los Angeles  
College of Fine Arts**

Requirements for the A.B. degree:

Completion of the approved major in the College of Fine Arts:

Major In

Art History: Art 101, 102, 103. Students should not have more than 20 additional semester units of art courses. Recommended Electives: Art 107.

Design: Two courses from Art 101, 102, 103, 106, 107, 108, 113, 115. Students should not have more than 16 additional semester units of art courses. Recommended Electives: Art 116, 132.

Painting/Sculpture/Graphic Arts: Two courses from Art 101, 102, 103, 106, 107, 108, 116, 118, 134, 135, 140. Students should not have more than 16 additional

semester units of art courses. Recommended Electives: Art 119, 136, 142.  
\*Portfolio required.

Dance: All preparatory to be taken at UCLA. \*Audition is required. Students should not have more than 16 additional semester units of dance courses.

Music: Music 104, 105, 106, 107, 108, 109, 114. \*Audition is required. Students should not have more than 16 additional semester units of music courses. Recommended: Music 115.

Motion Picture/Television: Students should not have more than 24 additional semester units of Theater and MP/TV courses.

Theater: Theater Arts 103 or 104 (both are recommended), English 125. Recommended: Theater Arts 121, 123, 131, 134. Students should not have more than 22 additional semester units of Theater and MP/TV courses.

Ethnic Arts: All core must be completed at UCLA, therefore a student should not have more than 6 units of performance and/or studio courses in any area. Anthropology 102.

\*Detailed information regarding audition or portfolio will be mailed to applicant after application is received.

#### A. General College Requirements

1. English 101 (composition, grammar & rhetoric) with grade of "C" (2.0 gpa) or better (not acceptable on credit/no credit basis). This requirement must be completed before entry to Fine Arts.
2. English 102 (composition and literature) with grade of "C" (2.0 gpa) or better (not acceptable on credit/no credit basis). This requirement must be completed before entry to Fine Arts.
3. Foreign Language — Two semesters of one college language through the second level — Proficiency examinations may not be used to complete this requirement. The language must be completed before entry to Fine Arts. French 101, 102; German 101, 102; Spanish 101, 102.
4. Science/Math — One course Physical or Biological Science. One course other Natural Science or Mathematics or another Physical or Biological Science (no laboratory science required).
 

*Physical or Biological Science*  
Biology, all courses except Biology 123, 124; Chemistry all courses; Mineralogy 101; Oceanography 115; Paleontology 101; Physical Science 131; Physics, all courses.

*Other Natural Science*  
Anthropology 101; Biology 123, 124; Mathematics, all courses except 130.
5. Social Science — One course in History prior to the 17th century. One course in History after the 17th Century. One course Social Science (may be another History course).

*History Prior to 17th Century*

History 101, 107

*History After the 17th Century*

History 102, 103, 104, 106, 108, 109, 110 through 120.

*Social Science Elective*

Anthropology 102, 103; Economics, all courses; Geography 102, 105; Political Science, all courses; Psychology 101, 102, 107; Social Science 121, 122, 131, 132; Sociology, all courses.

6. Humanities (Performance or studio courses do not meet this requirement.) One course in Arts (history, theory, criticism, appreciation). One course in Literature. One course in Philosophy and/or Religion. Courses in the student's major department may not apply on the humanities requirement.

*The Arts*

Art 102, 103, 106, 107, 108; Music 125-126.

*Literature*

English 105, 106, 109, 110, 122, 123, 125\*, 126, 127, 128; Spanish 125, 126.

*Philosophy/Religion*

Philosophy, all courses.

Note: When "all courses" are listed, this does not include independent study.

A "C" AVERAGE IS REQUIRED FOR THE GENERAL COLLEGE REQUIREMENTS. (If courses taken Pass/Not Pass, the Pass must be a "C" (2.0 gpa) or better.)

**B. General University Requirements**

1. Subject A — Required, no unit credit.
2. American History and Institutions — Any course used to meet this requirement may *not* also apply on the General College Requirements.

This requirement may be met in one of the two following ways:

1. Completion of two semesters in *high school* of American History or American Government or a combination, with a "B" average.
2. Completion of one course chosen from the following with grade of "C" or better. (Credit/No Credit is acceptable.): English 122, 123; History 103, 104, 110, 111, 117, 118; Political Science 101, 104, 105, 106; Social Science 131, 132.

**University of California  
Los Angeles  
College of Letters and Science**

**BREADTH REQUIREMENTS**

For the purpose of these requirements, departmental and interdepartmental majors are classified in the following divisions:

**HUMANITIES**

African Language  
Ancient Near Eastern Civilizations  
Arabic

Psychobiology  
Quantitative Psychology  
Zoology  
**PHYSICAL SCIENCES**

Chinese	Applied Geophysics
Classics	Astronomy
English	Biochemistry
Ethnic Arts	Chemistry
French	Cybernetics
German	General Chemistry
Greek	Engineering Geology
Hebrew	Geology
Indo-European Studies	Mathematics
Italian	Mathematics-Applied Science
Japanese	Mathematics-Computer Science
Jewish Studies	Mathematics-System Science
Latin	Meteorology
Linguistics	Planetary and Space Science
Near Eastern Studies	General Physics
Philosophy	SOCIAL SCIENCES
Portuguese	Anthropology
Russian	Business-Economics
Scandinavian Languages	(for Business Teachers)
Slavic Language	Economics
Spanish	Geography
LIFE SCIENCES	Geography-Ecosystems
Bacteriology	History
Biology	Latin American Studies
Botany	Political Science
Kinesiology	Sociology
Psychology	

Students will complete Plan A or Plan B. For divisional distribution of majors, consult the UCLA General Catalog. To apply on the Breadth Requirements, a course must have 2 or more semester units of credit. A 1-unit lab science course will apply if it is combined with the lecture. No course in the student's major department will apply on the Breadth Requirements.

PLAN A: 3 courses (12 quarter units) in each of 3 Divisions outside the Division of the student's major. Completion of semester course 104 in one foreign language exempts one Division (option 2). Courses in other Divisions used in preparation for the major may apply on Plan A.

PLAN B: 7 courses (28 quarter units) in one Division outside the Division of the student's major and one course (4 quarter units) in each of the other Divisions or 2 courses (8 quarter units) in one of the other Divisions. Courses apply as in Plan A above *except* in the foreign languages. No elementary or intermediate course in foreign language applies if the student has not completed semester course 104 (equivalent to courses 5, 6 at UCLA) in any language. With the completion of course 104, elementary and intermediate courses 101, 102, and 103 in any foreign language may be used on Plan B.

**General University and College Requirements**

The completion of 60 semester units of acceptable college work is required for junior standing. Students are advised to meet the following general requirements for the Bachelor of Arts Degree so far as possible within these 60 units.

## a. General University Requirements:

Subject A. Every undergraduate entrant must demonstrate an acceptable ability in English composition. This requirement may be met by (1) achieving a grade of 5, 4, or 3 in the College Entrance Examination Board (CEEB) Advanced Placement Examination in English, or (2) achieving a satisfactory score in the CEEB Achievement Test in English composition. Students completing English 101 in Glendale Community College with a grade of "C" or higher satisfy this requirement.

b. American History and Institutions. Completion of requirements set by Glendale Community College meets the State requirement.

c. English 101 with a grade of "C" or better.

## d. Physical Sciences

Astronomy 101

Chemistry 101, 102, 103, 105, 106, 107, 110

Geography 101

Geology 101, 102, 103, 104, 105, 110

Mathematics 103, 104, 105, 106

Mineralogy 101

Oceanography 115

Paleontology 101

Physical Science 131

Physics 101, 102, 103, 105, 106, 110, 111

## e. Life Sciences

Anthropology 101

Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137

## f. Social Sciences

Anthropology 102, 103

Economics 101, 102, 105, 111

Geography 102, 105

History 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, 117, 118, 119, 120

Political Science 101, 102, 103, 104, 105, 108, 110, 111

Psychology 101, 102

Social Science 121, 122, 131, 132, 150

Sociology 101, 102, 105

## g. Humanities

Art 101, 102, 103, 106, 107, 108, 110

English 102, 103, 105, 106, 109, 110, 115, 122, 123, 125, 126, 127, 128, 129

Music 120, 125, 126, 129

Philosophy 101, 113, 114, 116, 117, 119, 120

Social Science 155

Speech 101, 102

Foreign Language (Any student wishing to apply Foreign Language on the Breadth Requirements should consult the College of Letters and Science at UCLA.)

*Note:* An appropriate 2 semester unit course will not displace a full 4 quarter course on the requirement. On Plan A a student must have at least 12 quarter units (8 semester units) in each division. On Plan B a student must have 28 quarter units (nearest equivalent 20 semester units) in one division outside the major plus 4 quarter units (3 semester units) in each of two other divisions or 8 quarter units (at least 6 semester units) in one division.

Plan B.

The student will take seven courses in any division outside the division of his own major, and either one course in each of the two remaining divisions or two courses in one of the remaining division. *The divisional requirements may be satisfied according to the e-g list.*

No courses in foreign language will apply on Plan B unless the student has passed course 5 in one foreign language at the college level. If the student has completed course 5 in one foreign language, then all elementary and intermediate foreign language courses taken at the college level are acceptable for satisfaction of this requirement under the division of humanities.

Courses required for the major or in preparation for the major may not also be used to satisfy this requirement.

University of California, Riverside

There now exist on campus 2 colleges offering undergraduate work and awarding the baccalaureate degree. The colleges and degree programs offered are:

#### COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Administrative Science	Liberal Studies
Administrative Studies	Linguistics
Anthropology	Music
Art (Studio)	Philosophy
Art History	Political Science
Black Studies	Psychobiology
Chicano Studies	Psychology
Comparative-Literature	Religious Studies
Dance	Russian Studies
Economics	Social Relations
English	Social Science Individual
French	Sociology
German	Spanish
History	Theatre
Human Development	Urban Studies
Humanities Interdisciplinary	
Latin American Studies	

These additional programs do not offer a major, but their offerings may supplement a degree program:

Creative Writing  
Fine Arts/Humanities  
Jewish Studies  
Journalism  
Physical Education (Teaching minor available)  
Law and Society

#### COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES

Biochemistry	Mathematics
Biology	Paleobiology
Biomedical Sciences	Physical Sciences
Chemistry	Physics
Entomology	Plant Science
Environmental Sciences	Psychobiology
Geography	Soil Science
Geology	Statistics
Geophysics	Systems Ecology

Students who are undecided on a major register with the Undeclared Majors Advising Center where special counseling is provided.

Students may transfer from one disciplinary college to another or may complete a double major in two colleges.

The School of Education offers credential programs for teachers, including certification in Special Education.

General University Requirements:

English Subject A—Students completing English 101 at Glendale Community College with Grade "C" or better satisfy this requirement.

American History and Institutions—History 117-118 at Glendale Community College satisfies this requirement. May also be met by one high school unit in American History or one-half high school unit in American History and one-half high school unit in civics or American government.

Students are advised to consult the general catalog for courses required for a specific major.

#### COLLEGE OF HUMANITIES AND SOCIAL SCIENCES SUBJECT REQUIREMENTS

For students entering the College of Humanities and Social Sciences at UCR from Glendale Community College, a choice of subject requirements exists until Fall Quarter, 1979. Students will enter under the subject requirements listed below:

English Composition: Students must demonstrate writing proficiency by satisfying any of the following: (1) achievement of level 3 of the College Advanced

Placement Test; (2) achievement of a passing score on the California State Universities and Colleges English Composition Test; (3) eight units of English composition with a grade of "C" or better at a community or junior college, or university other than University of California at Riverside; (4) completion of English 101-102 with a grade of "C" or better.

**Humanities:** Twenty units to be taken in two or more different departments or programs, and excluding non-literature English courses and studio, technical and performance courses. Courses eligible for this requirement are those offered by the following departments or programs: Art History, Art (Studio), Classics, Comparative Literature, Creative Writing, Dance, English, French and Italian, German and Russian, History, Humanities and Social Science Interdisciplinary, Music, Philosophy, Religious Studies, Spanish, and Theater. Up to four units from courses in programs in Black Studies, Chicano Studies, and Latin American Studies may be counted toward the humanities requirement. The twenty units shall include at least four units focusing on an ethnic group or foreign area.

**Social Sciences:** Sixteen units to be taken in two or more different departments or programs from the following list: Anthropology, Economics, Human Development, Linguistics, Political Science, Psychology, Sociology and Urban Studies. Up to four units from courses in programs in Black Studies, Chicano Studies, and Latin American Studies may be counted toward the social science requirement. The sixteen units shall include at least four units focusing on an ethnic group or foreign area.

**Sciences:** Twelve units are to be taken in courses offered for the College of Natural and Agricultural Sciences, with the exception that four units in the history of science or the philosophy of science may be used in partial satisfaction of this requirement.\*

No courses from a student's major discipline may be used in satisfaction of requirements in Humanities and Sciences, although courses in a second major or courses required for the major but outside the major discipline may be used in satisfaction of the requirements. Also, the same course may not be used to meet two breadth requirements.

\*At the University of California at Riverside, this means courses offered by the following departments and majors: Applied Science, Biochemistry, Biology, Biomedical Sciences, Chemistry, Earth Sciences, Entomology, Environmental Sciences, Geography, Geology, Geophysics, Mathematics, Nematology, Paleobiology, Physical Sciences, Physics, Plant Pathology, Plant Sciences, Soil Science and Agricultural Engineering, Statistics, and Systems Ecology.

#### COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES SUBJECT REQUIREMENTS

The College of Natural and Agricultural Sciences strongly advises transfer students to complete their lower division science work while at Glendale Community College. Sacrificing lower division science work to satisfy Breadth Requirements for the college may adversely affect chances for completion of the degree within two years following transfer.



The Subject requirements are:

*Bachelor of Arts Degree*

English 101-102: 6 units. If met by examination, 6 units are added to the humanities and social sciences requirement.

Foreign Language: 12 units, (a) in one language by completing course 3 or equivalent, or (b) by completing 8 units or equivalent in each of two languages. (Exception: Biology majors must complete course 3 in a single foreign language.) Completion of four years or equivalent of one foreign language in high school will meet the College requirement. Students who choose option (b) may satisfy the requirement for one of the two languages by completing two years of that language in high school.

Humanities and Social Sciences: 24 quarter units, with no fewer than 6 units in each. Applicable courses in the Humanities are: Art 101, 102, 103, 106, 107, 108, 110, (Performance courses for which credit is granted to the extent of four units: Art 113, 114, 115, 116-117, 118-119, 120-121, 126-127-128-129, 130, 134-135, 136-137, 138-139, 140, 142, 144-145, 147-148-149-150, English 105, 106, 109, 110, 122, 123; Music 101, 104, 105, 106, 107, 108, 109, 114, 115, 120, 125, 126, (Performance courses for which credit is granted to the extent of four units: Music 130, 131, 132, 133, 135-136, 140, 141, 142, 143, 144, 145, 150, 151, 152, 160, 161, 162, 163, 165, 166, 170); Philosophy 101, 113, 114, 116, 117, 119, 120; Applicable courses in the Social Sciences are: Anthropology 102; Economics 101, 102, 105; Geography 102; Political Science 101, 102; Psychology 101, 102; Sociology 101, 102; Social Science 121, 131, 132.

Natural Sciences: 12 units.

*Bachelor of Science Degree*

English 101-102: 6 units. If met by examination, 6 units are added to the humanities and social sciences requirement.

Foreign Language: 12 units, (a) in one language by completing course 3 or equivalent, or (b) by completing 8 units or equivalent in each of two languages. (Exception: Biology majors must complete course 3 in a single foreign language.) Completion of four years or equivalent of one foreign language in high school will meet the College requirement. Students who choose option (b) may satisfy the requirement for one of the two languages by completing two years of that language in high school.

Humanities and Social Sciences: 24 quarter units, with no fewer than 6 units in each. Applicable courses in the Humanities are: Art 101, 102, 103, 106, 107, 108, 110, (Performance courses for which credit is granted to the extent of four units: Art 113, 114, 115, 116-117, 118-119, 120-121, 126-127-128-129, 130, 134-135, 136-137, 138-139, 140, 142, 144-145, 147-148-149-150, English 105, 106, 109, 110, 122, 123; Music 101, 104, 105, 106, 107, 108, 109, 114, 115, 120, 125, 126, (Performance courses for which credit is granted to the extent of four units: Music 130, 131, 132, 133, 135-136, 140, 141, 142, 143, 144, 145, 150, 151, 152, 160, 161, 162, 163, 165, 166, 170); Philosophy 101, 113, 114, 116, 117, 119, 120; Applicable courses in

the Social Sciences are: Anthropology 102; Economics 101, 102, 105; Geography 102; Political Science 101, 102; Psychology 101, 102; Sociology 101, 102; Social Science 121, 131, 132.

