ON THE COVER: String painting design by John Banner ...catalog illustrations by Alanna Nicolaisen and Mark Taubold. Photography by Skip DeYoung. Graphic Art Direction by Sam Anslyn.
Glendale College

Glendale College is a public junior college and a member institution of the Glendale Unified School District. The Board of Education which controls the college also controls twenty-two elementary schools, five junior high schools, three senior high schools and an adult education center.

Glendale 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.

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 College has a day enrollment of about 3000 and an extended day enrollment of over 3000, of which approximately 850 attend both day and extended day. In addition the college administers an adult education program of 2800 students.
Board of Education

Sheldon S. Baker
1965 - 1969

Donald E. Butler
1967 - 1971

George Howenstein
1967 - 1971

Scott T. MacDonald
1965 - 1969

Mrs. Donald R. Williams
1965 - 1969

School District Administration

Burris E. Taylor . . . . . . . . . . . . . Superintendent
Wayland Parsons . . . . . . . . . . . . . Deputy Superintendent
Miss Mildred E. Hall . Assistant Superintendent (Educational Services)
M. A. Hesse . . . . . . . . . . . . . Business Manager

Glendale College Administration

John T. McCuen . . . . . . . . . . . . . President
John S. Kreider . . . . . . . Administrative Dean - Instruction
Elsie T. Bishop . . . . . . . Administrative Dean - Student Personnel
David C. Leek . . . . . . . Administrative Dean - Extended Day
Harold B. Cochran . . . . . Dean - Guidance and Counseling
Carl E. McConnell . . . . . Dean - Admissions and Records
J. Walter Smith . . . . . . . Dean - Student Activities
Harry L. Beck . . . . . . . Assistant Dean - Extended Day
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College Calendar 1968-1969

1968

May 24  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Mathematics Proficiency Examination, 8:30 a.m.
ACE Psychological Examination, 8:30 a.m.
English Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 2:00 p.m.

May 30  Memorial Day (Legal Holiday)

June 1  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Mathematics Proficiency Examination, 8:30 a.m.
ACE Psychological Examination, 8:30 a.m.
English Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 10:30 a.m.

June 7  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Mathematics Proficiency Examination, 8:30 a.m.
ACE Psychological Examination, 8:30 a.m.
English Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 2:00 p.m.

June 11  Chemistry 1 Placement Examination, 11:00 a.m.

June 24  Summer Session Begins
Chemistry Aptitude Test, 8:00 a.m.
Chemistry Aptitude Test, 2:00 p.m.
Chemistry 1 Placement Examination, 2:00 p.m.

June 28  PRE-REGISTRATION EXAMINATIONS, 1:00 p.m. - 5:00 p.m.*
Mathematics Proficiency Examination, 1:00 p.m.
ACE Psychological Examination, 1:00 p.m.
English Placement Examination, 2:30 p.m.

July 4  Legal Holiday

July 24  Chemistry 1 Placement Examination, 2:00 p.m.

August 2  Summer Session Ends

Aug. 19 - Sept. 13  REGISTRATION - SEMESTER I

August 26  PRE-REGISTRATION EXAMINATIONS, 9:00 a.m. - 1:00 p.m.*

August 27  Chemistry 1 Placement Examination, 8:30 a.m.

August 30  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Mathematics Proficiency Examination, 8:30 a.m.
ACE Psychological Examination, 8:30 a.m.
English Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 2:00 p.m.

September 2  Labor Day

September 6  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Mathematics Proficiency Examination, 8:30 a.m.
ACE Psychological Examination, 8:30 a.m.
English Placement Examination, 10:00 a.m.
Chemistry 1 Placement Examination, 2:00 p.m.

September 9  Admission Day

September 11  Chemistry 1 Placement Examination, 2:00 p.m.
Admission applications must be on file in the Office of Admissions and Records for Semester I.

*All Pre-registration Examinations will be held in the Auditorium Building unless otherwise noted.
September 13  Vaqueritos Day (all new students are expected to attend 9:30 a.m. to 12 noon)
September 16  Class Instruction begins for Semester I.  Chemistry Aptitude Test, Chemistry 41 Class  Chemistry Aptitude Test, Chemistry 10 Class
September 17  Chemistry 1 Placement Examination, 11:00 a.m.
October 1, 3  Group Guidance Meetings, 11:00 a.m. (all new students are expected to attend)
October 4  Last day to drop eight weeks classes without possible penalty.
October 25  Last day to drop a semester class without possible penalty (see catalog statement on Withdrawal from Class or College).  All students withdrawing from eight weeks classes after this date will receive WF grades.
November 8  Mid-Semester Deficiency Notices
November 11  Veterans’ Day
November 26  Group Guidance Meetings, 11:00 a.m.
November 28, 29  Thanksgiving Vacation
December 6  All students withdrawing from a semester class or college after this date will receive WF grades (see catalog statement on Withdrawal from Class or College).  Last day to drop eight weeks classes without possible penalty.
December 27  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
  Mathematics Proficiency Examination, 8:30 a.m.
  ACE Psychological Examination, 8:30 a.m.
  English Placement Examination, 10:00 a.m.
  Chemistry 1 Placement Examination, 2:00 p.m.

1969

January 1  Holiday
January 3  Chemistry 1 Placement Examination, 8:30 a.m.
January 4  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
  Mathematics Proficiency Examination, 8:30 a.m.
  ACE Psychological Examination, 8:30 a.m.
  English Placement Examination, 10:00 a.m.
January 10  All students withdrawing from eight weeks classes after this date will receive WF grades.
January 13 - 30  Registration — Semester II
January 14  Chemistry 1 Placement Examination, 11:00 a.m.
January 17  Last Day of Class Instruction for Semester I
January 20  Final Examinations begin for Semester I
January 21  Chemistry 1 Placement Examination, 11:00 a.m.
January 27  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
  Mathematics Proficiency Examination, 8:30 a.m.
  ACE Psychological Examination, 8:30 a.m.
  English Placement Examination, 10:00 a.m.
  Chemistry 1 Placement Examination, 2:00 p.m.

*All Pre-registration Examinations will be held in the Auditorium Building unless otherwise noted.
January 29  Admission applications for Semester II must be on file in the Office of Admissions and Records.
January 31  End of Semester I
February 3  Class Instruction begins for Semester II.
             Chemistry Aptitude Test, Chemistry 41 Class
             Chemistry Aptitude Test, Chemistry 10 Class
February 4  Chemistry 1 Placement Examination, 11:00 a.m.
February 11 Group Guidance Meetings, 11:00 a.m. (all new students are expected to attend)
February 12  Lincoln's Birthday (Legal Holiday)
February 21  Last day to drop eight weeks classes without possible penalty.
February 22  Washington's Birthday (Legal Holiday)
March 14  Last day to drop a semester class without possible penalty (see Catalog statement on Withdrawal from Class or College). All students withdrawing from eight weeks classes after this date will receive WF grades.
March 28  Mid-Semester Deficiency Notices.
March 31 - April 4  Easter Vacation
April 17  Group Guidance Meetings, 11:00 a.m.
May 2  All students withdrawing from a semester class or college after this date will receive WF grades (see Catalog statement on Withdrawal from Class or College). Last day to drop eight weeks classes without possible penalty.
May 23  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
             Mathematics Proficiency Examination, 8:30 a.m.
             ACE Psychological Examination, 8:30 a.m.
             English Placement Examination, 10:00 a.m.
             Chemistry 1 Placement Examination, 2:00 p.m.
             All students withdrawing from eight weeks classes after this date will receive WF grades.
May 30  Memorial Day (Legal Holiday)
June 6  Last Day of Class Instruction for Semester II
June 7  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
             Mathematics Proficiency Examination, 8:30 a.m.
             ACE Psychological Examination, 8:30 a.m.
             English Placement Examination, 10:00 a.m.
June 9  Final Examinations begin for Semester II
June 13  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
             Mathematics Proficiency Examination, 8:30 a.m.
             ACE Psychological Examination, 8:30 a.m.
             English Placement Examination, 10:00 a.m.
             Chemistry 1 Placement Examination, 2:00 p.m.
June 15  Baccalaureate and Commencement Exercises
June 17  Chemistry 1 Placement Examination, 11:00 a.m.
June 20  End of Semester II

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

EDUCATIONAL PHILOSOPHY. Glendale College, as a public community college, is concerned with its students' growth as individuals and as responsible citizens in a democratic society. Comprehensive in scope, it offers educational opportunities to all who can significantly profit from them. These opportunities, both general and specialized, are designed to help each student in the developing of his own potential. Its educational pattern derives from the conviction that every individual is worthwhile and that as a citizen, worker and family member, he merits those experiences which will inform him and imbue him with responsibility; which will stimulate and augment his intellectual curiosity, creativity and appreciations; which will encourage him to explore his cultural heritage and to commit himself to a personal system of moral and spiritual values. This philosophy is basic to the development of the Glendale College curriculum and guides the determination of its specific requirements and of its diversified electives.