(Performance courses for which credit is granted to the extent of four units: Music 130, 131, 132, 133, 135-136, 140, 141, 142, 143, 144, 145, 150, 151, 152, 160, 161, 162, 163, 165, 166, 170); Philosophy 101, 113, 114, 116, 117, 119, 120; Applicable courses in the Social Sciences are: Anthropology 102; Economics 101, 102, 105; Geography 102; Political Science 101, 102; Psychology 101, 102; Sociology 101, 102; Social Science 121, 131, 132.

Natural Sciences: 12 units.

**University of California,  
San Diego  
Muir College**

Choose two groups under Section A and two under Section B, and complete two semesters in *one subject* in each of the four chosen groups. No work required in the remaining two groups unless demanded by the major.

#### SECTION A

Social Sciences Group. Two courses from one subject:

Anthropology 101, 102, 103  
Economics 101, 102, 105, 111  
History 106, 110, 117, 118  
Political Science 101, 102, 103, 104, 108, 110, 111  
Psychology 101, 102, 131  
Sociology 101, 102, 105

Mathematical Sciences Group. Two courses from:

Mathematics 103, 104, 105, 106

Natural Sciences Group. Two courses from one area:

Life Science Area: Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137

Chemistry Area: Chemistry 101, 102, 103, 105, 106, 107, 110 (no credit for Chemistry 110 following Chemistry 101.)

Earth Science Area: Geology 101, 102, 105, 110; Mineralogy 101; Paleontology 101

Physics Area: Physics 101, 102, 103, 105, 106, 110, 111

#### SECTION B

Fine Arts Group. Six or more units from one subject:

Art 101, 102, 103, 106, 107, 108 — or one of the preceding plus an additional 3 or more units from:

Music 101, 104, 105, 106, 107, 108, 109, 114, 120, 125, 126

Humanities Group. Two courses (6 units) from one subject:

English 101, 102, 105, 106, 109, 110, 115, 122, 123, 125, 126, 127, 128, 129

History 101-102, 107-108-109 (any 2), 119-120

Philosophy 101, 113, 114, 116, 119, 120

Foreign Language Group. One year in one foreign language, at the college level.

University of California,  
San Diego  
Revelle College

Examples: French (or other language) 101 and 102, 102 and 103, or 103 and 104.

The educational philosophy of Revelle College is based upon the idea that today's citizen benefits by an understanding of the fundamental concerns, methods, and powers of the humanities and arts, the social and behavioral sciences, and the physical and biological sciences. The first two years contain work in all of these fields, and all students pursue essentially the same sequence of courses. At the end of that time, the student will have been exposed to the real essence of these areas of study, and will be able to make a wise choice of his major; he will also be prepared to enter upon any major offered by Revelle College.

- |   |       |
|---|-------|
|   | Units |
| a. Humanities and Fine Arts .....   | 15    |
| Any combination from the following courses, with at least 6 units from the Humanities and at least 3 units from the Fine Arts.  |       |
| <b>Humanities</b>   |       |
| English 101, 102, 105, 106, 109, 110, 122, 123, 125, 127, 128.  |       |
| History 101, 102, 107, 108, 109, 119, 120   |       |
| Philosophy 101, 113, 114, 116, 119, 120   |       |
| <b>Fine Arts</b>  |       |
| Art 101, 102, 103, 106, 107, 108, 110, 115, 116, 117, 118, 119, 120, 121, 134, 135, 136, 137, 138, 139, 140, 142, 143, 144, 145 |       |
| English 115   |       |
| Music 101, 104, 105, 106, 107, 108, 109, 120, 125, 126  |       |
| Photography 101, 102, 103   |       |
| Theater Arts 103, 104, 105  |       |
| b. Physical Sciences .....  | 10    |
| 1. Chemistry 101 and 102 or 105*, and 106*  |       |
| Physics 101 and 102, 103* (Physics 105, 106 are recommended)  |       |
| c. Biology—one course from among: .....   | 4     |
| 1. Biology 101*, 102*, 122, 123   |       |
| d. Mathematics .....  | 10    |
| 1. Mathematics 103-104, 105*, 106*  |       |
| e. Social Sciences .....  | 6     |
| 1. Six units from among:  |       |
| Anthropology 101, 102, 103  |       |
| Economics 101, 102, 105, 111  |       |
| History 106, 110, 117, 118  |       |
| Political Science 101, 102, 103, 104, 108, 110, 111   |       |
| Psychology 101, 102, 131  |       |
| Social Science 121, 122, 131, 132   |       |
| Sociology 101, 102, 105   |       |
| f. Foreign Language .....   | 4-16  |
| 1. Through Language 103   |       |

- g. Electives .....6  
 All transferable courses not listed here will be applied as free electives toward the degree, with the exception of physical education and certain home economics courses. These are graduation requirements, NOT entrance requirements; the student who is eligible to enter the University may do so whether or not the requirements have been completed. But if he lacks too much in preparation for the major, graduation may well be delayed.

\*Recommended as electives for science majors.

**University of California,  
 San Diego, Third College—**

**Composition**

English 101

**Mathematics**

Two courses from among: Business 111, 112; Mathematics 103, 104, 105, 106, 130, 138

**Natural Science**

Two courses from among: Biology 101\*, 102\*, 112, 120, 121, 122, 123, 124, 125, 130, 137; Chemistry 101\*, 102\*, 103, 105\*, 106\*, 110; Physics 101\*, 102\*, 103\*, 105, 106, 111; Astronomy 101; Geology 101, 105, 110; Mineralogy 101; Paleontology 101; Physical Science 131

**Social Science and Humanities**

Choice of two programs:

Program A. Two courses each in Groups 1, 2, and 3.

Program B. One course each in Groups 1, 2, and 3, plus a two-semester sequence as in Group 4.

Group 1. Communications: Journalism 101

Group 2. Third World Studies: Anthropology 102; Geography 102, 105; History 103, 104, 113; Philosophy 113, 114; Social Science 121, 122

Group 3. Urban and Rural Studies: Economics 101 or 102; Political Science 108

Group 4. Sample Optional Sequences: Anthropology 101, 102, 103, (any 2); Art 101-102-103 (any 2), 106-107; Economics 101, 102, 105, 107, 111 (any 2); English 101, 102, 105-106, 109-110, 122, 123; History 101-102, 103-104, 107-108-109 (any 2), 117-118, 119-120) Music 104-107, 105-108, 106-109 (any 2 of the combinations), 125-126; Philosophy 101-116, 113-114, 119-120; Political Science 101, 102, 103, 104 (any 2); Sociology 101-102; Spanish (or any other language), 101-102, 102-103, 103-104

\*Recommended as electives for science majors.

**University of California,  
 San Diego, Fourth College—**

Each of the Colleges at University of California, San Diego has its own set of breadth (general education) requirements. It is an advantage to satisfy as many as possible before transfer. Preparation for a major is even more important. As a major in one of the natural sciences the student should select mathematics and science courses from those marked with an asterisk (\*), while mathematics courses so marked are recommended for majors in economics and psychology. Courses marked # are recommended for

majors in that particular subject. All courses transferable to the University of California are accepted as electives, even though not listed here.

WRITING. 2 courses: English 101, 103

FORMAL SKILLS. 2 courses: Mathematics 103\*, 104\*, (105\*, 106\* recommended as electives).

THE MAJOR. As in the other three Colleges, a major requires 12 to 15 upper division courses following appropriate preparation in lower division. All UCSD majors are offered in all Colleges (although in a very few majors, such as Biology, the emphasis varies from College to College). The majors fall into three categories: (1) HUMANITIES AND FINE ARTS (which includes history); (2) NATURAL SCIENCE (which includes mathematics); and (3) SOCIAL SCIENCE (which includes Psychology). This categorization helps to decide on one of the minors (see below).

THE MINORS. Two programs of secondary concentration are required, one of them non-contiguous—that is, not in the same category as the major. Each program is a focused collection of at least six courses; three of these must be taken in upper division and at UCSD. The transfer student's progress is accelerated if at least a year's work (two semesters or three quarters) in each of the two chosen minors is completed before transfer.

Presently approved programs of secondary concentration include:

HUMANITIES AND FINE ARTS. Chinese Studies. Classical Studies. Drama. History. Judaic Studies. Literature. Music. Philosophy. Visual Arts. Writing.

NATURAL SCIENCES. Applied Mechanics and Engineering Sciences. Applied Physics and Information Sciences. Biology. Chemistry. Earth Science. Mathematics. Physics. Scientific Perspectives.

SOCIAL SCIENCES. Anthropology. Economics. Frontiers of Science. Legal Studies. Linguistics. Political Science. Psychology. Science. Technology. Public Affairs. Sociology. Urban and Rural Studies.

Also required:

ELECTIVES to bring the total to 45 courses—that is, 180 quarter units (equivalent to 120 semester units). Eighteen courses must be in upper division; this include courses for the major and the two areas of concentration.

University of California,  
Santa Barbara  
College of Letters and Science—  
Bachelor of Arts

	Units
a. English 101-102 (Two courses) .....	6
b. Natural Science and Mathematics (Three courses) .....	9-12
1. Two courses from: Astronomy 101; Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137; Business 111, 112; Chemistry 101, 102, 103, 105, 106, 110; Geology 101, 102, 105, 110; Mathematics 103, 104, 105, 106	
2. One course from above or from: Physical Science 131; Physics 101, 102, 103, 105, 106, 110, 111	

- c. Fine Arts (Two courses) .....6  
 Art 101, 102, 103, 106, 107, 108, 110; Music 120, 125, 126, 129
- d. Humanities (Three courses) .....10
  - 1. Literature, English 103, 105, 106, 109, 110, 115, 122, 123, 125, 126, 127, 128, 129
  - 2. Philosophy 101, 113, 114, 116, 117, 119, 120;  
 Foreign Language (second year college level);  
 Social Science 155; Speech 101, 102
- e. History, Social Sciences and Psychology  
 (Three courses) .....9-12
  - 1. Any course from the following:  
 Anthropology 102, 103  
 Business 161, 162, 165  
 Economics 101, 102, 105, 107, 111  
 Geography 102, 105  
 History 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, 117, 118, 119, 120  
 Political Science 101, 102, 103, 104, 107, 108, 110  
 Psychology 101, 102, 107, 131  
 Social Science 121, 122, 131, 132  
 Sociology 101, 102, 105, 107
  - 2. Two additional courses from above or from:  
 Social Science 121, 122

In fulfilling these requirements, the following restrictions are applied to transfer courses:

- 1. Courses must consist of three or more quarter units.
- 2. Courses in the subject of the student's major may not fulfill General Education requirements b-e. (For example, a student majoring in History may not use History courses toward requirement e.) This stipulation applies to departmental majors only. For interdepartmental majors, all courses in the major will apply to the appropriate General Education requirement.

**University of California, Santa Cruz**  
**Cowell, Stevenson, Crown, Merrill, College V, Kresge, Oakes, College VIII**

The colleges at Santa Cruz are designed to strengthen undergraduate education by making natural the communication—between student and teacher, between students, and between fields—that is essential to the process and enjoyment of learning in a University.

Cowell College opened in 1965, Stevenson College in 1966, Crown College in 1967, Merrill College in 1968, College V in 1969, Kresge in 1971, and Oakes College and College VIII in 1972.

The eight separate colleges at Santa Cruz are one of its most distinctive features, with each college's faculty representing the range of disciplines in the arts and sciences—from anthropology to theater arts. Working side by side in the college communities (rather than in large, separate departments), faculty members are often inspired to design courses together to complement traditional programs. Examples of interdisciplinary courses offered by colleges include *Energy and Energy Resources*, taught jointly by a professor of earth sciences and a physicist, and a class on the twelfth century given by a professor of English and a professor of philosophy. Such cross-disciplinary approaches to learning are found in campuswide programs as well as, notably in psychobiology and environmental, community, marine, and religious studies.

Because the majors of students in each college are about equally distributed among the three main divisions of courses at Santa Cruz—humanities, natural sciences, and social sciences—there is a melding of interests and learning. A biology major may be encouraged to take a writing course or study music, while a history major might become intrigued with several courses in science.

Wide-ranging interests of faculties and students and a sense of adventure in learning are a natural part of the small college communities. The environment is ideal to combine the best of a traditional education with a spirit of openness and innovation.

Many of the courses offered by the colleges satisfy campus breadth requirements for graduation or requirements for a major, and generally students may take courses at any college on campus in addition to their own.

To help students focus their studies during their undergraduate years within the broad context of a liberal arts education, Santa Cruz offers a wide range of academic programs in which students may major. A student interested in majoring in one of the traditional disciplinary subjects may choose from among the following UCSC programs:

#### HUMANITIES

Art  
 Art History  
 History  
 Linguistics  
 Literature  
 Languages  
   English  
   French  
   German  
   Greek  
   Italian  
   Latin  
   Russian  
   Spanish  
 Music  
 Philosophy

#### HUMANITIES (continued)

Religious Studies  
 Theatre Arts

#### NATURAL SCIENCES

Biology  
 Chemistry  
 Earth Sciences  
 Mathematics  
 Physics

#### SOCIAL SCIENCES

Anthropology  
 Economics  
 Education\*  
 Politics  
 Psychology  
 Sociology

Santa Cruz also offers a number of interdisciplinary majors:

Aesthetic Studies	Latin American Studies
Community Studies	Modern Society and Social Thought
East Asian Studies	Psychobiology
Environmental Planning	Western Civilization
Environmental Studies	Women's Studies
Information and Computer Sciences	

The additional programs listed below have not been established as majors but represent common areas of interest among groupings of faculty. They can assist students who want to declare individual majors in these fields.

African Studies	Marine Studies
American Studies	Medieval Studies
Asian Studies	Natural History
Classical Studies	Natural Sciences
Communications, Arts, Media	Perception
Creative Writing	Science and World Society
Dramatic Literature	Social and Political Thought
French Studies	World Studies
Institutional Analysis	

\*Education is not available as a major at UCSC, but the Committee on Education offers the courses, including student teaching, that are required for a preliminary (valid for hiring) teaching credential.

Faculty advisers are assigned each student by the college to help in academic matters, and professionally trained counselors are available in each college for personal and group counseling.

*Humanities.* Three courses (five quarter units each) or the equivalent.\*

\**Natural Sciences.* Three courses (five quarter units each or nine semester units) or the equivalent, offered by the Boards of Studies in Astronomy, Biology, Chemistry, Earth Sciences, Mathematics,\*\* or physics, or by the Division of Natural Sciences. Any number may be used.

*Social Sciences.* Three courses (five quarter units each) or the equivalent. Administration of these requirements will be governed by the following policies:

Students entering the University of California at Santa Cruz as freshmen must satisfy the breadth requirements of this campus before graduation. Students entering with three or more quarters of advanced standing from other campuses of the University must satisfy the Santa Cruz breadth requirements unless, at the time of transfer, they have entirely satisfied the breadth requirements of the campus from which they are transferring.

\*Any level of Foreign Language—includes History

\*\*Business 111, 112 may be selected in the place of a mathematics course.



**Claremont Men's College** General Requirements—All Majors

- a. Humanities  
 Required:
  - 1. English 101-102
  - 2. Additional Humanities Courses:
    - Philosophy 101, 102, 113, 114, 116
    - English 105, 106, 109, 110, 122, 125,, 126
- b. Social Science  
 Required:
  - 1. Economics 101-102
  - 2. History 101-102 or 107-108-109
  - 3. Political Science 101, or History 117-118
  - 4. Psychology 101
- c. Science and Mathematics  
 Required:  
 From 1, 2 and 3 choose two laboratory courses.
  - 1. Chemistry 101, 102, 110
  - 2. Physics 101, 102, 103, 105, 106, 111
  - 3. Biology 101, 102, 122, 124
  - 4. Mathematics 103, 104, 105, 106
- d. Foreign Language and Civilization  
 Satisfactory completion of a foreign language OR a course in "The Roots of Western Culture."
- e. Major Requirements: Major requirements differ with the discipline, and may be obtained from the Registrar's Office.
- f. Electives as needed to complete 60 units.

**Loyola Marymount University**

Transfers are admitted each semester—fall and spring.

Students admissible as freshmen to Loyola Marymount University at the time of their graduation from high school, may be admitted to advanced standing at any semester if they have at least a "C" average at the last college attended and at least a "C" average for all previous college work.

Students inadmissible as freshmen at the time of their graduation from high school, may be admitted to advanced standing if they have completed at least the equivalent of 30 semester units of college level work with at least a "C" plus average.

Many courses are acceptable for transfer credit, but the following pattern satisfies the baccalaureate degree requirements for the College of Liberal Arts, and College Fine/Communication Arts. See notes below for College of Business and College of Science/Engineering.

- |  | Units |
|--|-------|
| a. Communication Skills .....          | 6-7   |
| English 101                            |       |
| Speech 101 or one semester of language |       |

- b. Fine Arts .....3  
 Art 101, 102, 103, 106, 107, 108  
 Music 101, 120
- c. History .....6  
 Select from any two three-unit history courses.
- d. Literature/Psychology .....6  
 English 102, 105, 106, 109, 110, 122, 123  
 Psychology 101, 102, 131
- e. Philosophy .....6  
 Philosophy 101 or 116 or 117 or 119 or 120 and 113 or 114  
 Philosophy 113 or 114 Note: will accept as religious studies to satisfy requirement of one lower division religious studies course.
- f. Natural Science .....8  
 Two college-level science courses or a combination of one college-level science course and one college-level mathematics course may be used to fill this requirement.  
 Astronomy 101  
 Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137, 138  
 Business 111, 112  
 Chemistry 101, 102, 103, 105, 106, 110  
 Engineering 110  
 Geology 101, 110  
 Mathematics 102, 103, 104, 105, 106  
 Mineralogy 101  
 Oceanography 115  
 Paleontology 101  
 Physical Science 131  
 Physics 101, 102, 103, 105, 106, 110, 111
- g. Social Science .....6  
 Two three-unit courses must be outside the major field  
 Anthropology 102, 103  
 Economics 101, 102, 105, 111  
 Geography 102, 105  
 Administration of Justice 106, 107, 110, 118  
 Political Science 101, 102, 103, 104, 107, 108, 110, 111  
 Social Science 121, 122, 131, 132  
 Sociology 101, 102, 105

Note: Business majors must complete Business 101, 102, 111, 112, 122, 161; Economics 101, 102, 107; English 101; Speech 101; History 110 or 117; Philosophy (same as e above); a three-unit course in literature (English 102, 105, 106, 109, 110); and a three-unit course in a behavioral science (Psychology 101, 102, 131; Sociology 101, 102).

Engineering majors must complete Chemistry 101, 102, Engineering 101, 103, 108, 110; Mathematics 103, 104, 105, 106; Physics 101, 102, 103; English 101

and a three-unit course in literature; History 110 or 117; Philosophy (same as e above); and three non-technical electives, preferably from social sciences listed under g above.

Science/Mathematics students are encouraged to consult their counselor in conjunction with the Loyola Marymount University catalog.

### Mount St. Mary's College

The following courses will satisfy General Education Requirements:

- |  |     |
|--|-----|
| a. American History and Institutions .....   | 6-8 |
| History 110; 117-118   |     |
| Political Science 101 or 105   |     |
| Social Science 131-132   |     |
| b. English .....   | 3   |
| English 101  |     |
| c. Philosophy .....  | 9   |
| Any course in philosophy, at least two must be lower division.                         |     |
| d. Religious Studies .....   | 9   |
| Any course in theology and courses on an annually published list of Religious Studies. |     |
| e. Foreign Language .....  | 12  |
| Three semesters of college language study.   |     |
| f. General Studies .....   | 27  |
| 1. Humanities (6-15 units in two areas)  |     |
| Fine Arts—Art 101 or 102; Music 120, 125, or 126                                       |     |
| Literature—English 102, 105, 106, 109 and/or 110                                       |     |
| History 101, 102   |     |
| 2. Natural Sciences (6-15 units in two areas)  |     |
| Biology 101, 102, 112, 120, 121  |     |
| Chemistry—any course or courses  |     |
| Physics 105, 106, 110  |     |
| Mathematics 103, 104, 105, 106, 130  |     |
| 3. Social and Behavioral Sciences (6-15 units in two areas)                            |     |
| Economics 101, 102, 105, 111   |     |
| History—Any non-survey U.S. History*   |     |
| Political Science 102  |     |
| Psychology 101 or 102, 110   |     |
| Sociology 101 or 102   |     |
| Anthropology 102   |     |

**MAJOR REQUIREMENTS:** Consult Mount St. Mary's College catalog for major requirements. Specific requirements for a particular major are designated by the Major Department.

**EXAMINATIONS:** Consult Mount St. Mary's College catalog for areas in which requirements may be satisfied by examination.

\*No course may satisfy two requirements.

**Northrop University** Northrop University is an independent, coeducational senior institution accredited by the Western Association of Schools and Colleges, offering undergraduate degrees in Engineering, Technology and Management. Students are admitted each academic quarter and can receive advanced standing from transferable junior college credits with a grade of "C" or better. Students can receive maximum transferable credit in Engineering by taking the following courses:

Chemistry 101; English 101, 102; History 117, 118; Mathematics 103, 104, 105, 106, 130; Physics 101, 102, 103; Engineering 104, 110; Speech 101; and four 3-unit courses chosen from the fields of Anthropology, Biology, Economics, History, Philosophy, Political Science, Psychology, Sociology.

Students can receive maximum transferable credit in Engineering and Technology by taking the following courses:

Airframe and Powerplant Program; Chemistry 101; History 117 and 118; Materials and Processes 146; English 101, 102; Mathematics 103, 104; Physics 101, 102; Speech 101; Engineering 104, 110; and three 3-unit courses chosen from the fields of Anthropology, Biology, Economics, History, Philosophy, Political Science, Psychology, Sociology.

Students can receive maximum transferable credit in Management by taking the following courses:

Business 101, 102, 111, 112, 122, 130, 135, 137, 138, 147, 161, 171; Chemistry 101; English 101, 102; History 117; Economics 101, 102; Physics 101; Psychology 102.

**Occidental College** Students considering transfer in either the sophomore or junior year are strongly urged to check with the Admission Office for further information if the descriptions below are not adequate or do not relate sufficiently to the courses available to them at the college they are attending. They should refer also to the current catalog for information concerning prerequisites for proposed majors.

#### LOWER DIVISION GENERAL DEGREE REQUIREMENTS FOR THE A.B. DEGREE

**English:** No English is required. However, competence is emphasized. Periodic checks are made on the writing performance of all students and a student may be remanded to an English course or a writing specialist if his/her new work is sub-standard. Freshman English is recommended.

**Foreign Language:** Competence in a foreign language at the level of completion of the third term of college work. (One quarter or semester of intermediate level.)

**Sciences:** Science majors should refer to the catalog for specific prerequisites. Non-science majors see General Studies outline below:

**Physical Education:** Not required.

**General Studies:** All students entering Occidental College as Freshmen are required to complete a pattern of six General Studies courses by the end of the Junior year. This requirement applies also to transfer students, although

it is clear that identical courses cannot be taken at another institution. Students and Counselors should review the Occidental College catalog for course descriptions in General Studies in order to outline a study plan as nearly equivalent as possible. As it applies to transfer students, the General Studies requirement is as follows:

Three Courses: **INTRODUCTORY STUDIES.** Required of Freshmen are one Freshman Seminar course and two courses in a Perspective sequence.

Transfer students must take a two-course Perspectives sequence at Occidental or may transfer a similar sequence from a previous institution. Such sequences as History of Civilization, Humanities, etc. may be appropriate. Normally, transfer students may not enroll in Freshman Seminars, but may transfer one course in composition, exposition or a related topic or they will take an additional Divisional Studies course at Occidental (see below).

Three Courses: **DIVISIONAL STUDIES:** The academic departments of the College are divided among three Divisions: the Sciences and Mathematics (Division A), the Social Sciences (Division B), and the Humanities (Division C). Two Divisional Studies courses must be taken in one of the Divisions *outside* of which the student's major falls, and the third course must be taken from the other such Division. For example, a student whose major department is in the Humanities must take either two courses from "A" and one from "B", or two from "B" and one from "A".

Transfer students who must take an additional Divisional Studies course in lieu of a Freshman Seminar (see above), must take two courses in each Division other than that of the major.

#### MAXIMUM GENERAL STUDIES TRANSFER CREDIT:

Sophomores: Three courses. Should be equivalent to Perspectives, Freshman Seminar or a course from Division that does not include student's major. Balance of courses must be taken at Occidental.

Juniors: Four Courses. Equivalent to Perspectives, Freshman Seminar and one course from a Division that does not include student's major. Balance of courses must be taken at Occidental.

American Institutions: This requirement is *only* for those students working toward a teaching credential.

The academic year at Occidental consists of three eleven-week terms, with each student allowed to take no more than three courses per term, plus certain fractional courses. A minimum of thirty-five courses, exclusive of credit

for Physical Education activity courses, is required for graduation.

Please note that a maximum of 64 semester (96 quarter) units of lower division credit (equivalent to 18 courses) is accepted for transfer, and that a minimum of 17 courses must be taken at Occidental College in order to receive the B.A. degree.

### Pacific Oaks College

The two-year upper division program leads to the Bachelor of Arts degree in Human Development or in the Diversified Major for the Multiple Subjects Credential. Admission in junior standing requires completion of not less than 60 semester units of acceptable college work with at least a "C" grade average.

Glendale Community College courses which satisfy the lower division general education requirements are listed below. (Students who wish to complete a Diversified Major for credential purposes should plan to take 15 units instead of 9 units in each area listed):

- |  | Units |
|--|-------|
| a. Oral and Written Expression .....   | 9-15  |
| 1. REQUIRED: English 101; or English 102 or 120 or Speech 101, 102, or 121.              |       |
| 2. BY CHOICE: English 103, 105, 106, 109, 110, 121, 122, 123, 125, 126, 198; Journalism. |       |

For the Diversified Major, 12-15 units to include at least 6 units in English composition and grammar and 3 units in speech.

- |   |      |
|---|------|
| b. Natural Sciences and Mathematics .....   | 9-15 |
| 1. REQUIRED: Biology 101, 120, 121, or 122.   |      |
| 2. BY CHOICE: Anthropology 101; Astronomy 101; Biology 102, 112, 123, 124, 125, 130, 137; Business 111, 112, 117, 119; Chemistry; Economics 107; Geography; Geology; Mathematics-Mineralogy; Paleontology 101; Physics; Physical Science 131. |      |

For the Diversified Major, 15 units to include at least one course in mathematics.

- |   |      |
|---|------|
| c. Social Sciences .....  | 9-15 |
| 1. REQUIRED: Psychology 101 and either Sociology 101 or Anthropology 102.   |      |
| 2. BY CHOICE: Anthropology 103; Economics 101, 102; Geography 105; History 110, 112, 117, 118, 151; Home Arts 135, 136, 140, 141, 142, 143; Political Sciences; Psychology 102, 107, 110, 131; Public Administration; Social Science; Sociology 102, 107; Journalism 101. |      |

For the Diversified Major, 9-12 units to include a course which covers the U.S. Constitution.

- |   |      |
|---|------|
| d. Humanities .....   | 9-15 |
| No specific course requirement.   |      |
| BY CHOICE: Architecture; Art (any course through Art 150); History 101, 102, 103, 104, 106, 107, 108, 109, 119, 120; Music; Philosophy; Photography; Printing; Theatre Arts; Advanced Foreign Language; or the Diversified Major, 12-15 units |      |

## e. Electives

A maximum of 15 units of lower division electives taken in courses other than those listed in the above areas will be accepted. Courses which are NOT acceptable include most business courses, vocational courses, library courses, medical courses, orientation courses, and specifically sectarian religion courses. Health and physical education courses (maximum 4 units) and beginning and intermediate foreign language courses will be accepted as electives. Although a maximum of 15 elective units will be accepted, no elective units are required.

		Units
<b>Pepperdine University, Los Angeles</b>	a. Communication .....	3
	English 101	
	b. Ethnic Studies .....	3
	Social Science 121	
	c. History .....	6
	History 110 and Political Science 101, History 117-118	
	d. Humanities .....	6
	Art 101, 102, 103, 108	
	English 109 or 110	
	Music 120, 125, 126	
Philosophy 101, 113, 114, 116, 119, 120		
e. Social Science .....	6	
Economics 102		
History 106, 107, 108, 109		
Political Science 101, 102, 103, 110		
Psychology 101		
Social Science 131 or 132		
Sociology 101		
f. Natural Sciences and Mathematics .....	7*	
Anthropology 101		
Astronomy 101, Mineralogy 101		
Biology 101, 102, 121, 122, 124, 137		
Chemistry 101, 102, 110		
Geology 101 or 105		
Mathematics 101, 102		
Physics 105, 106, 110		
Physical Science 131, Paleontology 101, Geography 101		
	*Must include: one Lab course; courses in both life and physical science.	
g. Religion		
To be taken at Pepperdine (4 units required of those transferring with 60 units or more; 6 units with less than 60)		
h. General Studies .....	3	
A course in Great Issues to be taken in the upper division at Pepperdine.		

*Note:* The number of units acceptable for transfer in Junior Standing is 60-70. Students who have not completed courses listed above may be accepted with a view of completing the requirements at Pepperdine.

	Units	
<b>Pepperdine University, Seayer College (Malibu)</b>	a. Communication .....9 English 101 Course in Communication theory or Mass Communication Elective — Speech 101, Foreign Language, Drama, Journalism	9
	b. Fine Arts .....3 Art 101, 102, 103 Music 120, 125 or 126	3
	c. Humanities .....9 History 107, 108, 109; English 102, 105, 106, 109, 110; Philosophy 101, 119, 120	9
	d. Natural Science .....6* Astronomy 101 Biology 101, 102, 112, 122, 131, 137 Chemistry 101, 110 Geology 101, 105, 110 Philosophy 117 Physics 105, 106, 110 Mathematics 101, 102	6*
	*Must include: one lab course; courses in both life and physical science.	
	e. Religion .....6 To be taken at Pepperdine (4 units required of those transferring with 60 units)	6
	f. Social Science .....9 History 110 and Political Science 101; History 117-118 or Social Science 131-132 Social Science 121, Economics 101; Psychology 101, Sociology 101	9
	g. Physical Education .....4 Four Activity Courses	4
	<b>Stanford University</b>	
	University Requirements	
a. Writing Two courses are required: English 101 and 102.		
b. Humanities and Fine Arts Three courses are required. These are to be selected from beginning courses in the subject areas. Foreign language courses are included among the eligible ones.		
c. Social Sciences Three courses are required. History courses are included. The beginning courses in Anthropology, Communications, Economics, Geography, Polit-		



**United States International  
University, San Diego  
California Western Campus  
Elliott Campus**

- ical Science, Psychology, Sociology, and many introductory History courses are included among the eligible ones.
- d. Mathematics 103-104, 105-106; Natural Sciences; Biology 101, 102; Chemistry 101, 102, 110; Physics 101, 102, 103, 105, 106 and Technology. Three courses are required.
  - a. English  
English 101-102
  - b. Mathematics  
Select two courses:  
Mathematics 101, 102, 103, 104, 105, 106
  - c. Foreign Language  
Proficiency or completion of:  
Three semesters of any one language
  - d. History and Social Science  
Select one course from three different fields:  
Economics 101, 102  
History 102, 109, 117 and 118  
Political Science 101, 105  
Psychology 101, 131  
Sociology 101, Anthropology 102, 103
  - e. Humanities  
One course from each group:  
Group I  
Art 102, 113, 115  
Music 120, 125, 126  
  
Group II  
English 105, 106, 122, 123  
Speech 101, 102  
Theater Arts 103 and 104  
  
Group III  
Philosophy 101, 113, 114, 116, 117
  - f. Natural Science  
Completion of a minimum of eight semester units of science with at least one laboratory science.

**University of Southern California  
College of Letters, Arts,  
and Science**

The following courses are general education requirements which undergraduate students should strive to complete during their freshman and sophomore years. The requirements for junior standing are the completion of 60 units of transfer work.

	Minimum Units
a. General	
English 101 .....	3

- English 102, Speech 101, or Philosophy 117 .....3  
 One Foreign Language 101, 102, 103 .....12  
 A student may enroll at any point in the sequence determined by placement examination. A transfer student with college language may continue from the last course completed. Any student may take the USC placement test to determine whether this requirement is met.
- \*b. Humanities (refer to footnote) .....15  
 Four courses, at least one course from each of the three categories.
1. The Arts  
 Art 101-121, 126-129, 134-145, 147, 148  
 Music — all courses  
 Theater Arts 103, 104, 105, 121, 122, 131  
 (maximum 6 units each), 109, 110 (maximum 1 unit), 123 (maximum 4 units), 134
  2. Literature  
 English 105, 106, 109, 110, 115, 122, 123, 125, 126-129
  3. Philosophy and Religion  
 Philosophy 101, 113, 114, 116, 117, 119, 120
- \*c. Natural Sciences (refer to footnote) .....11  
 Three courses, from at least two of these categories:
1. Astronomy 101
  2. Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137
  3. Chemistry 101, 102, 103, 105, 106, 107, 110
  4. Geology 101-103, 105, 110; Paleontology 101; Oceanography 115
  5. Mathematics 101, 102, 103, 104, 105, 106, 138
  6. Physics 101, 102, 103, 104, 105, 106, 110, 111
  7. Physical Science 131
  8. Computer Science; Business 122, 124, 126, 127, 128, 130, 135; Mathematics 130
- \*d. Social Sciences (refer to footnote) .....15  
 Four courses, at least one course each from three of the four categories:
1. Communications  
 Journalism 101, 102  
 Speech 101, 102, 121
  2. History and Politics  
 History 101, 102, 103, 104, 106, 107, 108, 109, 110 or 117-118, 111, 112, 113, 119, 120, 151, 160  
 Political Science 101, 102, 103, 104, 105, 106, 110, 111
  3. Man and his Environment  
 Economics 101, 102, 105, 111  
 Geography 101, 102, 105

## 4. Human Behavior and Social Interaction

Anthropology 101, 102, 103

Psychology 101, 102, 110, 131

Sociology 101, 102

To satisfy the remaining general college requirements, the student should complete the following:

1. Select a major and complete the major requirements (see USC College of Letters, Arts, and Sciences Bulletin and advisor).
2. A student whose major falls in one of the three Humanities categories listed below must complete (a) 3 units in each of the remaining two humanities categories (b) 15 units in Social Sciences with at least 3 units in three of the four Social Science categories listed below (c) 11 units in Natural Sciences and Mathematics with at least 3 units in two or more departments listed below.
3. A student whose major falls in one of the four Social Science categories listed below must complete (a) 3 units in two of the remaining three Social Science categories (b) 15 units in the Humanities with at least 3 units in each of the three categories listed below (c) 11 units in Natural Sciences and Mathematics with at least 3 units in two or more departments listed below.
4. A student whose major is in the Natural Sciences and Mathematics division must complete either 15 units in Humanities and 11 units in Social Sciences or 15 units in Social Sciences and 11 units in Humanities. In either case, courses must be taken in at least 3 of the categories in Social Sciences and in all 3 categories in Humanities.