Specific Objectives. The educational offerings of Glendale College, including the Extended Day and Adult Education Division, intended to fulfill the stated purposes, may be grouped into nine categories, which are not to be considered mutually exclusive:

Guidance and Counseling. A guidance and counseling program offers assistance to students in becoming personally and socially integrated, self-sufficient, and vocationally competent. To this end counselors encourage students to make thoughtful independent decisions in achieving their educational and vocational objectives, including consideration for transfer, the Associate in Arts degree, and specialized training.

Education beyond the high school level for vocational competence. Programs of varying lengths provide training in a number of occupational fields in business and industry, these include research and development, manufacturing, maintenance, operation, and construction. Courses offered in these programs serve three groups of workers: Those in training for entry-level positions, those preparing for advancement, and those seeking retraining when old job requirements are replaced by new ones. The college recommends for these students a balance of technical and general education.

Education for meeting the lower division requirements of a university or a four-year college in a student's particular field. The College offers courses which are equivalent to those available in the freshman and sophomore years at The University of California and other colleges and universities in the United States. A student with a satisfactory high school and junior college record will receive full credit for all college and university type work done in Glendale College provided he has met the specific requirements of the college or university to which he transfers.
Remedial education. A student unable to enter a university or four-year college because of grade or subject deficiencies in his high school record has an opportunity to make up such deficiencies and enter upon a program leading to upper division standing at a four-year institution.

Refresher education. Any member of the community finding it necessary to review certain academic material studied in past years will have the opportunity to refresh as well as to up-date his knowledge in any of the classes offered at Glendale College.

Extended Day and Adult Education. Persons unable to attend regular day classes can enroll in Extended Day (late afternoon or evening) college credit courses leading to the Associate in Arts Degree and Certificates of Completion in such fields as Supervisory Training, Real Estate, Carpentry Apprenticeship and Sheetmetal Apprentice-ship. The College offers specialized courses in Peace Officer Training, Fire Science Training, Machine Shop Practice and Electronics for those desiring to up-grade themselves in their employment. General business education and cultural courses aim at meeting the needs of those desiring personal improvement or satisfaction of intellectual curiosity. A variety of non-credit classes, short-term classes, lecture series and workshops, 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.

General education for all members of the community. Both mature and younger citizens of the community will find wide and varied curriculums designed to promote the following objectives:

a. Further development in such study skills as reading, writing, speaking, listening, computing, and organizing information

b. Knowledge of the cultural heritage and the accumulated record of the wisdom of mankind

c. Training in critical thinking as exemplified in drawing sound conclusions from premises, making relevant judgments, and discriminating among values

d. Appreciation for aesthetic expression through learning about creative arts

e. Foundation in knowledge, attitudes, and skills necessary for vocational success

f. Cultivation of habits which are essential to physical and mental health

g. Growth in the understanding of values, critically interpreted, as a basis for personal integrity and commitment

h. Appreciation for the quality of excellence as a major value

i. Additional preparation for family and citizenship responsibilities
ACCREDITATION. In October of 1966 Glendale College received another maximum accreditation for a five-year period by the Western Association of Schools and Colleges. The University of California and other colleges and universities of high rank give full credit for appropriate courses completed at Glendale College.

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.

CREDIT FOR MILITARY TRAINING. Glendale 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 College before credit for military service can be granted. Credit earned for military training will count toward satisfying requirements for the Associate in Arts Degree.

EXTENDED DAY. Late afternoon and evening college credit classes are provided by the Extended Day Division of Glendale 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 apprenticeship, fire science, police science, supervisory training, real estate, and trade extension. The regular facilities of the College, including the library, bookstore, auditorium, laboratories, and shops are available to Extended Day classes. Attendance, registration and withdrawal rules, scholarship standards, and requirements for graduation with the Associate in Arts Degree are the same as for the day college.

A modern program of adult education also provides educational opportunities for those seeking personal and occupational improvements. Adult non-credit courses include business and distributive education, clothing, craft and graphic arts, engineering and technology, English, foreign languages, 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.

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 the Glendale City Schools. Business, professional, and industrial persons of the community who have obtained adequate 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 Extended Day Division on certain evenings. Counseling appointments may be arranged by telephone, 242-6861, extension 11.
Any adult who complies with established registration procedures may enroll in Extended Day classes. Placement Examinations are required for enrollment in certain courses in electronics, 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 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. (There is also a tuition fee charge to students taking adult non-credit classes.)

SUMMER TERM. The summer term will begin June 24, 1968 and end August 2, 1968. Students enrolling for work may complete four to six units of college credit during the six weeks. Courses will be offered in all fields in which there is sufficient demand. Summer term circulars may be requested by telephone. (242-6861)

TRANSFERS TO FOUR-YEAR COLLEGES AND UNIVERSITIES. A student may take a program at Glendale 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 and universities 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 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 also programs for Transfer Students in this Catalog, page 169.

2. In addition, it is advisable for him 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 College. Returned servicemen are helped and encouraged to secure the training necessary to realize their vocational aims. In order that this may be achieved, Glendale College cooperates with the Veterans Administration and with the California Department of Veterans Affairs.

* See page 169, this Catalog.
Student Services

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 together for social and business functions. Arrangements for the use of these rooms must be made in the Office of the Dean of Student Personnel, Administration Building, Room 104. A lounge, dining room, and snack bar are housed here.

The Patrons Club, civic groups, and other friends of the College may use the Campus Center for their business meetings and social affairs. Arrangements for such use must be made through the Business Office at the Board of Education.
COMMUNITY SERVICES. Faculty and students provide a comprehensive program of cultural activities, recreation, and non-credit education courses to individuals and groups of the Glendale Community.

EMPLOYMENT. The college maintains an employment service to assist students and graduates in securing part-time and full-time employment. Applications should be made in person at the Employment Office in the Men's Gymnasium.

Referrals for placement are made on the basis of the student's experience, training, and where desirable, approval of faculty members.

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.

HEALTH CENTER. The Glendale Unified School District provides facilities for health appraisal of new students enrolled in physical education, by means of health questionnaires and a limited number of physical examinations.

Students having special health problems are referred to the nurse by any member of the Certificated College Staff. The necessary medical evaluation is obtained, and assistance in meeting school-related medical problems is offered.

Health counseling, health information and first aid are available to students and faculty during office hours at the Student Health Center.

A registered public health nurse is assigned to the college on a regular schedule. Physicians are employed, as needed, for consultation and examination of students.

HOUSING. Glendale 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, ing in the Office of the Dean of Student Personnel, Administration Building, Room 104.

LOANS. A loan fund for worthy and needy students has been maintained by donations from the Faculty Club, Associated Students, the Patrons Club of Glendale College, community organizations, and private donors.

Applications for loans may be made to either the Dean of Student Personnel, Administration Building, Room 104, or the Dean of Student Activities, Administration Building, Room 106.

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, Administration Building, Room 104. Selection is made by the Glendale 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.
**Alpha Gamma Sigma Scholarship.** The Glendale College Chapter of Alpha Gamma Sigma State Scholarship Society awards a scholarship of $50.00 each semester to one 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 University Women Scholarship.** A scholarship of $200.00 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 Business Women's Association Scholarship.** One $100.00 scholarship is awarded annually to a woman student with a 3.0 grade point average who is continuing her education at a four-year college or university. She must be a resident of Glendale.

**Arion Music Awards.** A medal is awarded to the outstanding student in each of the following musical activities of Glendale College:

- Outstanding Woman in College Choir by the La Crescenta Women's Club
- Outstanding Man in College Choir by the Patrons Club
- Outstanding Member of the Orchestra by the La Crescenta Rotary Club
- Outstanding Member of the Band by the Glendale American Legion

**Assistance League of Glendale Scholarship.** The Assistance League of Glendale awards $100.00 each to two continuing students for expenses while attending Glendale College.

**Associated Women Students' Scholarship.** Each year the Associated Women Students award $100.00 to two women students who have been members of the board for a minimum of two semesters, have good scholastic records, and plan to continue their education.

**Bank of America Business Awards.** The Bank of America awards two scholarships of $300.00 each to outstanding students in the field of business and secretarial science.