\*See your counselor for requirements for Humanities, Natural Sciences, or Social Sciences majors, since the unit requirements in each category are determined by a student's major.

**Whittier College** Recommendation for Breadth Requirements. Although Whittier College has no specific requirements for general education for freshmen and sophomores to meet, it does advise prospective transfer students to pursue a broad program of academic course work in the divisions of natural science, social science, and humanities. (For details about the College, its characteristics and offerings, please refer to the catalog.)

Guidelines for Admissions. A GPA of 2.0 (all academic work of the grades "C-" and above transferable; course work not ordinarily transferable, often technical or vocational in nature, may be transferable within the first term on campus if a student can justify it relative to his or her "educational design;" a maximum of 70 semester hours of credit accepted);

Fifty-nine or fewer semester hours presented: minimum high school preparation expected (one or more subject requirements may be waived in lieu of comparable work): 3 units of English, 2 units of one foreign language, 2 units of mathematics, 1 unit of a laboratory science, and 1 unit of history;

Thirty or fewer semester hours presented: results of either the Scholastic Aptitude Test (SAT) or American College Test (ACT) required.

**Admission Regulations** Admission standards are prescribed by the Board of Trustees of the California State University and Colleges and are set forth in each college catalog and in Title 5 of the California Administrative Code. The following is a summary of the provisions of concern to the majority of prospective students.

*Freshmen*—Eligibility is determined by grade point average earned on all subjects except physical education and military science during the last three years of high school and results of either the American College Test or the Scholastic Aptitude Test. A weighted combination of these two items provides an eligibility index. A California high school graduate or resident must have an index placing him among the upper  $\frac{1}{3}$  of California high school graduates. The minimum required eligibility index is 3072 (grade point average multiplied by 800, plus the total SAT score) or 741 (grade point average  $\times$  200 plus 10  $\times$  ACT composite score).

Nonresidents who are graduates of high schools in other states must have an eligibility index sufficiently high to place them among the upper  $\frac{1}{6}$  of California high school graduates. The computation is identical, but the minimum index required is 3402 with SAT, or 826 with ACT.

Procedures for the admission of other students as first-time freshmen, such as students who are graduates of foreign high schools, adults who are not high school graduates as well as admission to special programs for high school seniors, vary from college to college. However, eligibility is in all cases based upon criteria designed to assure equivalent likelihood of success.

*Transfers*—Applicants for admission as transfers from an accredited college or university may be admitted if they were in good standing in the last institution attended and meet either of the following provisions:

1. Students eligible for admission as first-time freshmen either on the basis of requirements in effect at time of application or, if college attendance has been continuous and full-time, on the basis of requirements in effect at time of high school graduation, may be admitted to a CSUC campus provided they have maintained a grade point average of at least 2.0 in all transferable college work attempted.
2. Students not eligible for admission as first-time freshmen may be admitted to a CSUC campus provided they have completed at least 56 semester units of transferable college credit and have maintained a grade point average of at least 2.0 in all such work attempted.

Certain exceptions to the above requirements may be made in rare instances when in the opinion of the college there is evidence of ability to succeed.

Bakersfield, Chico, Dominguez  
Hills, Fresno, Fullerton,  
Hayward, Humboldt, Long Beach,  
Los Angeles, Northridge,  
Polytechnic (Kellog-Voorhis,  
San Luis Obispo), Sacramento,  
San Bernardino, San Diego,  
San Francisco, San Jose,  
Sonoma, Stanislaus

### General Education Requirement

#### History and Constitution Requirement

All students seeking a baccalaureate degree are required by California law to demonstrate competence in the Constitution of the United States, in American History, including the study of American institutions and ideals, and in the principles of state and local government established under the Constitution of the State of California. Courses satisfying all or part of this requirement are: Economics 111, History 117, 118, Political Science 101, 106, Social Science 131-132.

#### Breadth Requirement

Breadth Requirement courses which the President of Glendale Community College or his designated officer will certify as meeting the intent expressed in Administrative Code, Title V, section 40405. (Students will complete a minimum of forty (40) units from this list.)

#### 1. Natural Science

A minimum of three (3) courses must be selected, one of which must be from physical science and one from biological science.

##### Biological Science:

Anthropology 101

Biology 101, 102, 112, 120, 121, 122, 123, 124, 125, 130, 137

Paleontology 101

##### Physical Science:

Astronomy 101

Chemistry 101, 102, 103, 105, 106, 107, 110

Geography 101

Geology 101, 102, 103, 104, 105, 110

Oceanography 115

Physics 101, 102, 103, 105, 106, 110, 111

Physical Science 131

#### OK 2. Social Science

A minimum of three (3) courses must be selected from Social Sciences

Psychology 101

Anthropology 102, 103

Economics 101, 102, 105

Geography 102, 105

History 101, 102, 103, 104, 106, 107, 108, 109, 111, 112, 113, 119, 120

Political Science 102, 103, 104, 108, 110

Psychology 102, 131

Social Science 101, 102, 121, 122

Sociology 101, 102, 105

3. Humanities

A minimum of three (3) courses must be selected from Humanities.

Art 101, 102, 103, 106, 107, 108, 110, 180

English 105, 106, 109, 110, 115, 127, 128

French 125, 126

Music 101, 104, 105, 106, 107, 108, 109, 114, 120, 125, 126, 138

Philosophy 101, 113, 114, 116, 119, 120

Spanish 124, 125, 126

4. Basic Subjects:

A minimum of three (3) courses must be selected from Basic Subjects

English 101 (Required)

Speech 101

Business 101, 102, 111, 112, 161

English 102

Economics 107

Health 101, 103

Home Arts 105

Journalism 101, 102

Mathematics 101, 102, 103, 104, 105, 106, 138

Philosophy 117

Physical Education 125, 285

Political Science 107

Psychology 107

Sociology 107

Spanish 115, 116

All Foreign Languages

# Faculty

- Abernathy, C. Cecil .....Assistant Professor of Mathematics  
 B.A., Southern Missionary College, Tennessee Specialist,  
 M.A., California State University, Long Beach Cooperative Education
- \*Adams, Patricia L. ....Assistant Professor of Psychology  
 B.A., Drew University, New Jersey  
 M.A., California State University, Los Angeles  
 Ph.D., University of Southern California
- \*Alt, Arthur .....Instructor in Anthropology  
 B.S., M.A., California State University, San Diego  
 B.A., University of California at Los Angeles
- Anderson, Clara Jo .....Professor of Business  
 B.S., Indiana University  
 M.Ed., University of California at Los Angeles
- Androff, Abram A. ....Professor of Health and Physical Education  
 B.S., M.S., University of Southern California Head Basketball Coach
- Anslyn, Samuel S. ....Associate Professor of Technical Education  
 Twenty-five years experience in industrial graphic design field
- \*Arguelles, Lucy .....CETA-Counselor  
 A.A., Los Angeles City College  
 B.A., M.S., California State University, Los Angeles
- \*Ayres, Noreen .....Instructor in English  
 B.A., M.A., California State University, Los Angeles
- \*Baker, Mrs. Joann N. ....Assistant Professor of English  
 B.S., Woodbury College  
 B.A., Occidental College  
 M.A., Syracuse University
- \*Baker, William Paul .....Assistant Professor of Art  
 B.F.A., M.F.A., University of Southern California
- \*Balkin, John .....Instructor in Music  
 B.Mus., M.M.E., Manhattan School of Music
- Bangs, Olive .....Assistant Professor of English  
 A.B., Pasadena City College  
 M.A., California State University, Los Angeles
- \*Barnes, John B. ....Instructor in English  
 B.A., Occidental College

\*Part Time





- Boyles, August C. . . . . Instructor in Applied Science  
 FAA Ratings: Commercial, Single and Multi Engine Land Flight Instructor  
 (CFI) Airframe and Powerplant Mechanic
- Brighthouse, Jeb . . . . . Associate Professor of Political Science  
 A.B., Occidental College  
 M.A., University of California at Los Angeles
- \*Brokop, Jewell . . . . . Instructor in Business  
 A.A., Los Angeles City College
- \*Brooks, Keir . . . . . Assistant Professor of Real Estate  
 A.B., University of California at Berkeley  
 Real Estate Certificate, Los Angeles Pierce College and  
 University of California at Los Angeles
- Brophy, John W. . . . . Assistant Professor of Business  
 B.S., Wayne State University, Michigan  
 M.A., California State University, Los Angeles
- Brown, Robert W. . . . . Professor of Art  
 A.B., California State University, San Francisco  
 M.F.A., California College of Arts and Crafts  
 M.F.A., University of Southern California
- \*Brown, Roger L. . . . . Instructor in Administration of Justice
- \*Bungay, David . . . . . Assistant Professor of Art  
 B.S., University of Southern California  
 M.F.A., University of California, Los Angeles
- \*Busailah, Mohammad . . . . . Instructor in Business  
 B.S., University of Arizona, Tucson  
 M.S., Woodbury University, Los Angeles
- Byrd, Larry R. . . . . Instructor in Chemistry  
 B.S., St. Mary's College of California  
 Ph.D., University of California at Irvine
- \*Calabro, Anthony . . . . . Instructor in Real Estate  
 L.L.B., Southwestern University
- \*Camillo, Armand . . . . . Instructor in Business
- \*Campbell, Louise B. . . . . Instructor in Art  
 M.A., University of California at Los Angeles
- \*Campbell, Scott M. . . . . Instructor in Business  
 B.A., Chico State College

\*Part Time

- Carter, Norma B. . . . .Assistant Professor of Home Arts  
 B.A., Fairmont State College, West Virginia  
 M.S., University of California at Berkeley
- \*Castaldo, Dino . . . . .Instructor in Italian  
 J.D., University of Milan (Italy)  
 M.S., University of California, Los Angeles
- \*Catania, Robert F. . . . .Instructor in History  
 A.B., Stanford University  
 M.A., Harvard University
- \*Cease, Doreen . . . . .Instructor in Music  
 B.M., Texas University of Arts and Industries
- Cease, Wesley . . . . .Associate Professor of Music  
 B.A., California State University, San Francisco  
 Diplom, Paris Conservatory of Music  
 Diplom, University of Heidelberg  
 Graduate — Diplom, Badische Musikhochschule
- Choi, Delight . . . . .Instructor in Allied Health
- \*Christensen, Dan . . . . .Instructor in Administration of Justice  
 M.P.A., University of Southern California
- Cicuto, John M. . . . .Instructor in Health and Physical Education  
 B.A., California State University, Fresno
- \*Clark, John T. . . . .Instructor in Carpentry  
 B.A., California State University, Los Angeles
- \*Clement, Enid . . . . .Instructor in Music  
 Diploma (Befertigung), Hochschule für Musik, Hamburg, Germany  
 B.A., California State University, San Diego  
 M.A., California State University, Los Angeles
- Cochrane, Harold B. . . . .Dean, Guidance and Counseling  
 A.A., Los Angeles Pacific College  
 A.B., M.A., Ed.D., University of Southern California
- Coleman, Donald V. . . . .Professor of Biology  
 B.S., George Pepperdine College  
 M.A., California State University, Los Angeles
- Conway, Daniel E. . . . .Instructor in Psychology  
 A.A., Hudson Valley College, New York  
 B.A., State University of New York  
 M.A., Pepperdine University  
 Educational Psychologist License, State of California  
 Family Counseling License, State of California

\*Part Time

- \*Corbally, John .....Instructor in English  
B.A., M.A., California State University, Los Angeles
- Cortey, Teresa .....Instructor in French  
B.A., M.A., Ph.D., University of California at Berkeley
- \*Craig, Wallace .....Instructor in Health and Physical Education  
B.A., Occidental College  
M.A., University of Pacific
- \*Crandall, William H. ....Assistant Professor of History  
B.A., M.A., California State University, Los Angeles
- Craven, John B. ....Professor of English  
A.B., La Sierra College  
M.A., University of Southern California
- Crippen, Elizabeth B. ....Counselor  
B.Ed., University of California at Los Angeles  
M.A., University of Southern California  
C.P.A., State Board of Accountancy, California
- Cudney, Larry L. ....Instructor in Mathematics  
A.A., Santa Monica City College  
B.A., M.A., University of California at Los Angeles
- Cunningham, Jeanne E. ....Instructor in Psychology  
A.A., Glendale Community College  
B.A., California State University, Los Angeles  
M.S.W., University of Southern California
- Daly, Michael J. ....Associate Professor of English  
B.A., California State University, Northridge  
M.A., Ph.D., University of Southern California
- Davenport, David A. ....Associate Professor of Chemistry  
A.A., Glendale Community College  
B.S., University of California at Berkeley  
M.S., California State University, Northridge
- Davidson, Ruth E. ....Assistant Professor of Allied Health  
R.N., New York University, Bellevue School of Nursing Division Chairman  
A.B., M.A., California State University, Los Angeles
- Davitt, John A. ....Administrative Dean, Student Personnel Services  
B.S., M.A., University of San Francisco
- DeFrain, Patricia L. ....Assistant Professor of Business  
B.S., Ohio State University  
M.A., University of Washington

\*Part Time

- DeGrassi, Leonard R. ....Professor of Art  
A.B., B.F.A., M.A., University of Southern California  
Corso Perfezionamento Storia d'Arte, Universita di Roma
- \*Dennis, Patrick .....Instructor in Mathematics  
A.B., California State University, San Diego  
M.A., Claremont Graduate School
- \*Derksen, Carl .....Instructor in Television Repair  
B.S., Kansas State University  
M.A., California State University, Los Angeles
- \*Deuel, Richard .....Instructor in Health and Physical Education  
B.S., Pepperdine College  
M.S., Pepperdine University
- \*Dionis, Robert C. ....Instructor in Aviation and Transportation  
A.A., Los Angeles City College  
B.S., California State University, Los Angeles
- DiPietro, Harriet Louise .....Associate Professor of Speech  
A.B., M.A., University of Southern California
- \*Donner, Richard .....Instructor in Physics  
B.S., University of California at Los Angeles  
M.S., California State University, Northridge
- Donovan, Blanche K. ...Associate Professor of Health and Physical Education  
A.B., Occidental College Division Chairman  
M.A., California State University, Los Angeles
- Doyle, Mark A. ....Professor of Sociology  
B.S., Villanova University  
M.S., University of Pennsylvania
- Dozois, Paul C. ....Instructor in Engineering  
A.A., Glendale Community College  
B.A., California State University, Los Angeles  
M.A., California State University, San Jose
- \*Dwyer, John W. ....Coordinator, Admissions and Records  
B.A., M.S., California State University, Los Angeles
- \*Edelman, Bart .....Instructor in English  
B.A., M.A., Hofstra University, New York
- \*Ehlert, Keith .....Instructor in Geology  
A.A., Pierce College  
B.S., M.S., California State University, Los Angeles
- \*Enderlin, Priscilla .....Instructor in Emergency Medical Technology