**Beta Kappa.** A $50.00 scholarship is awarded annually to a member of the Club who is preparing for a business career.

**Dental Hygiene.** A scholarship of $200.00 is awarded annually by the San Gabriel Valley Dental Hygiene Society to a woman who has been accepted to USC or Loma Linda Dental Hygiene Schools.

**Doehring Foundation.** Two $500.00 scholarships are awarded to either men or women who have achieved well academically and are transferring to a four-year school.

**Edvard Greig Norwegian Scholarship.** Two $50.00 scholarships are awarded each semester to help defray Glendale College expenses.
Ella Woodrow. Two $50.00 scholarships are awarded by Mrs. Woodrow of the College Faculty to two outstanding students in Apparel Design to defray expenses of the course.

Gateway Kiwanis Scholarship. The Gateway Kiwanis Club of Glendale each year awards $300.00 to an outstanding sophomore student who is planning to transfer to a four-year institution. Preference is given to future teachers of industrial arts.

Glendale Academy of Dentists Scholarship. The Glendale Academy of Dentists makes a scholarship award of $100.00 to a student who has been accepted for admission to the Dental College of the University of Southern California.

Glendale College Dental Alumni Fund. This $200.00 scholarship is awarded by alumni of the College who are practicing dentists. A necessary criterion is acceptance into a college of dentistry.

Glendale College Patrons Club Scholarships of $50.00 each are available to both men and women for use at Glendale College. These are awarded primarily on the basis of financial need. Approximately $1200.00 is donated yearly by the club.

Glendale College Patrons Club Highest Man and Woman Awards. The Patrons Club makes a $50.00 cash award each year to the man and woman in the graduating class who have achieved the highest grade point average.

Glendale Medical Assistants. A $150.00 scholarship is awarded each year to a man or woman who has completed two years of college and who plans to enter the paramedical field.

Glendale Teachers' Association Teaching Scholarship. The Glendale Teachers' Association makes a $150.00 scholarship award each year to an outstanding Glendale College student who will transfer to a four-year institution to prepare for a career of teaching.

Glendale Women's Classified Service Clubs Scholarship. The Altrusa, Pilot, Soroptimist, and Zonta Classified Women's Service Clubs award a scholarship of $300.00 to an outstanding woman who is entering an accredited college as a candidate for a degree of arts, letters, or science. The purpose of this scholarship is to encourage women to continue their higher education.

Hutchinson and Bloodgood Public Accounting Scholarship. The C.P.A. firm of Hutchinson and Bloodgood, the junior partners of which are former Glendale College students, awards $1,000.00 every two years as follows: $500.00 for the junior year and $500.00 for the senior year to a Glendale College student transferring to upper division work preparing for a C.P.A. career. The selection is made in the Spring by the Scholarship Committee from nominations of qualified students by accounting instructors.

J. C. deGraaf Scholarship. A $100.00 scholarship from Mr. and Mrs. deGraaf is awarded each spring to a student transferring to upper division.
J. Lee Gregg Scholarship. The Fiel Foundation has established a scholarship in memory of Mr. J. Lee Gregg, prominent Glendale citizen. $150.00 per month for the nine school months for two years 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 College, and final selection of the recipient is made by the Gregg family.

Janet and John Delmonte Scholarship. Two $50.00 scholarships are awarded during the year to either a man or woman who is high in scholarship. The purpose is to help defray Glendale College expenses.

Jemima Thompson (Patrons Club). A scholarship of $100.00 is awarded to either a man or woman who is transferring to upper division and who has maintained a good scholastic record.

John E. Kienle Scholarship in Sociology. Two $100.00 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 College.

La Crescenta Women's Club Scholarship. Two $100.00 scholarships are awarded each year to a man and woman resident of La Crescenta who are transferring to a four-year college or university. Nominations are made by the Glendale College Scholarship Committee and final selection of the awardees is made by the Club.

Larry Tuckman Memorial Scholarship. $100.00 is awarded each year to an outstanding music student by the family of Larry Tuckman, a former student of Glendale College.

Little Theater of the Verdugos Award. The Little Theater of the Verdugos each year awards $200.00 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 National Association of Accountants. LANAA annually awards a $200.00 scholarship to a transferring student who plans to major in accounting. Three candidates who have earned a 3.0 grade point average or better will be selected by the Business Division faculty, and the final selection will be made by the members of the LANAA Scholarship Committee.

Montrose-La Crescenta Kiwanis Scholarship. A scholarship of $250.00 is awarded each year by the Montrose-La Crescenta Kiwanis Club to an outstanding young man or woman from the Montrose-La Crescenta area upon registration at a four-year college or university.

Oakmont League of Glendale Scholarship. The Oakmont League awards a $2,000.00 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. A $100.00 scholarship is also awarded to the alternate. Candidates are selected by the Glendale College Scholarship Committee, and final selection of the recipient and the alternate is made by the Scholarship Committee of Oakmont League.

**Panhellenic Scholarship.** Each year the Glendale Area Panhellenic Association awards a $150.00 scholarship to a graduating woman who plans to continue her education at a four-year college or university where there are national sororities.

**Paramedical Memorial Scholarship.** A Memorial Scholarship of $200.00 offered by the Glendale District Woman’s Auxiliary to the Los Angeles County Medical Association, is awarded annually to a man or woman student entering the baccalaureate degree program in nursing or other paramedical programs.

**Richard W. Tang, Jr. Memorial of $50.00** is awarded each year to the outstanding male athlete of Glendale College.

**Tuesday Afternoon Club Juniors** award $100.00 each spring to an outstanding freshman woman who is returning to Glendale College in the fall.

**Tuesday Afternoon Club Scholarships.** Each year the Tuesday Afternoon Club makes two awards of $100.00: one to an outstanding man who has majored in science, and is transferring to a four-year institution to complete his training in science; and one to an outstanding woman who plans on becoming a teacher.

**Wall Street Journal Award.** The Wall Street Journal makes an award of a medal and one year’s subscription to the Wall Street Journal to an outstanding student in the field of business administration.

**Webb’s Department Store Scholarship.** Webb’s Department Store gives a scholarship of $100.00 to a woman student who is outstanding in the field of merchandising.

**Webb’s Store for Men** makes an award of $100.00 to a man student who is outstanding in the field of merchandising.

**William E. McDonald Scholarship.** Each spring a $50.00 scholarship is awarded to a member of Alpha Gamma Sigma upon transfer to the upper division of a four-year college or university. The donor is Mr. William E. McDonald, former member of the Glendale College faculty.

**Women’s Athletic Club Study Grant.** The Women’s Athletic Club of Glendale makes a $300.00 scholarship award to an outstanding woman in the graduating class who plans to make a career in physical education.

**Zeta Sigma Phi Scholarship.** Each year Zeta Sigma Phi, a women’s service club of Glendale College, awards a $50.00 scholarship to its graduating or transferring member with the highest grade point average. This scholarship is a memorial to Barbara Johnson, a former member of Zeta Sigma Phi.
Student Government

and Activities

The Associated Student Body of Glendale 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 9:00 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.

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, and student assemblies. A Master Calendar is maintained in the Office of the Dean of Student Personnel, 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 College. The College is a member of the Western State Intercol-
legiate Athletic Conference and participates in most of the sports programs sponsored by the Conference. The College Recreation 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. The intramural office is located in the Campus Center Building.

Clubs. Opportunity to render service to Glendale 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 or 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 College.

Any Glendale College student who participates in hazing of any kind shall be suspended from College or further disciplined 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 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 Co-Rec 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

"Vaqueritos Day." New students are expected to attend Vaqueritos Day Program in the Auditorium on the Friday immediately preceding the first day of the Fall Semester from 9:30 a.m. to 12 noon. Members of student government and administrators are introduced and procedures of the complete Orientation Program are explained. The general meeting is followed by the Hen Party of the Associated Women Students and the Stag Party of the Associated Men Students where regulations, policies, and future events of these two organizations are presented. A tour of the Campus and a social hour in the Campus Center complete the morning's program of the first semester.

In addition to their participation in Vaqueritos Day an effort is made to acquaint foreign students with the traditions of American college life as it may be related to them on the Glendale College Campus. Associated Men Students and Associated Women Students are especially helpful in aiding in this program. Each year the culmination of additional activities for foreign students is the dinner given in their honor by the Executive Boards of A.W.S. and A.M.S.

"Howdy Hop." With student body officers acting as hosts and hostesses, the Howdy Hop is held in the Campus Center from 8:00 p.m. to 12 midnight during the first week of each semester. Dancing and games help new students to meet each other. This event is either "stag" or "drag."