\*Part Time

- \*Erselius, Robert .....Instructor in Accounting  
B.S., University of California at Los Angeles  
M.B.A., University of Southern California
- \*Fava, Gina .....Instructor in Italian  
B.A., M.A., California State University, San Francisco
- Fischer, Egbert D. ....Associate Professor of Physics  
A.B., Sam Houston State College  
M.A., University of Texas
- \*Fisher, Anthony B. ....Instructor in Business  
B.S. Northeastern University
- \*Fisher, Everett .....Professor of Applied Science
- \*Florence, Gregg .....Instructor in Speech  
A.A., Bakersfield College  
B.A., M.A., California State University, Long Beach
- \*Forcier, Arthur A., Jr. ....Instructor in Political Science  
B.S., Boston College  
M.A., Boston University
- \*Fox, Louis .....Instructor in English  
B.A., M.A. California State University, Los Angeles
- \*Friedman, Adrienne .....Instructor in English  
B.A., Fort Lewis College  
M.A., California State University, Northridge
- \*Friedman, Florence .....Instructor in Business  
R.N., Los Angeles County General Hospital School of Nursing  
B.S., California State University, Los Angeles  
M.A., Pasadena College
- \*Friedman, Martin .....Instructor in Astronomy  
B.A., M.S., University of California at Los Angeles
- Friedrich-Mejia, Erika .....Professor of German  
B.A., M.A., University of Arizona  
M.A., Azusa Pacific College  
Diplom, Sprachenschule der Landeshauptstadt München  
Certificado de Estudios, Universidad De San Carlos de Guatemala
- \*Frueh, Stephen .....Instructor in Psychology  
M.Div., Ph.D., Fuller Theological Seminary
- Gallucci, Linda ,. ....Counselor, Financial Aid Officer  
B.A., M.S., California State University, Los Angeles

\*Part Time

- \*Gardner, Ann C. . . . . Assistant Professor of Sociology  
 B.A., University of North Carolina at Greensboro  
 M.A., University of North Carolina at Chapel Hill
- \*Gatewood, David . . . . . Instructor in Philosophy  
 A.A., Michigan Christian College  
 B.A., M.S., Abilene Christian University  
 M.A., Fuller Theological Seminary
- \*Geale, Paul E. . . . . Instructor in Geography  
 A.B., University of California at Los Angeles  
 M.A., California State University, Los Angeles
- \*Geldman, Stephen . . . . . Instructor in Art  
 M.F.A., University of California at Irvine
- Georgias, Andrew J. . . . . Assistant Professor of Art  
 B.F.A., Bradley University, Illinois  
 M.F.A., University of Southern California
- Girard, Kindra A. . . . . Instructor in Biology  
 B.S., M.A., University of California at Davis
- \*Glanville, Jerold S. . . . . Instructor in Aviation and Transportation
- Glienna, Raymond . . . . . Instructor in Chemistry  
 B.S., University of Southern California  
 M.S., Ph.D., University of California at Berkeley
- Goddard, Frank L. . . . . Professor  
 A.B., M.A., Occidental College
- Gonzales, James E. . . . . Professor of Architecture  
 A.B. Adams State College, Colorado
- Grande, John A. . . . . President-Assistant Superintendent  
 M.A. California State University, Los Angeles  
 Ph.D., University of Southern California
- \*Green, Jill . . . . . Instructor in English  
 B.A., University of Michigan  
 M.A., Northwestern University
- Griffin, Hope C. . . . . Associate Professor of Business  
 A.B., University of California at Berkeley  
 M.A., California State University, San Francisco
- \*Griffith, Linda . . . . . Instructor in English  
 B.A., Reed College, Portland, Oregon  
 M.A., University of Wisconsin
- \*Griffiths, R. Wayne . . . . . Instructor in Photography  
 M.F.A., Art Center College of Design

\*Part Time

- Gross, Louis .....Professor of Art  
A.B., University of California at Berkeley  
M.F.A., California College of Arts and Crafts
- Guilmette, Collin S. ....Professor of History.  
A.B., M.S., University of Southern California
- \*Gulbrandson, A. Vinton .....Assistant Professor of Supervision  
A.B., University of California at Los Angeles
- Hallberg, Veloris B. ....Assistant Professor of English  
A.B., M.A., Stanford University
- \*Halsey, Pamela .....Instructor in Health and Physical Education  
A.A., Long Beach City College  
B.A., M.A., University of California at Los Angeles
- Hammer, Jeanann .....Instructor in Allied Health
- \*Hampton, John .....Assistant Professor of Administration of Justice  
Certificate Police Administration, University of Southern California  
Trade Vocational Credential, University of California at Los Angeles  
L.L.B., J.D., Southwestern University
- \*Haney, Landon C. ....Instructor in Real Estate  
A.A., Glendale College  
B.A., California State University, Northridge
- Hanley, Timothy G. ....Assistant Professor of English  
B.A., M.A., California State University, Los Angeles
- Hardison, Richard C. ....Professor of Psychology  
A.B., M.A., Occidental College  
Ed.D., University of Southern California
- \*Harris, Odell .....Instructor in Psychology  
B.A., San Jose State University  
M.A., Stanford University  
Ph.D., University of California at Berkeley
- \*Hartman, Charles O. ....Assistant Professor of Drafting
- Harvey, Sally J. ....Associate Professor of Spanish  
A.B., University of California at Los Angeles  
M.A., Inter-American School of Spanish, Mexico
- Hawkins, Drake C. ....Assistant Professor of Political Science  
B.S., U.S. Naval Academy, Annapolis  
M.A., University of California at Los Angeles
- Hawkins, Robert N. ....Associate Professor of Geography  
B.A., California State University, Los Angeles  
M.A., University of California at Los Angeles

\*Part Time

- \*Hayne, Richard .....Instructor in Emergency Medical Technology
- \*Helwig, Delores .....Instructor in Real Estate
- High, Wallace S. ....Associate Professor of Psychology  
A.A., Modesto Junior College  
A.B., University of California at Santa Barbara  
M.A., California State University, San Jose
- \*Hilberman, Robin .....Instructor in Spanish  
B.A., M.A., University of California at Los Angeles
- \*Hill, William F. ....Assistant Professor of Mathematics  
B.A., University of California at Los Angeles  
M.A., California State University, Los Angeles
- \*Hirshberg, Jennefer A. ....Instructor in English  
B.A., Cornell University  
M.A., California State University, Los Angeles
- \*Holland, David .....Instructor in Health and Physical Education  
B.S., B.A., California State University, Hayward  
D.C., Los Angeles College of Chiropractic
- Hollett, Judy K. ....Instructor in Allied Health  
R.N., Bethany Hospital School of Nursing
- \*Holmes, Robert K. ....Instructor in Business  
B.A., University of Southern California  
J.D., Southwestern University
- \*Holmwood, Meryl W. ....Assistant Professor of Supervision
- \*Hoover, Leroy .....Instructor in Economics  
B.A., University of California at Los Angeles  
M.A., Ph.D., University of Southern California
- Horton, Ernest H., Jr. ....Professor of Philosophy  
A.B., Los Angeles Pacific College  
B.D., Asbury Theological Seminary  
Ph.D., University of Southern California
- Huber, Walter R. ....Assistant Professor of Business  
A.A., Mount San Antonio College  
B.S., M.S., California State University, Los Angeles
- \*Hudson, Robert .....Instructor in Health and Physical Education  
A.B., Occidental College
- Hurst, David O. ....Associate Professor of Chemistry  
B.S., Wheaton College  
M.S., University of Illinois

\*Part Time



- \*Hurst, Donald .....Instructor in Real Estate
- \*Hurst, John E. ....Assistant Professor of Administration of Justice
- \*Irace, Kathleen O. ....Instructor in English  
B.A., Indiana University  
M.A., Purdue University
- \*Isenberg, Roberta .....Instructor in Music  
B.A., M.A., Occidental College
- Ives, Charlotte A. ....Associate Professor of Spanish  
B.A., M.A., University of California at Santa Barbara
- \*Jakl, Leonard .....Instructor in Real Estate  
B.A., California State University, Los Angeles
- \*Janes, Clifford .....Instructor in Psychology  
B.A., University of California at Berkeley  
M.A., California State University, Los Angeles
- Janicki, Cyril B. ....Professor of Speech  
A.B., Central Y.M.C.A. College, Chicago  
M.A., Northwestern University
- \*Javonovich, Joann .....Instructor in Career Education  
B.A., Indiana University of Pennsylvania  
M.A., Goddard College
- \*Jennings, William .....Instructor in Economics  
B.A., California State University, Hayward  
M.A., University of California at Los Angeles
- Johnson, Clyde .....Assistant Professor of Art  
A.A., Pikeville College  
A.B., Eastern Kentucky State University
- \*Johnson, Helen .....Instructor in History  
B.A., M.A., University of California at Santa Barbara
- Jones, Ivan L. ....Administrative Dean, Instruction  
A.A., Modesto Junior College  
B.A., M.A., University of Washington, Seattle  
Ed.D., University of California at Los Angeles
- Jones, W. Mack .....Associate Professor of Applied Science
- \*Jordan, George .....Instructor in Real Estate  
B.S., University of Pittsburgh  
G.R.I., California Association of Realtors
- \*Jordan, Jimmy C. ....Instructor in Mathematics  
B.A., Occidental College

\*Part Time

- \*Kadomatsu, Gary .....Instructor in Mathematics  
B.A., M.A., University of California at Los Angeles
- \*Kaufman, Leonard .....Instructor in Psychology  
B.A., California State University, Los Angeles  
M.A., Pepperdine University
- Keefe, Joseph M. ....Instructor in Botany  
B.A., M.A., University of California at Santa Barbara
- \*Keenan, Mary Alice .....Instructor in Home Arts  
B.S.M.E., Newark College of Engineering, Newark, New Jersey  
M.A., Pacific Oaks College
- Kellogg, L. Edmund .....Instructor in Business  
B.A., University of Notre Dame  
M.A., California State University, Los Angeles  
J.D., Van Norman University
- Kern, David E. ....Associate Professor of Applied Science  
A.A., Glendale Community College Division Chairman  
B.V.ed., California State University, Long Beach  
FAA Ratings: Commercial Pilot, Flight Instructor, Airframe and Powerplant,  
Advanced Ground Instructor, Authorized Inspector, Accident Prevention Coun-  
selor, Designated Examiner, Instrument Instructor
- \*Khoubesserian, Evelyn .....Instructor in French  
M.A., State Pedagogical University of Foreign Languages  
Faculty of French Language, EREVAN-Armenia
- Kilkeary, Desmond B. ....Instructor in English  
B.A., California State University, Humboldt  
M.A., California State University, Los Angeles
- \*Kinsey, Julia .....Instructor in English  
B.A., M.A., University of Southern Mississippi
- \*Kirkeby, Carolee .....Instructor in Business  
B.A., M.A., Ball State University
- \*Kirkeby, Lenny .....Instructor in Business  
B.A., Pacific Lutheran University  
M.A., University of Southern California
- \*Kliewer, Grace .....Instructor in Music  
A.A., Reedley Community College, Reedley, California  
B.A., Mills College, Oakland, California
- \*Knecht, Mrs. Jane .....Assistant Professor of Music  
B.A., University of California at Los Angeles  
M.A., California State University, Los Angeles

\*Part Time

- Koploy, Bonnie R. . . . . Assistant Professor of Biology  
B.S., M.A., California State University, Los Angeles      Division Chairman
- \*Kuebler, Donald . . . . . Instructor in Technical Graphics
- \*Kutcher, Steven . . . . . Instructor in Biology  
A.A., Los Angeles Pierce College  
B.S., University of California at Davis  
M.A., California State University at Long Beach
- \*Larson, Fred . . . . . Instructor in Business  
B.S., Bryant College, Providence, Rhode Island
- \*La Salvia, Louis . . . . . Instructor in Home Arts  
B.A., M.A., Arizona State University
- Lashley, Virginia L., C.D.E. . . . . Assistant Professor of Business  
A.B., University of Kansas  
M.A., Occidental College
- \*Laubacher, Robert . . . . . Instructor in Art Metal and Jewelry  
A.A., Glendale Community College  
B.A., University of Southern California
- \*Lauter, Elva R. . . . . Instructor in English  
B.A., M.A., University of Oregon
- Layton, Gordon, L. . . . . Associate Professor of Applied Science  
A.A., Los Angeles Valley College  
FAA Ratings: AP Mechanic License  
Commercial Pilot License with Multi Engine Rating  
Designated Mechanic Examiner, Authorized Inspector
- Leek, Anne . . . . . Associate Professor of Business  
B.S., Indiana University of Pennsylvania, Indiana, Pennsylvania  
M.A., New York University
- Leek, David C. . . . . Administrative Dean, Continuing Education  
A.B., Huron College  
M.A., Willamette University
- LeMieux, Hilary J. . . . . Associate Professor of Health and Physical Education  
D.P.E., University of Otago, New Zealand  
Dip. Tchg., Auckland Teachers College, New Zealand  
M.S., University of Wisconsin
- \*Lewis, Martha Dee . . . . . Instructor in Aviation & Transportation
- \*Lienhard, Jerome T. . . . . Assistant Professor of Business  
B.E.E., University of Detroit

\*Part Time

- Lienhard, Patricia A. . . . .Coordinator — Women's Services  
 B.A., Immaculate Heart College  
 M.S., California State University, Los Angeles
- \*Lienhard, Thomas G. . . . .Assistant Professor of Business  
 B.E.E., University of Detroit  
 M.B.A., University of Southern California
- Linebaugh, Alven E. . . . .Assistant Professor of Applied Science  
 FAA Ratings: Commercial Pilot, Flight Instructor Airplanes and Instruments,  
 Ground Instructor Advanced and Instrument
- \*Liotta, Gaspar J. . . . .Assistant Professor of Photography  
 B.A., University of California at Los Angeles  
 M.A., California State University, Los Angeles
- Livingood, Earl R. . . . .Professor of History  
 A.A., Santa Monica City College  
 A.B., M.A., University of California at Los Angeles
- \*Livingston, Michael . . . . .Instructor in Printing  
 B.S., California State College of Pennsylvania
- \*Lloyd, Beverly . . . . .Instructor in English  
 B.A., Fairmont State College, West Virginia  
 M.A., Miami University, Oxford, Ohio
- \*Loftus, Raymond . . . . .Instructor in Real Estate  
 B.S.C., De Paul University
- Lynch, Chester B. . . . .Professor of Mathematics  
 A.B., M.A., Occidental College  
 Division Chairman
- \*Macumber, Richard . . . . .Instructor in Supervision  
 B.A., University of Southern California  
 M.A., California State University, Los Angeles  
 M.B.A., Pepperdine University
- \*Malinowski, Louis E. . . . .Instructor in Engineering  
 B.A., University of Minnesota  
 M.Ed., University of North Dakota
- Mallory, William L. . . . .Assistant Professor of Applied Science  
 A.S., Pierce College  
 B.V.Ed., California State University, Los Angeles  
 FAA Ratings: Airframe and Powerplant
- Manker, Virginia M. . . . .Associate Professor of Health and  
 B.S., University of Arizona  
 Physical Education  
 M.Ed., Oregon State University

\*Part Time

- Marsden, Steven P. .... Instructor in Mathematics  
B.A., M.A.T., University of California at Los Angeles
- \*Marsh, Walter E. .... Assistant Professor of Mathematics  
B.A., Pasadena College
- \*Martin, Donna ..... Instructor in Flight Attendant  
A.A., Mesa College
- \*Martinoff, James ..... Instructor in Biology  
B.S., University of California, Irvine  
M.Ed., Wayne State University  
M.A., University of Southern California
- Mayo, Paul E. .... Assistant Professor of Music  
B.Mus., University of Southern California
- \*McCann, Lynn ..... Associate Professor of Speech  
A.A., Glendale Community College  
B.A., M.A., San Francisco State University
- \*McClelland, P. Maureen ..... Instructor in Home Arts  
B.S., M.A., Pacific Oaks College
- McCuen, Jo Ray ..... Professor of English  
A.B., Pacific Union College  
M.A., Ph.D., University of Southern California
- McDonald, E. Lane ..... Assistant Professor of Biology  
B.S., University of Missouri  
M.A., University of California at Los Angeles
- \*McEachern, Wayne ..... Instructor in Business  
B.S., Lewis and Clark College  
M.S., University of Southern California
- McGuire, Barbara N. .... Coordinator — Parent Education and Home Arts,  
B.A., University of California at Los Angeles                     Adult Education  
M.A., Teachers College, Columbia University
- McKennon, H. Dean ..... Assistant Professor of Theater Arts  
A.A., Glendale Community College  
B.A., M.A., University of California at Los Angeles
- McMahon, Mary ..... Counselor  
B.A., Mundelein College, Illinois  
M.A., Claremont Graduate School
- \*McMurray, Thomas ..... Instructor in Health and Physical Education  
B.A., California State University at Los Angeles