"Cider Sip" and "Dungaree Dinner." Sponsored by the Associated Women Students, the "Cider Sip" and "Dungaree Dinner" are two added features of the Orientation Program for women students. They help the new woman student to become better acquainted with other women and with the purposes and activities of the Associated Women Students and Women’s Service Clubs.
# ORGANIZATION ROSTER

## A.S.B. GOVERNMENT

<table>
<thead>
<tr>
<th>Organization</th>
<th>Membership</th>
<th>Meets 1 &amp; 3 Tuesday</th>
<th>Meets 2 &amp; 4 Tuesday</th>
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<th>Subject to Qualifications</th>
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<tr>
<td>A.S.B. Legislature</td>
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<tr>
<td>A.W.S. Board</td>
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<tr>
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## ATHLETIC ORGANIZATIONS

<table>
<thead>
<tr>
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## INTEREST CLUBS

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<thead>
<tr>
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<tbody>
<tr>
<td>Alpha Chi</td>
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</tr>
<tr>
<td>Aqua Vaqs</td>
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</tr>
<tr>
<td>Archi</td>
<td>Both</td>
</tr>
<tr>
<td>Beta Kappa</td>
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</tr>
<tr>
<td>Biology</td>
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</tr>
<tr>
<td>Delta Tau</td>
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<tr>
<td>Flying Club</td>
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<tr>
<td>Glendale College Democrats</td>
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<tr>
<td>Glendale College Republicans</td>
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<tr>
<td>Intervarsity Christian Fellowship</td>
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</tr>
<tr>
<td>Kappa Pi Sigma</td>
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</tr>
<tr>
<td>Photography Club</td>
<td>Both</td>
</tr>
<tr>
<td>Pre-Dental Club</td>
<td>Both</td>
</tr>
<tr>
<td>Tau Omega Phi</td>
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## HONORARY ORGANIZATIONS

<table>
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<tr>
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<tbody>
<tr>
<td>Alpha Gamma Sigma</td>
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<tr>
<td>Beta Phi Gamma</td>
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<tr>
<td>Delta Psi Omega</td>
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</tr>
<tr>
<td>Epsilon Omega</td>
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</tr>
<tr>
<td>Sigma Xi Sigma</td>
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## SERVICE ORGANIZATIONS

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<td>Men</td>
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<tr>
<td>Delta Chi Delta</td>
<td>Women</td>
</tr>
<tr>
<td>Gamma Delta Phi</td>
<td>Women</td>
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<tr>
<td>Phi Alpha Theta</td>
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<tr>
<td>Psi Delta Phi</td>
<td>Women</td>
</tr>
<tr>
<td>Zeta Sigma Phi</td>
<td>Women</td>
</tr>
</tbody>
</table>

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 Personnel.
Admission, Counseling
and Registration

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 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 to the Dean of Admissions and Records.

Application. All applications for admission should be sent to the Office of Admissions and Records, Glendale College, Glendale, California 91208.

Transcripts. Each applicant must have a certified transcript of his high school record sent to Glendale College. Applicants who have attended another college or university must, in addition, have transcripts sent from each attended, showing all attempted work. Glendale College reserves the right to evaluate work completed in other colleges. Transfers with acceptable grades will be granted advanced standing in so far as the work completely corresponds with that of Glendale College or the lower division work offered in the University of California. 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 or prevent admission. Transcripts should be sent directly from the high school or college to Glendale College. All transcripts become the property of Glendale College and will not be returned.

Pre-registration Examinations. Each applicant 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.
The results of these examinations are not used to disqualify any person seeking admission, except international students applying for a student visa, but are used to help the student and his counselor in arranging a satisfactory program of studies.

A Psychological Examination gives information on the student’s general aptitude for various types of college work. An English Placement Examination is given to determine the student’s ability to read, write, and comprehend English. 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 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. A Chemistry 1 Placement Examination is administered to all students having the other Catalog prerequisites and planning to enroll in Chemistry 1. An Employee Aptitude Survey Test may be administered to students planning to enroll in a 7 or an 8 unit technical education course.

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

The residence requirements are applied as follows:

1. A “resident student” whose residence is in the Glendale Unified School District which is composed of Glendale, Montrose, La Crescenta, Highway Highlands, Verdugo City, and the western part of La Canada may attend Glendale College.

2. A “resident student” whose residence is in California but outside the Glendale Unified School District and not in another junior college district in California may attend Glendale College.

3. A “resident student” whose residence is in California and in a junior college district other than the Glendale Unified School District may attend Glendale College if he presents a transfer permit from the district of residence.

4. A non-“resident student” may be admitted to Glendale College, but will have to pay a non-resident tuition charge which has been set by the California State Board of Education for the school year of 1968-1969 at $12.50 per semester unit but not to exceed $187.50 per semester.

A “resident student” means any person who is a bona fide resident of the State of California on the first day of instruction of a semester or session during which he proposes to attend. Rules for residence determination are:

**Government Code**

243 **Residence.** Every person has, in law, a residence.

244 **Determination of place of residence.**
In determining the place of residence, the following rules are to be observed:

(1) It is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he returns in seasons of repose.

(2) There can only be one residence.

(3) A residence cannot be lost until another is gained.

(4) The residence of the father during his life, and after his death the residence of the mother while she remains unmarried, is the residence of the unmarried minor child.

(5) The residence of the husband is the residence of the wife.

(6) The residence of an unmarried minor who has a parent living cannot be changed by his own act.

(7) The residence can be changed only by the union of act and intent.

**Education Code 25505.1** Residence for junior college attendance purposes shall be determined in accordance with Government Code Sections 243 and 244 except: (a) If an unmarried minor resides with a parent, the residence of the minor shall be that of the parent with whom he is residing. (b) The residence of an unmarried minor who for at least two years has been in the continuous direct care and control of and has lived with an adult resident of the state other than his parent, shall be that of such resident. (c) A married woman may establish her own residence. A minor is any person who has not reached his/her twenty-first birthday. Where there has been court action or special circumstances not covered in the above, inquiry should be made to the Dean of Admissions and Records as to what the residence determination will be.

**Poliomyelitis and Measles Immunization.** All students registering at Glendale College are required by state law to have at least one poliomyelitis immunization either the Salk or Sabin type prior to first registration, and to have completed the series of three within a period of one year or to file a “contrary to beliefs” statement. Also, each student must, prior to first registration, have measles immunization or file a “contrary to beliefs” statement. Any person who has graduated from a high school in California is deemed to have fulfilled both of these requirements.

**GUIDANCE AND COUNSELING.** Glendale 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 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 Guidance Meetings. Students new to the College each semester meet with their assigned counselors to discuss topics which are especially significant to them as they make educational and vocational plans. These meetings help to solve many problems incidental to the adjustment to rules, regulations, and school policies set up to make educational experiences at Glendale College effective. (See the College Calendar this Catalog page 5.)

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.

Study Skills Laboratory. A Study Skills Laboratory provides students with the opportunity to increase their efficiency in the classroom. Primarily students enrolled in the Developmental Studies Program have been scheduled to use the laboratory. As the space is provided, as equipment becomes more available and programmed texts in various subject areas are added to the library, it is the intent of the College to offer the service to those for whom the problems deterrent to success in the classroom have been identified in consultations with a College counselor.

Eligibility for Courses. A student is eligible to enroll in any course offered at Glendale College provided he has fulfilled the stated prerequisites for the course. A student may occasionally have had outstand-
ing 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.

**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 arrange for an interview with his counselor prior to registration. Registration is the formal arranging of the classes listed on the Study List on a Program Card which is filed in the Admissions and Records Office. Changes from this Program may be made by the student if he completes a Petition for Change of Program.

The student is held accountable for all classes on the Program Card or for classes which have been added by Petition for Change of Program; the student may not receive credit for classes not on the Program Card or for classes which have not been added by a Petition for Change of Program. All students must register in classes for credit; registration for auditing is not permitted. (See section on Withdrawal from Class or College.)

**COSTS.** No tuition is charged at Glendale College for students whose legal residence is in California. A non-resident tuition will be charged students whose legal residence is outside California. The tuition is $12.50 per semester unit to a maximum of $187.50 per semester and is payable at the time of registration.

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

At registration time students will have the expenses of purchasing textbooks, supplies, and other incidentals. Students should bring about $50.00 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. A student taking flight training must contract for these services at his expense.