\*Part Time

- \*Meinecke, Richard O. ....Instructor in Psychology  
A.B., University of California at Riverside  
M.A., University of California at Los Angeles
- Mercadé, José A. ....Assistant Professor  
A.A., Pasadena City College  
B.A., M.S., California State University, Los Angeles
- Mesec, Murray .....Professor of Health and Physical Education  
B.S., M.A., Northwestern University
- \*Miley, George W. ....Instructor in Supervision
- Miller, Emil A. ....Professor of Applied Science  
B.V.E., M.A., California State University, Los Angeles      Division Chairman
- \*Mills, Arthur .....Instructor in Art  
B.S., Johns Hopkins University
- Mondrus, Martin .....Professor of Art  
A.B., California State University, Los Angeles  
M.F.A., Claremont Graduate School
- \*Montante, Angelo Thomas .....Instructor in History  
A.A., Santa Monica City College  
B.A., University of California at Los Angeles  
M.A., California State University, Northridge  
C.Phil., University of California at Los Angeles
- Moody, Margaret J. ....Associate Professor of History  
A.A., Los Angeles City College  
A.B., M.A., University of Southern California  
M.A., California State University, Northridge
- \*Moore, Georgia J. ....Assistant Professor of Philosophy  
A.B., Augustana College, Illinois  
M.A., University of Illinois
- Morros, George P. ....Professor  
A.B., M.A., University of Southern California
- \*Morton, Howard G. ....Instructor in Real Estate
- \*Naylor, Richard .....Instructor in English  
B.A., M.A., California State University at Los Angeles
- \*Neilson, Ralph R. ....Instructor in Business and Real Estate  
B.S., Brigham Young University  
M.B.A., Utah State University

\*Part Time

- Neufeld, Helen H. ....Associate Professor of Chemistry  
B.S., Murray State University, Kentucky  
M.S., University of Redlands  
M.Sc., University of London
- \*Newman, Harold D. ....Instructor in Real Estate  
B.A., Loyola University  
M.A., California State University, Los Angeles
- Nibley, Linda S. ....Assistant Professor of English  
A.B., M.A., University of California at Los Angeles
- \*Nicoll, William .....Instructor in Banking
- \*Nissen, Edward .....Assistant Professor of Accounting  
B.S., Midland College  
M.A., Omaha University
- \*Noon, Charles .....Instructor in Fire Science
- Norman, Russell F. ....Professor of Business  
B.S., M.Ed., University of California at Los Angeles
- Norris, Lee .....Assistant Professor of Applied Science
- Novinger, Anne Marie .....College Nurse  
A.A., Pasadena City College  
B.A., California State University, Los Angeles
- Nunn, Marshall E. ....Professor  
A.B., Stanford University  
M.S.L.S., University of Southern California
- Nunnelee, B. H. (Jim) .....Instructor in Applied Science  
B.S., Northrop Institute of Technology  
FAA Ratings: Private Pilot, Airframe and Powerplant
- \*O'Keefe, William F. ....Instructor in Administration of Justice  
A.A., Glendale Community College
- \*Olynyk, Roman .....Instructor in Business  
B.S., M.S., Ohio State University
- \*O'Neil, Margaret .....Instructor in English  
B.A., St. Mary's College  
M.A., Creighton University
- \*Owens, Arthur E. ....Instructor in Accounting  
B.A., California State University, Los Angeles
- \*Pack, Richard .....Instructor in Geography  
B.A., University of California at Los Angeles  
M.S., Oregon State University

\*Part Time

- Parker, William L. ....Professor of Philosophy  
A.B., Pasadena College (Nazarene)  
M.A., University of Southern California
- \*Pawlicki, Priscilla .....Instructor in Music  
B.A., Brandeis University  
M.A., University of California at Los Angeles
- \*Pelletier, Patricia .....Instructor in Business  
B.A., M.A., Pasadena College
- \*Perry, Jean .....Instructor in Speech  
B.A., M.A., University of Southern California
- \*Peyton, William M. ....Assistant Professor of Accounting  
B.S., University of California at Los Angeles  
M.B.A., University of Southern California
- \*Phillips, Penelope .....Instructor in Speech  
A.A., Glendale Community College  
B.A., California State University at Los Angeles  
M.A., University of Southern California
- \*Plunkett, Harry L. ....Assistant Professor of Business  
B.S.E.E., University of Illinois  
L.L.B., New York University and Southwestern School of Law  
J.D., Southwestern University
- \*Podolsky, John .....Instructor in Aviation and Transportation  
B.S., Massachusetts Institute of Technology
- \*Powell, Harold .....Instructor in Social Science  
B.A., University of Redlands  
M.A., University of Southern California
- Pratt, Anne .....Instructor in Allied Health  
R.N., Union Hospital Nurses Training School, Fall River, Massachusetts  
P.H.N., St. John's University, New York
- Puglia, Joseph .....Counselor  
B.S., University of Dayton, Ohio  
M.S., California State University, Los Angeles
- \*Purser, George .....Instructor in Aviation and Transportation  
B.A., California Lutheran College
- \*Rankin, Dorothy .....Instructor in English  
B.A., Occidental College  
M.A., California State University, Northridge
- \*Reegler, Suzanne .....Instructor in Aviation and Transportation

\*Part Time



- \*Reich, Naomi .....Instructor in Business  
B.S., Indiana State Teachers College
- Reinbolt, Dwain O. ....Dean, Admissions and Records  
A.A., Pasadena City College  
A.B., M.A., M.S., California State University, Los Angeles
- \*Reinecke, Callie .....Instructor in Art  
B.A., Coe College  
M.A., California State University, Los Angeles
- Reinhard, C. William ...Associate Professor of Health and Physical Education  
A.B., University of California at Berkeley Division Chairman
- \*Reis, Ronald A. ....Instructor in Architecture  
B.A., M.A., California State University, Los Angeles
- \*Reuter, Virginia S. ....Instructor in Business  
Reyes, Raymond A. ....Counselor  
A.A., East Los Angeles College  
B.A., California State University, Los Angeles  
M.A., California Lutheran College
- \*Ricewasser, Robert B. ....Instructor in Aviation and Transportation  
B.A., M.A., California State University, Los Angeles
- \*Riebling, Robert W. ....Instructor in Economics  
B.Ch.E., M.Ch.E., Polytechnical Institution of New York  
M.B.A., University of California at Los Angeles  
Registered Professional Engineer (Mechanical) State of California
- \*Ritzhaupt, Emil .....Instructor in Psychology  
B.S., University of California at Los Angeles  
M.A., Loyola Marymount University, Los Angeles
- \*Robinson, W. Earle .....Instructor in Business  
B.S., Western Michigan University, Kalamazoo, Michigan  
M.B.A., Michigan State University, Lansing, Michigan
- \*Romney, Barbara .....Instructor in Mathematics  
B.A., Pomona College  
M.A.T., Harvard University
- \*Ruggera, Anne .....Instructor in Real Estate
- \*Sanchez, Maria .....Instructor in Spanish  
B.A., M.A., California State University at Los Angeles
- \*Sandell, Stanley, Jr. ....Instructor in Business  
A.A., Glendale Community College  
B.S., M.B.A., University of Southern California  
J.D., Southwestern University

\*Part Time

- Sartoris, James M. . . . .Assistant Professor of Health and Physical Education  
 B.A., University of Washington Head Football Coach  
 M.A., California State University, Los Angeles
- \*Savin, Gerald . . . . .Instructor in Business  
 B.A., Montclair State College  
 B.A., Ambassador College  
 M.A., California State University, Los Angeles
- \*Scarpace, Michael . . . . .Instructor in Health and Physical Education  
 A.B., M.S., University of Southern California
- \*Schiller, Esther . . . . .Instructor in Music  
 B.A., Temple University, Philadelphia, Pennsylvania
- Schneider, Lorraine . . . . .Instructor in Allied Health  
 R.N., Mounds-Midway School of Nursing, Minnesota  
 P.H.N., B.S., M.A., California State University, Los Angeles
- \*Schultheiss, John . . . . .Instructor in Art  
 B.A., John Carroll University, Cleveland, Ohio  
 M.A., University of California at Los Angeles  
 Ph.D., University of Southern California
- \*Schutte, Audrey . . . . .Instructor in Aviation and Transportation
- Schwartz, Paul R. . . . .Counselor  
 A.A., Pasadena City College  
 B.A., M.S., California State University, Los Angeles
- Scott, Robert K. . . . .Instructor in Theater Arts  
 A.B., M.A., California State University, Los Angeles
- \*Seelos, Mary . . . . .Instructor in Business and Spanish  
 B.A., University of California at Berkeley
- Seifert, Ramona L. . . . .Professor of Business  
 A.B., Colorado State College of Education  
 M.A., California State University, Los Angeles
- \*Shane, Judy . . . . .Instructor in English  
 A.A., Glendale Community College  
 B.A., S.T.C., M.A., California State University at Los Angeles
- Shaw, Frances F. . . . .Assistant Professor of Home Arts  
 A.A., Glendale Community College  
 Bachelor of Vocational Education, M.A., California State University, Los Angeles
- Shea, William D. . . . .Associate Professor of Mathematics  
 A.B., Occidental College  
 M.A., California State University, Los Angeles

\*Part Time

- \*Shenfeld, Ruth M. ....Instructor in Psychology  
B.A., M.A., University of California at Berkeley
- Siegel, Roy .....Associate Professor of Engineering  
B.S., University of California at Los Angeles  
M.S.E.E., University of Southern California
- \*Simon, Barnet L. ....Instructor in Art  
B.A., City College of New York  
M.A., Hunter College of New York
- \*Sims, Donald .....Instructor in Economics  
B.S., University of California at Los Angeles  
M.A., University of Southern California
- \*Smith, Donald .....Instructor in Supervision  
A.A., Glendale Community College  
B.A., San Jose State University
- Smith, James M. ....Associate Professor of Anthropology  
B.A., M.A., California State University, Los Angeles
- Smith, J. Walter .....Dean, Student Activities  
B.S., M.S., University of Southern California
- Sprague, Diane L. ....Associate Professor  
A.B., University of Michigan  
M.S., California State University, Los Angeles
- \*Starks, Gloria .....Instructor in Fashion Sketching
- \*Starkweather, Olive .....Instructor in Business  
L.L.B., J.D., Southwestern Law School
- \*Staub, Jerry .....Instructor in Real Estate  
B.A., J.D., University of Southern California
- \*Steele, David .....Instructor in Biology  
B.A., M.A., Drake University, Des Moines  
Ph.D., University of Southern California
- \*Steen, Ronald .....Instructor in Art  
B.A., M.A., California State University at Los Angeles
- \*Steinhardt, Raymond .....Instructor in Real Estate  
M.B.A., California State University
- \*Stevens, Carol .....Instructor in Business
- Stoney, Daisy A. ....Associate Professor of Home Arts  
A.B., M.A., University of California at Los Angeles

\*Part Time

- \*Stormont, Beth .....Instructor in Music  
 B.A., California State University, Long Beach  
 M.A., Occidental College
- Strange, William J. ....Associate Professor, Director of Library Services  
 B.S., M.S., Emporia Kansas State College
- \*Sturges, Clyde .....Instructor in Business  
 B.A., University of Iowa  
 M.A., Colorado State College  
 L.L.B., University of Southern California
- Sweeney, Thomas J. ....Instructor in Applied Science  
 A.A., Glendale Community College
- Tansley, John A. ....Assistant Professor of Health and Physical Education  
 A.A., Chaffey College  
 A.B., California State University, Long Beach  
 M.A., Azusa Pacific College
- \*Tansley, Sharon L. ....Instructor in Home Arts  
 B.S., University of Colorado
- \*Taufe, William Dale .....Assistant Professor of Political Science  
 B.A., M.A., California State University, Los Angeles
- Tennen, Edward F. ....Media Coordinator  
 B.A., California State University, Long Beach  
 M.A., M.S.L.S., University of Southern California
- Thomas, Joseph G. ....Professor of Journalism  
 A.B., M.Ed., University of New Hampshire
- \*Thomas, William L. ....Instructor in Speech  
 B.A., M.A., Occidental College
- Thomsen, Robert E. ....Professor of Art  
 A.B., California College of Arts and Crafts  
 M.A., Stanford University
- \*Thorpe, Thomas E. ....Assistant Professor of Astronomy  
 B.A., M.A., University of California at Los Angeles
- Titchenal, David L. ....Professor of Health and Physical Education  
 A.B., San Jose State University  
 M.A., University of Southern California
- Trupp, S. Kenneth .....Assistant Professor of English  
 B.A., Roanoke College, Virginia  
 M.A., California State University, San Francisco

\*Part Time

- Tucker, Delos R. . . . . Professor of Geology  
 B.S., M.S., Louisiana State University  
 Ph.D., University of Texas
- Tufteland, Jerry M. . . . . Assistant Professor of Business  
 B.A., Augustana College, South Dakota  
 M.A., University of Pittsburgh
- Veltman, Clarence . . . . . Professor of Chemistry  
 A.B., Hope College  
 M.S., Washington University, St. Louis
- \*Viramontes, Maria . . . . . Instructor in Social Science  
 B.A., St. Joseph's College  
 M.A., California State University, Fullerton
- \*Vizuette, Susan L. . . . . Instructor in English  
 A.B., M.A., Occidental College
- \*Vrolyk, Alyce . . . . . Instructor in Philosophy  
 A.B., M.A., University of California at Los Angeles
- \*Walling, Earleen . . . . . Instructor in Home Arts  
 M.A., Pacific Oaks
- Wang, Yeimei . . . . . Instructor in Food Services  
 B.S., Marietta College, Ohio
- \*Ward, Eugene J. . . . . Instructor in Speech  
 B.A., Marshall University  
 M.A., California State University, Los Angeles
- \*Wayne, Gary . . . . . Instructor in Geography  
 B.A., M.A., University of California at Los Angeles
- \*Weaver, Robert . . . . . Instructor in Art  
 B.A., M.F.A., Otis Art Institute
- \*Werner, Robert W. . . . . Instructor in Administration of Justice  
 A.A., El Camino College
- \*Westendorf, Carmen . . . . . Instructor in Spanish  
 B.A., California State University, Los Angeles  
 M.A., University of California at Los Angeles
- Wheelock, Charles C. . . . Dean — Community Services, and Summer Session  
 A.B., Westmont College, Santa Barbara  
 M.A., California State University, Los Angeles  
 Ed.D., University of California at Los Angeles
- \*White, Loyd . . . . . Instructor in Psychology  
 M.A., Pepperdine University

\*Part Time

- Williams, Richard L. . . . . Assistant Professor of Political Science  
B.A., M.A., San Jose State University
- \*Willis, LaVerne . . . . . Instructor in Business  
A.A., Pasadena City College
- \*Wiskup, Leon A. . . . . Assistant Professor of Speech  
B.A., Bates College, Lewiston, Maine  
M.A., Boston University
- \*Wolf, Milton . . . . . Instructor in Business  
B.A., University of Hartford  
M.B.A., Temple University
- \*Wong, David . . . . . Instructor in Business  
B.A., University of California at Los Angeles
- \*Wulke, Gordon . . . . . Instructor in Business  
B.A., Occidental College  
M.B.A., University of California at Los Angeles
- \*Yanover, Robert M. . . . . Instructor in Supervision  
B.S., M.S., California State University, Los Angeles
- \*Young, John T. . . . . Instructor in Economics  
B.A., M.A., University of California, Santa Barbara
- Young, Milton B. . . . . Professor of Music  
B.Mus., University of Redlands  
M.Mus., University of Southern California
- Youngquist, Joel C. . . . . Professor of Economics  
A.B., Occidental College  
M.B.A., Harvard Graduate School of Business Administration
- \*Zajackowski, Frank . . . . . Instructor in English  
B.A., M.A., University of California at Los Angeles
- \*Zemaitaitis, Marie . . . . . Instructor in Mathematics  
B.S., University of Detroit  
M.S., University of Michigan
- \*Zietz, Allen . . . . . Instructor in Business  
A.A., Glendale Community College  
B.A., California State University, Northridge

\*Part Time



**A**

Accounting,  
  see Business; 131  
  curriculum; 53, 65

Accreditation; 11

Activities, student; 29

Address, College; 292

Administration, college; 3

Administration of Justice (Police  
  Science) courses; 104  
  curriculum; 50, 65

Admission Requirements; 32

Adult Education, see Continuing  
  Education; 13  
  Advanced Placement  
  Examination, Credit for; 42  
  Non-Credit; 14

Advanced standing on entry to  
  universities; 19

Advertising Art, courses, 115  
  curriculum; 50

Advisory Committees; 11

Aeronautics, see Aviation and  
  Transportation; 122  
  curriculum; 65

Affirmative Action; 11

Agriculture, curriculum; 66

Air Force ROTC; 12

Airline industry, courses; 122  
  curriculum; 51-52

Algebra, see Mathematics

Allied Health (Vocational  
  Nursing) courses, 108  
  curriculum; 61

American History, courses 171

Anatomy, see Biology 120

Anthropology, courses; 111

Application, admission; 32

Archaeology, see Anthropology 103

Architectural Drafting and Design  
  courses; 112  
  curriculum; 50, 66

Architectural courses; 112

Architectural Engineering,  
  Drafting and Design, courses;  
  112  
  curriculum; 51

Army ROTC; 11

Art, courses, 113  
  curriculum; 51

Associate in Arts Degree,  
  requirements; 47-48

Associate in Science Degree,  
  requirements; 48

Associated Student Body; 29, 38

Astronomy, courses; 119

Athletic program; 29

Attendance and punctuality; 45

Automatic Sprinkler and Fire  
  Control, courses; 120

Aviation and Transportation,  
  courses; 122  
  curriculum; 51

Mechanic curriculum; 52  
  "A" and "P" Licenses; 52  
  Pilot Training, curriculum; 52

Awards, see Scholarships

**B**

Band, see Music

Banking, see Business 151  
  curriculum; 53

Biology, courses, 129  
  curriculum; 67

Board of Education; 3

Bookkeeping, see Business  
  105-106  
  curriculum; 54

Botany, see Biology 137

Business Administration,  
  curriculum; 67

Business courses; 131  
  curriculum; 53  
  general; 55  
  secretary; 57  
  machines; 133, 139  
  mathematics; 133

**C**

Calculus, see Mathematics 103,  
  104, 105

Calendar; 5

California State University and  
  Colleges; 259

California Western Campus; 256

Campus Center; 21  
  Speakers; 30

Carpentry, courses; 141

Ceramics, see Art

Certificate Programs; 49, 50

Certified Public Accountant,  
  curriculum; 68

Chemistry, courses; 141  
  curriculum; 69

Child study, see Family and Consumer  
  Studies

Children's Centers, curriculum;  
  61

Chiropractic, Los Angeles,  
  College of; 69

City and Regional Planning; 67

Claremont Men's College; 248

Clerical, curriculum; 54

Clothing, see Home Arts

Clubs; 29

College Calendar, of events; 5

College Level Examinations; 43

Colloquia, course; 103

Community Services; 10

Computer Programming; 133

Computer Science, curriculum; 70

Conduct, General; 44

Continuing Education; 13

Constitution, U.S., requirement  
  for graduation; 47

Cooperative Education; 20  
  courses; 142

Cosmetology, courses; 143  
  curriculum; 58

Costs; 38

Counseling services; 9, 36

Course Descriptions; 103

Courses, eligibility for; 37

Credit by Examination; 42

Credit for Advanced Placement,  
  Examinations; 42

Credit for Military Training; 42

Credit-No Credit Courses; 14, 43

Criminal Justice, curriculum; 70

Criminology, see Administration of  
  Justice

Curriculums, suggested; 49

**D**

Data Processing — Business  
  courses; 133  
  curriculum; 54

Degree, Associate in Arts; 47

Degree, Associate in Science; 48

Dental Hygienist, curriculum; 71

Dental Materials, see Art 151

Dentistry, curriculum; 72

Descriptive Geometry, see  
  Architecture 103, see  
  Engineering 103

Development Studies; 103

Dietetics, curriculum; 73

Dismissal; 40

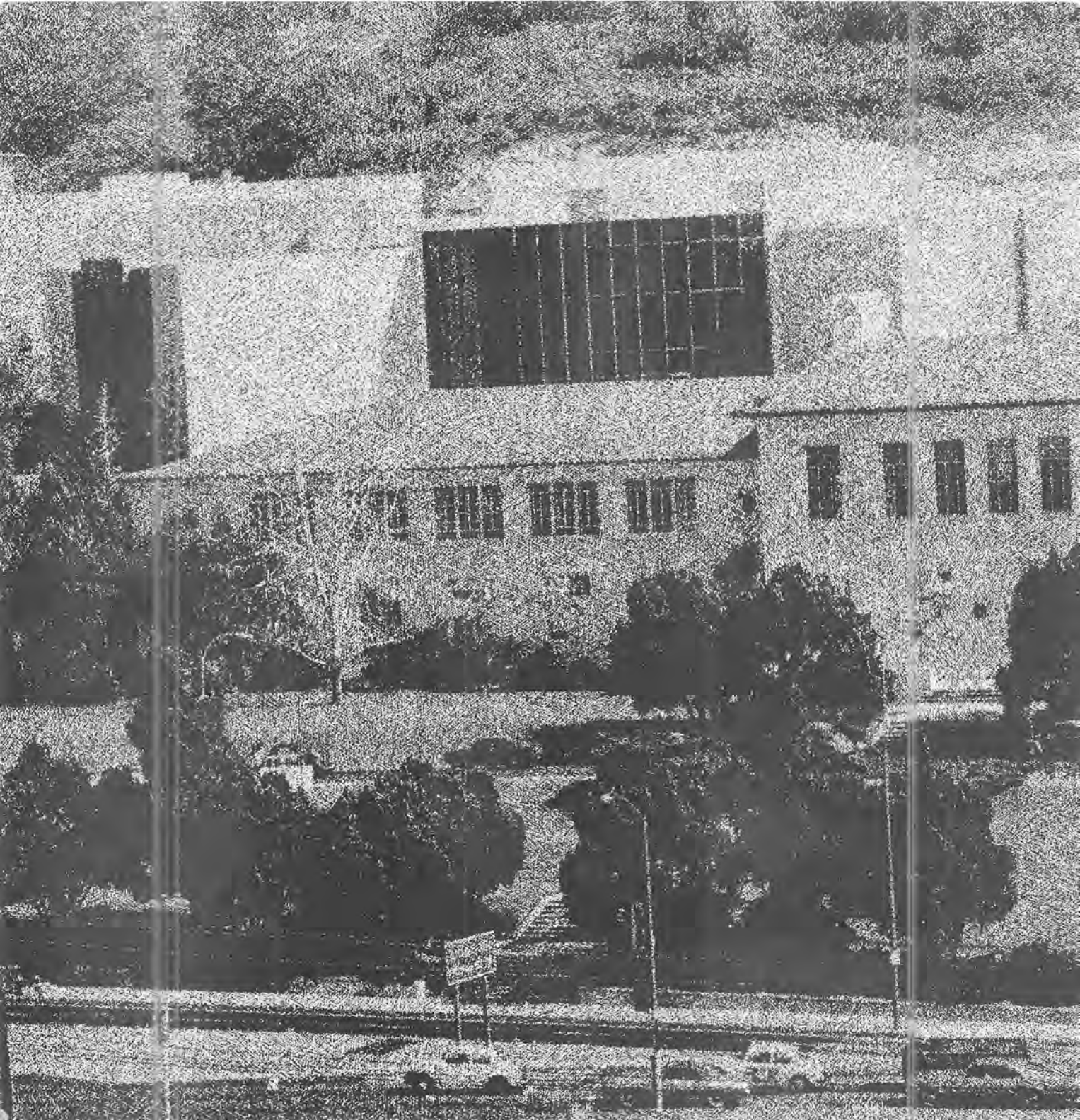
Distributive Education; 55

Drafting courses; 146

Draftsman, curriculum; 58

Drama and Radio Production,  
  see Theater Arts





Dropping courses, see  
Withdrawal

**E**

Earth Science, curriculum; 73  
Economics, course; 147  
curriculum; 73  
Educational Opportunity, Grant;  
21  
Electronics, courses; 148  
Electronics Technician,  
curriculum; 59  
Eligibility for Courses; 37  
Elliott Campus; 256  
Emergency Medical Technology,  
course; 150  
Employment; 21  
Engineer — Junior curriculum;  
59  
Engineering, courses; 151  
curriculum; 74, 79  
English, courses; 152  
requirement for graduation; 47  
Entrance requirements; 32  
Examination, credit by; 42  
final; 46  
pre-registration, see College  
Calendar; 5-7  
Executive secretary, curriculum;  
57  
Extended Day, see Continuing  
Education; 13

**F**

Faculty; 262  
Family and Consumer Studies; 155  
Fashion design, see Home Arts  
curriculum; 59  
Fees, Student Body; 38  
Field Biology, see Biology 130  
Final Examinations; 46  
Fire Control, courses; 126  
Fire Science, courses; 157  
First Aid, course, see Health 101  
requirement for graduation; 47  
Flight Attendant, see Aviation  
and Transportation 129  
Flight Training, course; 122  
curriculum; 52  
Food and Nutrition, curriculum;  
80  
Food Service, courses; 159  
curriculum; 60  
Food Service Management,  
courses; 161  
curriculum; 60

Foreign Language, courses; 161, 164,  
176, 214, 217  
curriculum; 80  
Foreign Study; 103  
Forestry and conservation,  
curriculum; 80  
French, courses; 161

**G**

G.E.D. Testing; 15  
General Information; 8  
Geography courses; 163  
curriculum; 81  
Geology, courses; 163  
curriculum; 81  
Geometry, courses; 112, 151, 183  
Geophysics, curriculum; 82  
German, courses; 164  
Glendale Community College; 2  
Grade Points; 40  
Grades; 40  
incomplete; 40  
repetition; 41  
requirements for graduation;  
47  
Graduation, requirements for;  
47, 226  
Graphics, 165  
Group Counseling; 36  
Guidance; 36  
courses; 167

**H**

Handicapped Students; 15  
Hazing; 29  
Health Education courses; 168  
Health Center; 21  
History, courses; 169  
curriculum; 82  
requirements for graduation  
47  
Holidays; 5  
Home Arts, courses; 173  
Honors; 30  
Honor Societies; 30  
Housing; 22  
Human Services; 82  
Human Services Aide; 60  
Hygiene, requirement for  
graduation; 47

**I**

Independent Study; 176  
Industrial Arts, curriculum; 82  
Industrial Technology,  
curriculum; 83

Information, general; 8  
Espanol; 16  
Instrumental Music, courses; 189  
Insurance, see Business 149  
curriculum; 56  
Interior Design, see Art 130  
International Field Study, course;  
103  
International Students; 17  
Investments, see Business 153  
Italian, courses; 176

**J**

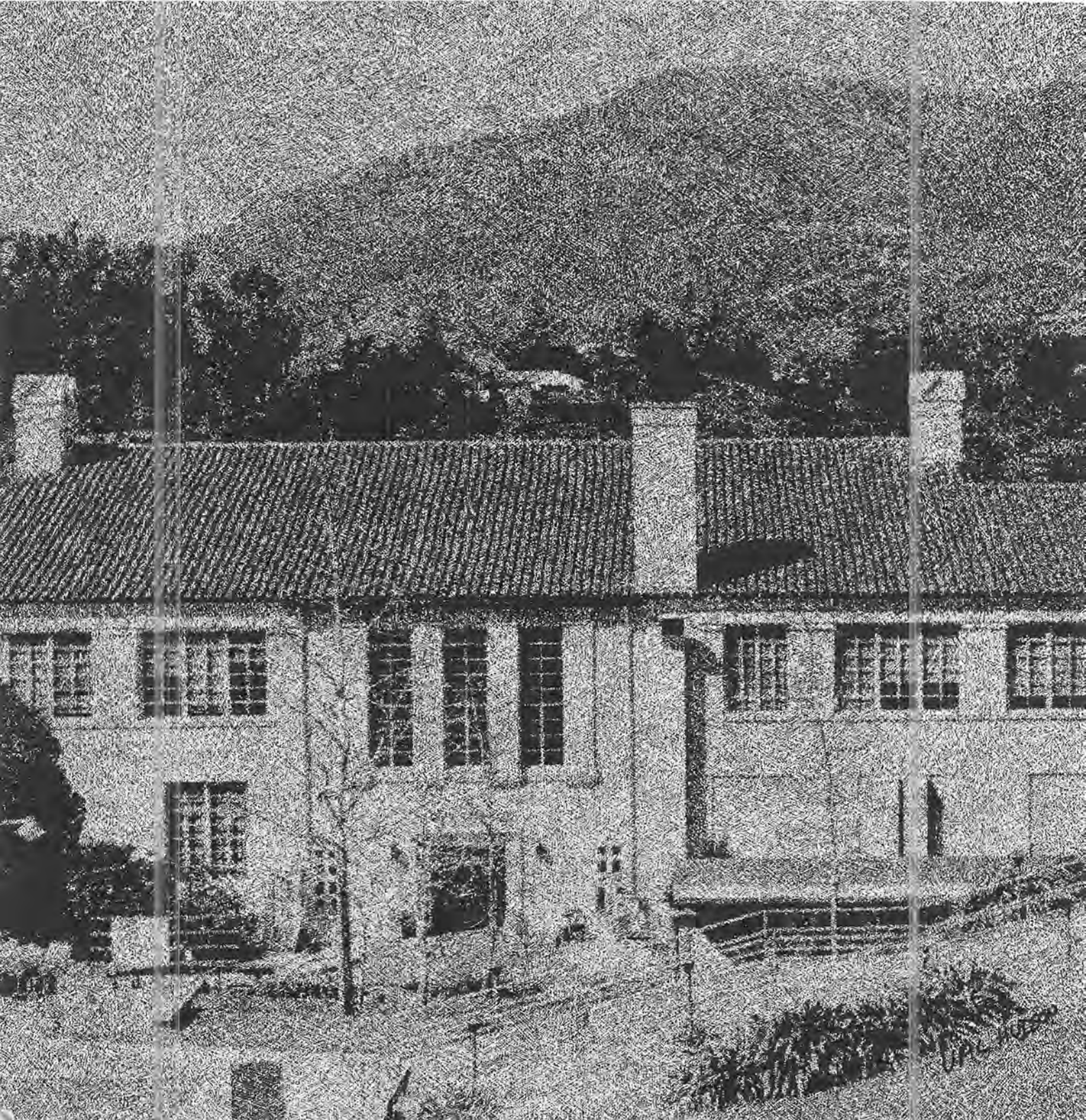
Jewelry, see Art; 118  
Job Placement, see Employment  
Journalism, courses; 177  
curriculum; 60  
Junior standing in 4-year college,  
requirement for; 19

**L**

Landscape Architecture,  
curriculum; 67  
Law, see Administration of  
Justice, criminal; 104  
curriculum; 85  
Law Enforcement and  
Administration; see  
Administration of Justice; 65  
Leadership class; 214  
Learning Resource Center; 36  
Leave of absence; 45  
Legal Secretary, curriculum; 57  
Lettering, see Art 132  
Liberal Studies, curriculum; 87  
Librarianship, curriculum; 88  
Library; 18  
Library Assistant, curriculum; 60  
Library Technician; 178  
Literature, see English  
Loans; 22  
Location of College; 291  
Loma Linda University; 73  
Lower division, general  
requirements; 19  
Loyola University of Los  
Angeles; 248

**M**

Machine Shop, courses; 178  
Machinist, curriculum; 63  
Management, curriculum; 89  
Manufacturing Technology; 61  
Marketing, see Business 171  
Marriage, see Psychology 131





Materials and Processes, course;  
181

Mathematics, courses; 181  
business; 132  
curriculum; 90  
proficiency examination; 33  
requirements for graduation;  
47