Students are provided the opportunity to become members of the Associated Student Body. The charge for membership is established each year by the Legislative Branch of the Associated Students. For the past few years an accident insurance policy has been available at a nominal rate to students who are members of the Associated Student Body. Ac-
According to the constitution of the Associated Student Body, a proportional part of the membership fee may be refunded to students who withdraw during the first three weeks of the semester, but after that no refund on fees is made.

ASSOCIATED STUDENT BODY MEMBERSHIP REFUND SCHEDULE

<table>
<thead>
<tr>
<th></th>
<th>REGULAR MEMBER</th>
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<tr>
<td>First Week</td>
<td>$10.00</td>
<td>$5.00</td>
</tr>
<tr>
<td>Second Week</td>
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</tr>
<tr>
<td>Third Week</td>
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The revenue derived from the Associated Student Body membership dues supports a variety of College activities, including assemblies, athletics, dramatics, music, publications, radio production, and the social activities of the College.
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 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, may not register for more than 16 units plus one unit of music performance and a physical education activity. Advanced students may not register in more than 18\(\frac{1}{2}\) semester units. These unit limitations apply to the total of day and extended day courses.

SCHOLARSHIP STANDARDS. Glendale College interprets a “C” average as a 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, Inc.-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 reinstated until at least one semester has elapsed after the dismissal.

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.

A student whose ratio of grade points to units attempted is low or a student who shows that he is not profiting from his college work may be placed on academic probation or excluded from College.

**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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points Per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A—Excellent</td>
<td>4 grade points per unit</td>
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<tr>
<td>B—Good, above average</td>
<td>3 grade points per unit</td>
</tr>
<tr>
<td>C—Average</td>
<td>2 grade points per unit</td>
</tr>
<tr>
<td>D— Barely passing</td>
<td>1 grade point per unit</td>
</tr>
<tr>
<td>F— Failure</td>
<td>0 grade points</td>
</tr>
<tr>
<td>WF—Withdrew Failing</td>
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<tr>
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<tr>
<td>W—Withdrawn</td>
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<tr>
<td>Cr—Credit</td>
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</tbody>
</table>

An incomplete grade (Inc.) will be given only when an unforeseen 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 made, regardless of whether or not the student re-registers. An “Inc.” is computed the same as an “F” for grade point purposes until made up. If not removed, the incomplete grade automatically becomes a grade of “F.”

The grade of “F” in any course denotes failure. It does not fulfill requirement for entry into any new course for which the course failed is a prerequisite, and the course must be repeated if the student desires credit. An “F” cannot be removed by examination. Except in the case of an “Inc.” or clerical error, instructors will not be permitted to change a grade once it has been accepted by the Office of Admissions and Records, and all changes involving clerical error, prior to being made must be approved by petition.

A student having earned a grade of “A,” “B,” or “C” in a course will not receive credit or grade points on the repeat. Units attempted in computing grade point average will not be increased by such a repeat. A student who has received a grade of “D” may repeat the course and receive the grade points earned upon repetition. A student who has received an “F,”
“WF,” or “WU” may repeat the course and receive the credit and grade points earned upon repetition. Units attempted in computing grade point average will be increased by the unit value of each course repeated after receiving a “D,” “F,” “WF,” “WU,” or “Inc.”

Grade point average is the total number of grade points divided by the units attempted. The units attempted is the sum of the units in which passing grades have been received and, where there is an “F,” “WF,” “WU,” or “Inc.,” the units which would have been allowed if a passing grade had been earned. An “Inc.” made up carries the grade points per unit appropriate to the grade given on make-up; an “Inc.” not made up automatically becomes an “F” as indicated above and is computed as such in units attempted and grade points. Units of “W’s” are not counted in the units attempted. In case of the repetition of a course in which a “D,” “F,” “WF,” or “WU” has been earned, the unit credit value of the course will be figured in the units attempted for each time attempted. The unit value of courses in which credit (Cr) only is allowed on satisfactory completion of the course is not included in units attempted in computing grade point average. No grade points are allowed in these courses.

The grade point equivalent of a “C” is 2.0.

GENERAL CONDUCT. Students are expected to maintain the highest standards of citizenship. Specific rules and regulations have been printed in a booklet, “Personal Conduct at Glendale College,” and each student is responsible for observation of these regulations. If, in the judgment of the administration a student’s conduct is improper, either on or off Campus, the student will be placed on probation, suspended, or withdrawn from College. The decision in each case will be a College decision based upon the welfare of the greatest number of students.

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 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. Students who find it necessary to be absent from College for one or more classes should complete a Petition to Make Up Work in advance of leaving.

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 he files a Petition for Change of Program or a Petition for Honorable Dismissal, which is the withdrawal from College. These Petitions are obtained from the student’s counselor. Failure to attend classes does not constitute a regular withdrawal, and may result in an “F” or “WU” 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 six weeks of the semester will be assigned a “W” mark. Students withdrawing from class or College from the seventh week through the twelfth week of the semester will receive a “W” if passing in the course on the date of withdrawal; a “WF” if not passing. All students withdrawing from class or College after the twelfth week of the semester will receive a “WF” in each course unless special approval otherwise is granted upon petition. Easter vacation is not to be considered as one of the twelve weeks. The responsibility for petitioning rests with the student. All students leaving school after the sixth week of the semester who have not made out an official withdrawal will receive an “F” or a “WU” on their records. “WU’s” or “WF’s” are figured the same as “F’s” for grade point purposes in determining scholarship standing.

Students must have taken out petitions by noon of the Friday of the sixth week and by noon of Friday of the twelfth week and have completed them before the Office of Admissions and Records closes on the respective Friday if penalty is to be avoided.

Where a course is shorter than a semester length, the course is divided proportionately and the regulation applied.

PHYSICAL EDUCATION. Each student is required to enroll, to attend regularly, and to maintain a satisfactory record in physical education for each semester in Glendale College, except that a person may be exempted upon presentation of evidence that he (1) has attained the age of 21 years as of the first day of instruction in the semester, or (2) is registered for 8 units or less, or (3) has a medical excuse on file (in this case, the Physical Education Department may develop a program of modified activity), or (4) is a junior college graduate.

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 petition.

CLEARANCE OF OBLIGATIONS. All obligations to the College must be met before a student’s record may be considered clear.

TRANSCRIPTS TO OTHER COLLEGES. Upon the request of a student, a transcript of the student’s record at Glendale College will be sent to any college or university. No charge is made for the first two; a charge of fifty cents each is made for all subsequent transcripts.
Graduation Requirements

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 two-year Glendale College curriculum of 60 semester units, with a "C" average including the following:

1. A major leading to a well defined objective. This requirement may be met by completing the courses necessary for a Certificate of Completion or by completing a 20 semester unit major in Humanities or Science.

2. Two units in American Institutions. Courses which satisfy this requirement include History 17-18*; Political Science 1, 5; Social Science 31-32†.

3. One unit in State and Local Government. Courses which satisfy this requirement include Political Science 6, Social Science 31-32†.

4. Two units in American History. Courses which satisfy this requirement include Economics 11; History 3-4, 5, 10, 17-18*; Social Science 31-32†.

5. Six units in oral and/or written English. Courses which satisfy this requirement include English 1, 2, 21, 22, 23, 24, 25, 26, 31, 32, 41, 42; Business 15, 16; Journalism 2; Speech 3, 21; and Supervisory Training 11, 12.

6. Satisfactory evidence of proficiency in mathematics. This evidence may be a satisfactory score on the Mathematics Proficiency Examination, or a passing grade in either Business 29, Mathematics 50, or Technical Education 43.

7. Health and Physical Education; Health and Physical Education 1 or 2, Health and Physical Education 10, and four semesters of Health and Physical Education activity courses unless legally exempt.

8. One of the following conditions:
   a. Last 15 units in residence.
   b. A minimum of 45 units in residence.

---

* This course satisfies requirement 2 and 4.
† This course satisfies requirement 2, 3 and 4.
Curriculums

Curriculums which may lead to the Associate in Arts Degree* are of two categories, those designated Certificate Programs and those designated Transfer 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.*

TRANSFER PROGRAMS are for students planning to transfer to the university or four-year colleges 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 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 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 Programs for Transfer Students in the section of this Catalog describing programs for transfer students.

* For Graduation Requirements, see page 33.
CERTIFICATE PROGRAMS WHICH CAN BE COMPLETED
AT GLENDALE COLLEGE

Accounting

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

Students who have a definite interest in this type of 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 the business enterprises, or governmental work. This curriculum also provides a broad general education in the field of business administration.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>Recommended Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business 1A-1B or a typing speed of 40 w.p.m.</td>
<td>Business 24, 25, 31, 41, 42</td>
</tr>
<tr>
<td>Business 5C, 11</td>
<td>Economics 7</td>
</tr>
<tr>
<td>Business 15 or English 1, or English 21</td>
<td>Law 18</td>
</tr>
<tr>
<td>Business 16, 23</td>
<td>Mathematics 12, 14</td>
</tr>
<tr>
<td>Economics 1, 2, 13, 14</td>
<td></td>
</tr>
<tr>
<td>Law 17</td>
<td></td>
</tr>
<tr>
<td>Mathematics 10</td>
<td></td>
</tr>
</tbody>
</table>

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 College.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>Recommended Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 1, 2, 3A, 3B, 4, 5, 6, 35, 36</td>
<td>Architecture 5</td>
</tr>
<tr>
<td></td>
<td>Art 7, 11, 23, 37, 38</td>
</tr>
<tr>
<td></td>
<td>Photography 1, 3, 7</td>
</tr>
</tbody>
</table>

Aerospace Technologies—Airlines Administration

_Airlines Administration_ is for those who wish to enter airline work as Clerks, Agents, Station and Traffic Managers, etc.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>Recommended Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Technologies 10, 49</td>
<td>Aerospace Technologies 1A-1B</td>
</tr>
<tr>
<td>Business 21</td>
<td>Business 1A, 15, 16, 33, 34</td>
</tr>
</tbody>
</table>

Aerospace Technologies—Flight Stewardess

_Flight Stewardess_ is for those who wish to become flight stewardesses. 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 Stewardess Program should take Aerospace Technologies 48 prior to Aerospace Technologies 10.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>Recommended Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Technologies 10, 48, 49</td>
<td>Business 1A</td>
</tr>
<tr>
<td></td>
<td>Geography 5</td>
</tr>
<tr>
<td></td>
<td>Home Arts 33</td>
</tr>
<tr>
<td></td>
<td>Psychology 10</td>
</tr>
<tr>
<td></td>
<td>Speech 3 or 21</td>
</tr>
</tbody>
</table>
Aerospace Technologies—Aircraft Powerplant Maintenance and Overhaul (FAA Powerplant License)

Required Courses:
Aerospace Technologies 21-22

Recommended Courses:
Drafting 29
English 31-32
Electronics 75, 76
Health and Physical Education 1, 10
History 5
Political Science 5, 6
Technical Education 43, 44

Aerospace Technology—Jet and Rocket Engine Technician

This program qualifies students to enter experimental programs for jet and rocket engine development. Qualified persons completing this course are suitable candidates for employment at installations similar to Jet Propulsion Laboratories, Edwards Air Force Base and Rocketdyne.

Required Courses:
Aerospace Technologies 21-22, 37

Recommended Courses:
Drafting 29
Electronics 75, 76
English 31-32
Technical Education 43, 44

Aerospace Technologies—Aircraft and Powerplant Maintenance and Overhaul (FAA Powerplant and Airframe License)

This course of study 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: Aerospace Technologies 21-22-25.

Note: The Associate in Arts Degree may be obtained in two years along with the combined "A" and "P" course which requires 3½ semesters by taking subjects required for graduation during the remaining half semester, plus a summer session or in the Extended Day Program.

Aerospace Technologies—Pilot Training

Training offered in this field:

1. Instruction for those who wish to complete two years of college to become eligible to enter Military Aviation Training or to become Commercial Pilots.

2. Basic Pilot Training: Designed for those who want to enter some field other than Military Pilots or Commercial Pilots. It is recommended that the Aviation Mechanic student take this course.

3. Advanced Pilot Training: A course 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 course, it is required that the student satisfactorily complete the required courses of basic aeronautics.

Required Courses:
Basic Pilot Training:
Aerospace Technologies 10
Advanced Pilot Training:
Aerospace Technologies 11, 12, 13, 14, 19

Recommended Courses:
Aerospace Technologies 1, 2A, 2B, 16, 49
Mathematics 1 or Technical Education 43
Apparel Design

A curriculum designed to train persons for employment in the clothing industry as pattern makers and designers, layout workers, sample makers, inspectors, drapers, fitters, cutters and finishers. Ample opportunity exists for students majoring in this field to obtain, through a wise selection of electives, a broad and liberal education.

Required Courses:
Art 5, 6, 23, 24
Business 15, 16
Home Arts 17, 18, 19, 20, 33
Theater Arts 23

Recommended Courses:
Business 1A, 21

Architectural Drafting

This two-year curriculum prepares 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.

Required Courses:
Architecture 1, 3, 5, 9, 10,
11, 12
Art 3A, 4, 5, 6, 11, 12

Recommended Courses:
Business 1A, 15
Carpentry 51
Engineering 11
Technical Education 45, 46

Architectural Engineering Drafting (Commercial)

The two-year curriculum prepares a student to enter employment as an architectural draftsman in the architect's offices. 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 drafting practices.

Required Courses:
Architecture 3, 91, 92, 94
Art 3A, 4, 5, 6, 11, 12
Technical Education 43, or
Mathematics 1, and
Technical Education 44 or
Mathematics 2

Recommended Courses:
Business 1A, 15, 16
or English 31, 32
Carpentry 51
Engineering 11
Technical Education 45, 46

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.

Students who are interested in industrial design but who have not had mechanical drawing in high school should elect Architecture 1. Recommended: Architecture 3, 5, and 23.

Required Courses:
Art 3A, 3B, 4, 5, 6, 7, 8, 11, 12,
14, 15, 16, 23, 24

Recommended Courses:
Art 1, 2, 9, 10, 17, 18, 25, 34, 35,
39, 40, 41, 42, 47, 48, 49, 50
Biology 1A-1B or 22
Photography 2, 7
Banking

Many types of financial institutions such as banks, savings and loan associations, mortgage companies, loan brokers, investment banks, and stock exchanges offer a variety of job opportunities. The suggested curriculum provides a wide general education in business administration important in these fields, as well as basic training in the specialty.

Required Courses:
Business 1A-1B or a typing speed of 40 w.p.m.
Business 5C, or 7, 11, 16, 23, 41
Business 15 or English 1
or English 21
Business 21 or Economics 13
Business 22 or Economics 14
Business 29 or Mathematics 10
Law 17

Recommended Courses:
Business 24, 31, 32, 33, 34, 39, 42, 45
Economics 1, 2, 7
Law 18
Mathematics 12
Real Estate 1

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 expecting to serve in the Armed Forces will find this a suitable preparation for many military classifications. Students who wish to become public accountants should take the accounting curriculum.

Required Courses:
Business 1A-1B or a typing speed of 40 w.p.m.
Business 5C, or 7, 11, 16, 23
Business 21 or Economics 13
Business 22 or Economics 14
Business 15 or English 1
or English 21
Business 29 or Mathematics 10
Law 17

Recommended Courses:
Business 5F, 25, 39, 41, 42, 45
Law 18, 31

Building Technology

Instruction paralleling the course of study for apprentice carpenters is offered in this course. Included is instruction in estimating, blueprint reading, material listing and production work as well as information concerning financing, designing and owner-architect-contractor relations, all of which should assist in advancement to position as estimator, foreman, superintendent or building contractor.

Required Courses:
Carpentry 21, 22, 23, 24

Recommended Courses:
Architecture 1
English 31
Technical Education 43, 44, 46

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.
Required Courses:
Business 1A-1B or a typing speed of 40 w.p.m.
Business 5C, or 7, 11,
31, 32, 33, 34, 39, 42
Business 15 or English 1
or English 21
Business 16 or English 2
Business 21 or Economics 13
Business 22 or Economics 14
Business 29 or Mathematics 10
Law 17

Recommended Courses:
Business 23, 41, 45
Law 18
Mathematics 12
Real Estate 1

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 continuous expansion of data processing in business and industry, students who successfully complete this curriculum will have many opportunities for careers in this area.

Required Courses:
Business 5C, 11, 16, 23, 24, 25
Business 15 or English 1
or English 21
Business 21 or Economics 13
Business 22 or Economics 14
Economics 7
Mathematics 10
Psychology 1 or 10
Speech 3 or 21

Recommended Courses:
Business 1A, 26, 33, 39, 42, 45
Law 17, 18

Business (Small)

Small business operation constitutes a large segment of all business activity since small stores, shops, and manufacturing establishments are the most numerous types of business enterprises in nearly every community. Because the owner or manager of a small business makes a success or failure largely by reason of his own ability, experience, and training, each factor in the operation of that business is exceedingly vital to him.