Matriculated Student; 32

Medical Assistant, 56  
(Administrative); 139

Medical Secretary, course; 139  
curriculum; 58

Medical Technologist,  
curriculum; 90

Medicine, curriculum; 90

Loma Linda University; 92

Stanford University; 91

University of California, Davis;  
91

University of California, Irvine,  
California College of Medicine; 91

University of California, San  
Francisco; 92

University of Southern  
California; 92

Merchandising, see Business 173

Metals, course; 184

Meteorology, see Aviation and  
Transportation 122

Microbiology, see Biology 112

Mineralogy, courses; 184

Mount St. Mary's College; 250

Multi-Media, course; 186

Music, courses; 186

## N

National Field Study, course; 103

Natural Resources, school of  
curriculum; 92

Navigation, see Aviation and  
Transportation 121

New Horizons; 19

Non-Matriculated Student; 32

Northrop University; 251

Nursery School, see Family  
and Consumer Studies  
curriculum; 61

Nursing — (R.N.), curriculum;  
92

Nursing, Vocational  
see Allied Health

Nutrition, see Home Arts 125  
curriculum; 80

## O

Objective and Functions; 8

Obligations, clearance; 46

Occidental College; 251

Oceanography, course; 193  
curriculum; 94

Office orientation, see Business  
231

Optometric Technician,  
curriculum; 95

Optometry, curriculum; 94

Orchestra, see Music 151

Organ, see Music 166

Organization roster; 31

Organizations, student; 29

Orientation of new students; 30

## P

Pacific Oaks College; 100, 253

Painting, see Art

Paleontology, course; 193

Pepperdine University Los  
Angeles; 254

Seayer College (Malibu); 255

Personal Development; 176

Perspective Graphics, see  
Architecture 105

Petitions; 46

Change of Program; 45

Honorable Dismissal; 45

Pharmacy, curriculum; 95

Philosophy, courses; 193

Philosophy of the College; 8

Photography, courses; 194  
curriculum; 62

Physical Education, course; 197  
curriculum; 46

exemption; 46

requirement for graduation; 47

teacher, curriculum; 95

Physical Science, course; 205

Physical Therapy, curriculum;  
96

Physics, courses; 206

curriculum; 96

Physiology, see Biology 121

Piano, see Music

Pilot Training, courses; 122  
curriculum; 52

Podiatry, curriculum; 97

Police Science, see

Administration of Justice

Political Science, courses; 207  
curriculum; 97

requirement for graduation; 47

Pre-dental, curriculum; 72

Pre-registration Examinations; 33

Pre-school child, see Family and  
Consumer Studies

President; 3

Printing, courses; 209

Probation, academic; 40  
general; 43

Programs and Services; 9

Psychobiology, curriculum; 97

Psychology, courses; 211  
curriculum; 98

Public Administration courses;  
212

Public Health, curriculum; 98

Public Health, School of; 98

## R

Reading, course; 153

Real Estate, courses; 212  
curriculum; 56

Recreation; 30

Recreational Leadership, courses;  
214

curriculum; 62

Registration, dates; 5

procedure; 37

Religions, see Philosophy

Residence requirements; 34

Russian; 214

## S

Salesmanship, see Business 175

Scholarship standards; 39

academic probation; 40

Scholarship and aid funds; 21

Scholarship information and  
regulations; 39

Science, General, see Physical  
Science 131

Sculpture, see Art 140

Secretarial training, courses; 138  
curriculum; 57

Shakespeare, see English 125

Shorthand, see Business

Silk Screen Printing, see Art  
144-145

Slide rule, see Engineering 142

Social Science, courses; 214

Sociology, courses; 216

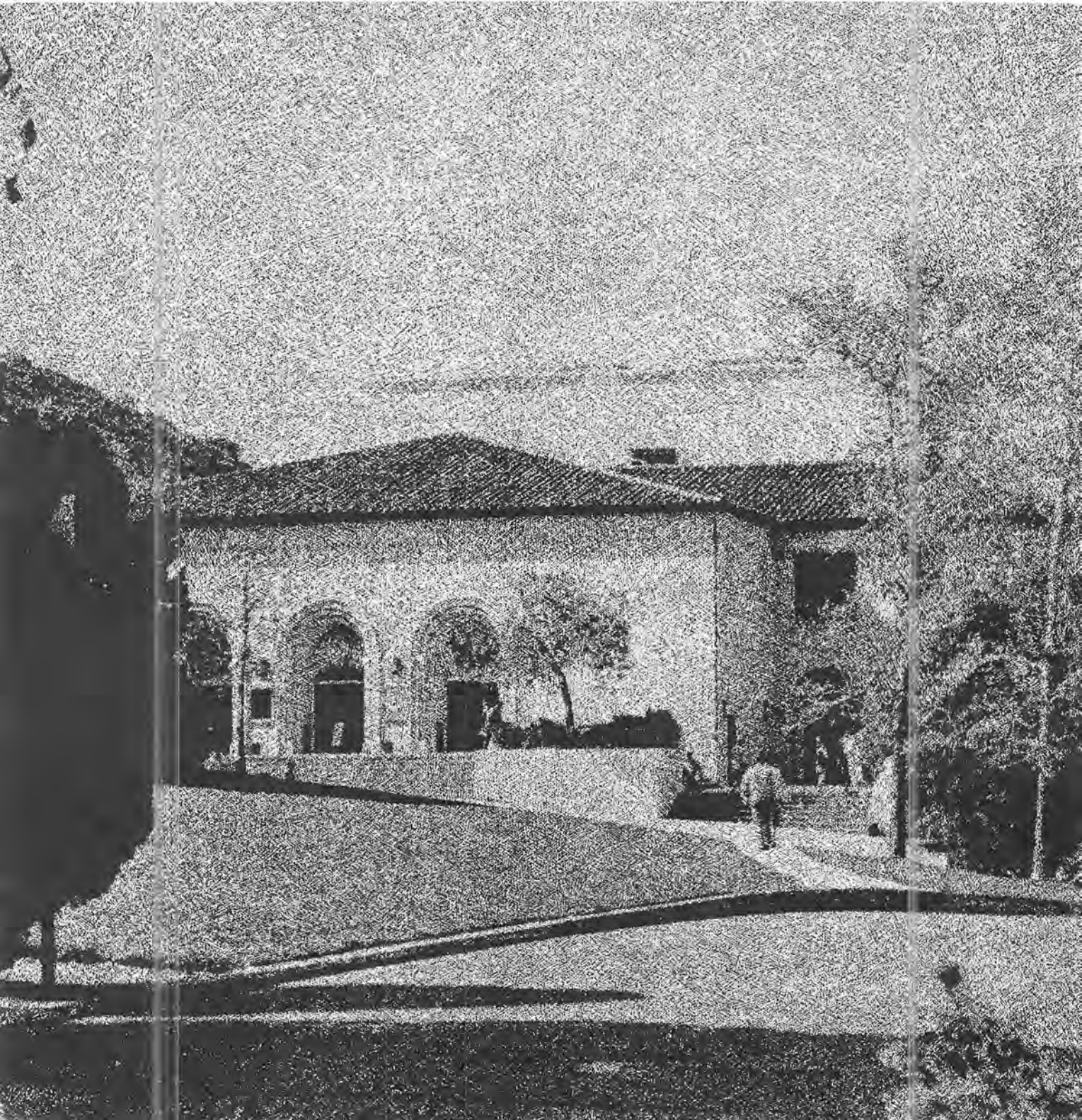
Spanish, courses; 217

Speakers, Campus; 30

Speech, courses; 219  
curriculum; 99

Stagecraft, see Theater Arts; 221

Stanford University; 255



State University and Colleges; 259  
 Student Government and  
   Activities; 29  
   associated; 38  
   health; 21  
   leadership; 216  
 Student Services; 17  
 Summer Term; 15  
 Superintendent; 3  
 Supervision, see Management  
   curriculum; 58  
 Supplemental Educational  
   opportunity grant; 21

**T**

Table of contents; 4  
 Teacher Aid; 62  
 Teaching, requirements for; 99  
 Teaching Nursery School; 100  
 Technical Education (Graphics)  
   courses; 219  
   curriculum; 63  
 Technical Machine Shop; 63  
 Television, see Electronics  
   technician; 64  
 Television Courses; 103  
 Television Repair, courses; 221  
   curriculum; 64  
 Temporary Leave of Absence; 45  
 Test of English as a Foreign  
   Language (TOEFL); 33  
 Tests, Counseling; 36  
   pre-registration; 5-7, 32  
 Theater Arts, courses; 221  
   curriculum; 64  
 Title IX; 19

Transcripts; 33  
   forwarding of; 46  
 Transfer programs; 49, 65  
 Transfer, colleges; 19, 226  
 Transfer Students, Program for;  
   19, 226  
 Trigonometry, see Mathematics  
   102  
 Tuition; 34, 38  
 Typing, see Business

**U**

United States International  
   University, San Diego; 256  
 Units, definition; 39  
   Limitations; 39  
   requirements for graduation; 47  
 University of California Berkeley;  
   228  
   lower division requirements —  
     business administration; 67  
     College of Letters and Science;  
     228  
 University of California Davis;  
   229  
 University of California Irvine;  
   230  
 University of California, L.A.  
   accounting; 65  
   admission; 232  
   business administration; 67  
   College of Fine Arts; 232  
   Dentistry; 72  
   College of Letters and Science;  
   234  
 University of California,  
   Riverside  
   College of Letters and Science;  
   237

University of California, San  
 Diego, Muir College; 241  
 Revelle College; 242  
 Third College; 243  
 Fourth College; 243  
 University of California, Santa  
 Barbara, College of Letters and  
 Science; 244  
 University of California, Santa  
 Cruz; 245  
 University of Southern California  
   Business, School of; 68  
   Dentistry; 72  
   Lower division requirements —  
     College of Letters, Arts and  
     Science; 256

**V**

Veterans, education; 19 military  
   training credit; 42  
 Veterinary Medicine; curriculum;  
   101  
 Vocal music, see Music  
 Vocational Nursing, see Allied  
   Health curriculum; 61

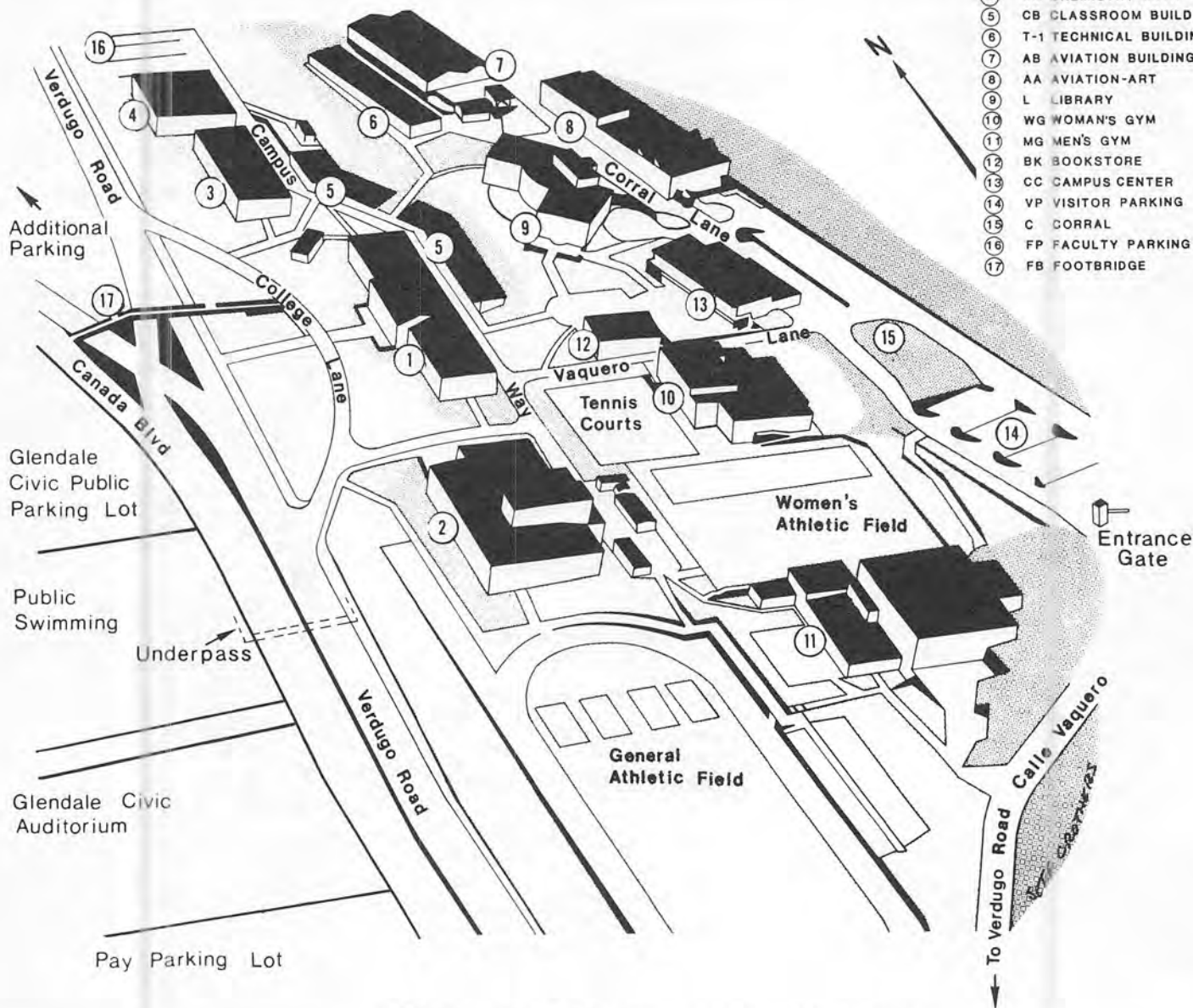
**W**

Welding, occupational; 64  
   courses; 224  
 Whittier College; 258  
 Withdrawal from class; 45  
   from college; 45  
 Work Experience, see  
   Cooperative Education

**Y**

Yoga, Physical Education 205

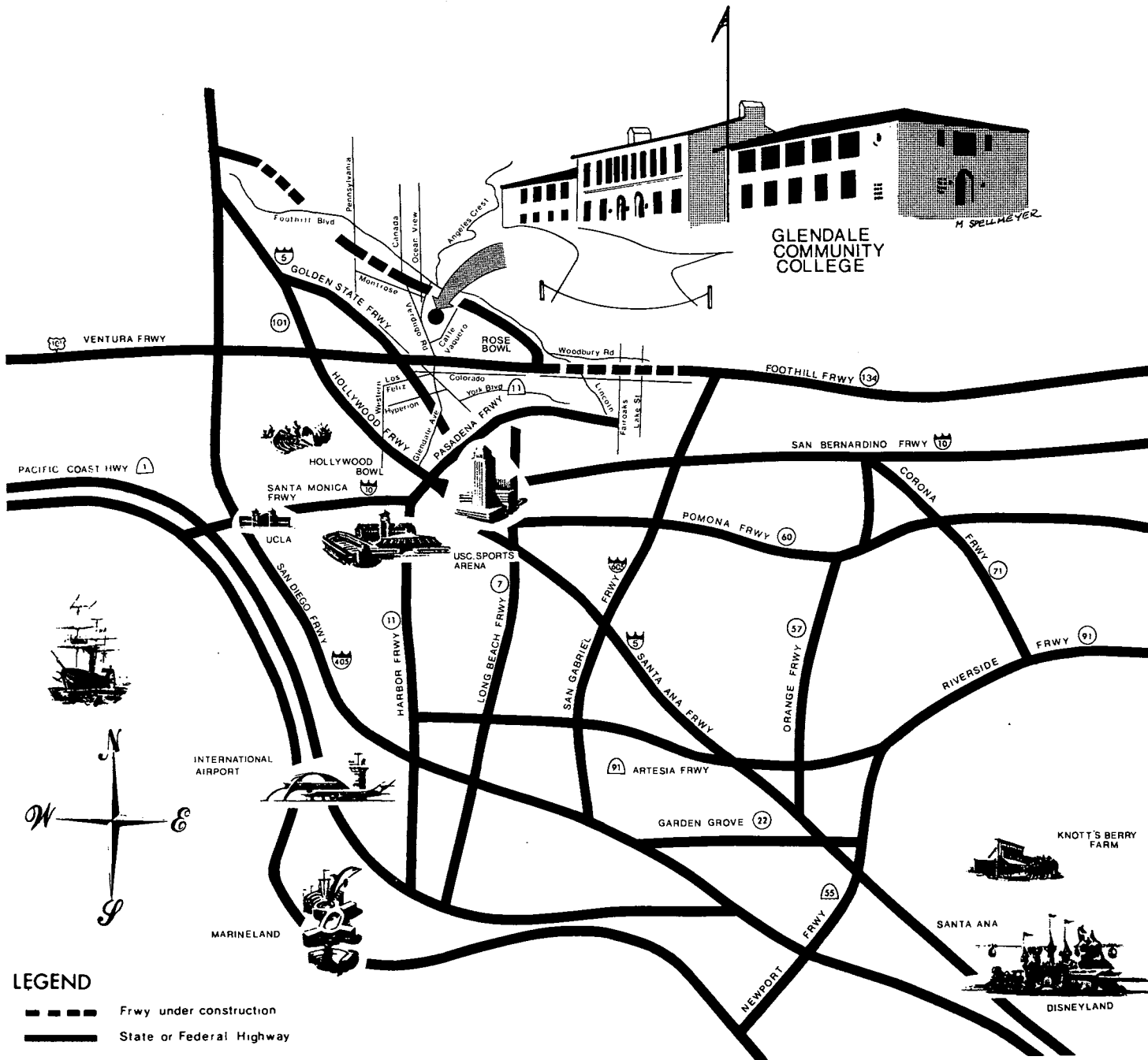
- ① AD ADMINISTRATION
- ② AU AUDITORIUM
- ③ PB PHYSICS-BIOLOGY
- ④ CM CHEMISTRY-MATH
- ⑤ CB CLASSROOM BUILDING
- ⑥ T-1 TECHNICAL BUILDING
- ⑦ AB AVIATION BUILDING
- ⑧ AA AVIATION-ART
- ⑨ L LIBRARY
- ⑩ WG WOMAN'S GYM
- ⑪ MG MEN'S GYM
- ⑫ BK BOOKSTORE
- ⑬ CC CAMPUS CENTER
- ⑭ VP VISITOR PARKING
- ⑮ C CORRAL
- ⑯ FP FACULTY PARKING
- ⑰ FB FOOTBRIDGE



# Glendale Community College

1500 North Verdugo Road

Glendale, California 91208, (213) 240-1000





#1 -ALLIED HEALTH - 205 - PHARMACOLOGY

*Prerequisite:* Allied Health 103 or equivalent.

Allied Health 205 embraces the knowledge of the source, physical and chemical properties, compounding, physiological actions, absorption, fate and excretion, the therapeutic uses of drugs. The course is designed to update pharmaceutical information for all nursing personnel. Allied Health 205 is a state-approved course for continuing education.

Lecture 3 hours

---

#2 201 - FREEHAND SKETCHING I 1 UNIT  
DRAWING FUNDAMENTALS - TV only

*Prerequisite:* None

Freehand Sketching I is designed expressly for beginners and promises that virtually anyone who can master a few simple, basic principles and techniques can learn to draw regardless of talent or experience. The student need only have an interest in learning to draw and sufficient motor control and maturity to draw along with the instructor. As the course progresses the student is guided step by step through graduated levels of skill.

A television series of thirty half-hour television programs.

---

*1500 North Verdugo Road Glendale, California 91208*