Since the types of activities of small business are quite varied, it is recommended that the student engage in a part-time job where he can acquire technical information in his particular field of interest. This curriculum provides general technical information for the small business operator and includes a broad general education in business administration.

Recommended Courses:
Business 1A-1B, 5C, 11, 15 or English 1 or 21,
Business 16, 21-22, of Economics 13-14,
Business 29, 31, 32, 33, 34, 39, 42
Economics 1-2
Law 17-18
Real Estate 1

Clerical

The clerical curriculum is outlined for students who wish to prepare for general office work in commercial, industrial, and financial companies, or in government service, as typists, office machine operators, filing clerks, mailing clerks, switchboard operators, or receptionists. The subject matter is designed to cover various phases of civil service examinations for general clerical positions.
Required Courses:
Business 1A, 1B, 1C, 1D, 5A, 5C, 7, 11, 23, 29, 33, 45
Business 15 or English 1
or English 21
Business 21 or Economics 13

Recommended Courses:
Any one of the following:
Business 16
Business 22 or Economics 14
Law 31
Any one of the following:
Psychology 10
Home Arts 33

Dental Secretary

This curriculum is designed for those students who are preparing for a secretarial position in a dentist’s office.

Required Courses:
Biology 20
Chemistry 41 or 43
Business 1A, 1B, 1C, 1D, 3A
3B, 3C, 3D, 5A
Business 15 or English 1
or English 21
Business 21 or Economics 13

Recommended Courses:
Any one of the following:
Business 5C, 7, 16, 29
Business 22 or Economics 14
Any one of the following:
Business 11, 45
Home Arts 33
Law 31
Psychology 1 or 10
Any one of the following:
Chemistry 10
Biology 12, 21

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, materials and shop processes, physics, electronics, structural and machine design is integrated within the framework of the two years of preparation.

Required Courses:
Drafting 31, 32, 33, 34
Technical Education 43, 44, 45 or 46

Recommended Courses:
Drafting 35
Electronics 75
Machine Shop 1, 8
Metals 15
Technical Education 42

For employed students taking Extended Day work the following courses are recommended: 36A, 36B, 37A, 37B.

Drama and Radio Production

A curriculum designed to train students in the field of public speaking, drama, oral interpretation, radio, and television. Those satisfactorily completing the suggested program will be qualified for employment in radio, television, theater, and motion pictures.

Required Courses:
English 1, 2, 25, 26
Speech 3
Theater Arts 3, 4, 5, 9, 21, 31, 34

Recommended Courses:
Art 1, 2
English 5, 6
French 1, 2, 3
Music 20
Psychology 1
Electronics Technician

Development of electronics and communications devices is in a large part responsible for the industrial growth of this country. Craftsmen and scientists conducting research in these fields are constantly adding new methods and machines to an already extensive industry. New discoveries are creating additional employment opportunities in the many fields of electronics. A large part of Space Technology is devoted to electronics, and as this area of science is expanded the need for qualified electronic technicians will greatly increase.

Required Courses:
- Electronics 71, 72, 73, 74
- Technical Education 43, 44, 45

Recommended Courses:
- Drafting 29, 38
- English 31, 32, 42
- Metals 15
- Technical Education 46

For employed students taking Extended Day work the following courses are recommended: Electronics 77, 78, 79, 80, 81, 82.

Engineer—Junior Engineer (See Draftsman)

Executive Secretary

This curriculum is designed for those students who are willing to devote two full years to prepare for positions as office secretaries or as private secretaries to executives. Such opportunities exist in commercial, industrial and financial companies, as well as in government service.

Apprenticeship in routine jobs generally precedes advancement, but a good basic training is essential to obtain the type of position desired.

Required Courses:
- Business 1A, 1B, 1C, 1D, 3A, 3B
- Business 5C, 7, 23, 29
- Home Arts 33
- Business 41, 42, 45
- Law 31 or Law 17
- Economics 1, 2
- Psychology 1 or 10

Home Arts

Training is given in home management, creative design, and skills useful in the home. The one-year program is intensive. The two-year program offers opportunities for electives of personal interest, as well as basic training in home making.

For the graduation requirements see Page ....

For the one-year course the following subjects should be taken:

Required courses:
- Art 3A, 23, 29
- Home Arts 11, 12, 35, 36, 38, 39, 40, 41
- Psychology 31
- Health and Physical Education 1

For the two-year course the following subjects should be taken:

Required Courses:
- Art 3A, 23, 29
- English 1-2
- Business 15-16, 45
- Home Arts 11, 12, 25, 35, 39
- Psychology 1, 31
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.

Required Courses:  
- Business 1A-1B or a typing speed of 40 w.p.m.  
- Business 11, 16, 33, 34, 39  
- Business 15 or English 1 or English 21  
- Business 21 or Economics 13  
- Business 22 or Economics 14  
- Business 29 or Mathematics 10  
- Law 17, 18  
- Real Estate 7

Recommended Courses:  
- Business 31, 32, 41, 42, 45  
- Real Estate 1, 5

Journalism

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

Required Courses:  
- Journalism 2, 3, 4  
- English 1, 2, 5, 6

Recommended Courses:  
- Economics 1  
- History 7, 8, 9, 10  
- Political Science 1

Laboratory Technician

A curriculum designed to prepare the student for routine chemical work in chemical, medical and some industrial laboratories. Sufficient background is provided to the end that when employed the graduate may learn the more specific tasks of the individual laboratory on the job.

Required Courses:  
- Biology 12, 20, 21  
- Chemistry 41 or 43  
- Physics 5, 6

Recommended Courses:  
- Business 15, 16  
- History 10  
- Political Science 1

Laboratory Technologist

A curriculum designed to prepare students for active work in chemical, engineering and industrial laboratories. The students can work as an assistant to a professional chemist, physicist, or engineer.

This program of studies is designed to train persons for responsible positions in or directing work in scientific laboratories at the technician level.

Required Courses:  
- Chemistry 1, 2, 3, 5, 6  
- Physics 5, 6

Recommended Courses:  
- Biology 1A-1B  
- Mathematics 3, 4, 5, 6

Legal Secretary

This curriculum is designed for those students who are preparing for a secretarial position in a law firm.
Required Courses:
Business 1A, 1B, 1C, 1D, 3A, 3B, 3C, 3D, 3L1-3L2, 5A, 16
Business 15 or English 1
or English 21
Business 21 or Economics 13
Law 17, 18

Recommended Courses:
Any one of the following:
Business 5C, 7, 29, 39
Business 22 or Economics 14
Any one of the following:
Business 45
Home Arts 33
Law 31
Psychology 1 or 10
Any one of the following:
Business 11, 23, 41
Economics 1, 2
Real Estate 1

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.

Required Courses:
Business 1A, 1B
Economics 1
English 1, 2, 5, 6
History 7, 8, 9, 17, 18

Recommended Courses:
Science courses 8 units
Psychology 1
Art 1 or 2
English 24, 40
Music 20

Practical experience as a student assistant in the Glendale College Library for one semester.

Machine Shop

Students completing the machinist trade training program with a "B" average in machine shop courses and with a strong mathematical background are eligible for apprenticeship training leading to a journeyman tool and die maker.

Required Courses:
Machine Shop 1, 2, 3, 4
Technical Education 43-44 or equivalent

Machinist Trade

The two-year curriculum is designed to prepare 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.

Required Courses:
Machine Shop 1, 2, 3, 4,

Recommended Courses:
Drafting 29
Electronics 75
English 31, 32
Machine Shop 9
Technical Education 43, 44, 45, 46
Welding 17, 18

Medical Secretary

This curriculum is designed for those students who are preparing for a secretarial position in a physician's office.
Required Courses:
Biology 20
Business 1A, 1B, 1C, 1D, 3A, 3B, 3C, 3D, 3M, 3N, 5A, 39
Business 15 or English 1
or English 21
Business 21 or Economics 13
Psychology 1 or 10
Sociology 1

Recommended Courses:
Any one of the following:
Business 5C, 7, 16, 29
Business 22 or Economics 14
Sociology 2
Any one of the following:
Business 11, 23, 45
Home Arts 33
Law 31
Any one of the following:
Biology 12, 21

Nursery School Assistant
To meet the needs of those preparing for the State permit required for employment in the Children's Centers or the Extended Day Care Centers:
A two year curriculum is outlined below:

Required Courses:
Home Arts 35, 36, 39, 40, 41
English: Any semester course or
Educational for Business
Psychology 1 or 10
Social Science: Any semester course
Health and Physical Education
2, 10
Music 10

Recommended Courses:
Anthropology 2
Art 3A
Education 1
Home Arts 11, 12, 25, 33
Music 60
Photography 1, 2, 3,
Psychology 31
Science: Any course
Sociology 1
Speech 1

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

Required Courses:
Vocational Nursing 1, 2, 3, 4, 5

Recommended Courses:
English 31
Home Arts 33
Mathematics 50

Office Work (See Clerical)

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; and if wishing to become newspaper photographers, they would profit by courses in journalism.

Required courses:
Art 3A
Photography 1, 2, 3, 5, 7

Recommended Courses:
Art 4, 5
Chemistry 41 or 43
English 1-2
Physics 5-6
Social Science 31-32
Police Science

This curriculum in Police Science is designed for in-service or pre-service students who wish to prepare for, or 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.

Required Courses: (Minimum of 20 units selected from the following)
- Police Science 1, 3, 4, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 30, 36

Recommended Courses:
- English 31
- Psychology 1, 2, 31
- Sociology 1

Radio and Television Servicing (See Electronics Technician)

Real Estate

Many job opportunities exist in the larger real estate offices, in title companies, in real estate 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, agents, and brokers pass examinations before they may work in their respective fields.

Glendale College will grant a Certificate in Real Estate to persons who satisfactorily complete fifteen units chosen from the required real estate courses and nine elective units in recommended courses for a total of twenty-four units.

Required Courses:
- Real Estate 1, 3, 5, 7, 9, 11

Recommended Courses:
- Business 1A, 1B, 11, 16, 29, 32, 33, 39, 41, 42, 45
- Business 15 or English 1 or English 21
- Business 21 or Economics 13
- Business 22 or Economics 14
- Economics 1, 2
- Law 17, 18

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.

Required Courses:
- Health and Physical Education 2, 3, 4, 10, 19, 20
- Education 1
- Four units of activity from the following:
  - Health and Physical Education 27A or B, 29A or B, 37A or B, 38A and B, 42A and B, 55, 72A, 73A, 75A

Recommended Courses:
- Art 5, 39, 40, 47
- Biology 10, 30, 37, 38
- Business 1A, 1B
- Music 30 or 31
- Psychology 1 or 10, 41

Salesmanship and Merchandising

The several types of organizations to be found in the distributive industry offer many specialized types of work, and opportunities exist for single proprietorship.

This curriculum is designed for those who plan careers in activities such as retail or wholesale selling, retail store management, advertising, or warehousing. The suggested curriculum offers a wide general education in business administration as well as basic training in the specialty.
Required Courses:
Business 1A-1B or a typing speed of 40 w.p.m.
Business 11, 16, 31, 32, 33, 34
Business 15 or English 1
or English 21
Business 21 or Economics 13
Business 29 or Mathematics 10

Recommended Courses:
Business 22 or Economics 14
Business 41, 42, 45
Law 17 or 31
Mathematics 12

Secretarial—General

The General Secretarial curriculum is planned for students who wish to prepare for positions as professional secretaries. The training is intensive. Upon completion of the curriculum the graduates are equipped to enter any of the major fields of business.

Required Courses
Business 1A, 1B, 1C, 1D, 3A, 3B, 3C, 3D, 5A 5C, 7, 11
Business 15 or English 1
or English 21
Business 21 or Economics 13

Recommended Courses:
Any one of the following:
Business 16, 29
Business 22 or Economics 14
Any one of the following:
Business 23, 45
Home Arts 33
Law 17 or 31
Psychology 1 or 10

Supervisory Training

A training program for foremen, supervisors, leadmen, and other group leaders in business and industry. A Certificate of Completion in Supervisory Training will be granted those who satisfactorily complete a 24-unit program as outlined. Students may select electives in specialized fields such as technical drafting, blueprint reading, electronics, trade mathematics, etc.

Required Courses:
(A minimum of 20 units selected the following.)
Supervisory Training 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

Recommended Courses:
English 1, 2
Social Science 31-32

Social Studies Statistician

This course is for the student who would like to be of special assistance to librarians in government agencies or colleges. The training would familiarize the student with vocabulary and concepts in most of the social sciences.

Required Courses:
Anthropology 2
Economics 7
Psychology 1, 31
Social Science 31-32
Sociology 1

Recommended Courses:
Business 1A, 1B, 23, 29
English 1
History 7-8, 7-9, 8-9
Speech 3

Technical Illustration

Technical illustration is a visual communication process of preparing art work for our existing age of science and technology. Industry’s ever growing demands require a broad training program 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, exhibits and models. The need for technical illustrators
and 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 and illustrators.

Required Courses:
Technical Illustration 65, 66, 67, 68

Recommended Courses:
Art 3A and 5
Engineering 3 or Architecture 3
English 31
Technical Education 45
Technical Illustration 69

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 College.

Required Courses:
English 1 or 21 or 41
Theater Arts 3, 4, 5, 21, 22, 31, 34

Recommended Courses:
Carpentry 21
English 2, 25, 26
Technical Illustration 65
Theater Arts 9, 35

Tool Engineering or Tool Design

Required Courses:
English 1 or 21 or 41
Machine Shop 1, 2, 3,
Mathematics 3
Physics 5, 6
Speech 3

Recommended Courses:
Chemistry 1
Economics 1
History 10
Political Science 1
Psychology 1
Machine Shop 4
TRANSFER PROGRAMS WHICH CAN BE COMPLETED AT GLendale 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, especially economics which recognizes certain business and accounting courses as part of the major. Beginning with the sophomore accounting course, the student may pursue a carefully designed program of study in accounting and other courses offered by the Department of Business Administration, leading to a fifth year in the MS program.

Listed below are suggested programs leading to bachelor's degrees in either economics or political science, followed if desired by either an MBA program or an MS program in the Graduate School of Business Administration. The MS program is specifically designed to provide a one-year graduate specialization in accounting. The MBA program provides a broader background in business administration, perhaps more suitable for a management accounting career.

Economics: Economics 1, 2, 13, 14; Mathematics 14.
Political Science: Political Science 1, 10; Economics 1, 2, 13, 14; Mathematics 14.

Aeronautics (Baccalaureate Majors)

San Jose State College

Maintenance — The curricula for the two B.S. 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 Agency-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: Aerospace Technologies 10; Chemistry 1, 2; Economics 1; Engineering 3, 4; English 1; Mathematics 3, 4; Physics 4A-4B; Psychology 1; Speech 3.

Required courses — Operations: Aerospace Technologies 10; Chemistry 10; Economics 1, 2, 7, 13, 14; Engineering 4, 41; English 1; Law 17; Physics 5, 6; Psychology 1; Speech 3.

Agriculture

University of California, College of Agricultural Sciences, Berkeley; College of Agriculture and Environmental Sciences, Davis, and School of Agricultural Sciences, Riverside; School of Forestry, Berkeley; School of Veterinary Medicine, Davis:

Students may specialize in any of the fields of science and business management relating to agriculture at the University of California. These fields include plant and animal sciences, natural resource, soil and water science, forestry, veterinary
medicine, agriculture, various specialties in the general area of home economics, and nutrition and food science, as well as the specialized fields of crop protection such as entomology and plant pathology. Students should consult the catalogs of the appropriate campuses of the University of California for the detailed requirements of each specialty. Many variations exist in the specific courses required, but training in these fields is highly specialized and scientific.

California State Polytechnic College:

California State Polytechnic College, San Luis Obispo, offers degree curricula in Agricultural Business Management, Ornamental Horticulture, Agricultural Engineering, Animal Husbandry, Crops Production, Dairy Husbandry, Dairy Manufacturing, Farm Management, Food Processing, Poultry Husbandry, and Soil Science. Students interested in these programs should consult the catalog of California State Polytechnic College for details of requirements. For lower division requirements to California State Polytechnic College see page 188-189 in this Catalog.

Architecture

Students who wish to become candidates for a degree in Architecture must plan on five years of college work, in many schools, six years. A representative exhibit of junior college work in Art and Architecture together with a statement from the instructors as to the content of the course must be presented to the university for evaluation during the early part of registration week to determine the amount of advanced standing in Architecture to be given each individual.

California State Polytechnic College (San Luis Obispo)

Required: Art 5; Mathematics 2-3-4-5; Physics 4A, 4B, 4C; English 1-2; Health and Physical Education 1; Engineering 11; Chemistry 1; also, Law 17; Biology 1A; Psychology 1; History 10 and Political Science 1 or 5 (or History 17-18, or Social Science 31-32).

Recommended: Architecture 1, 3, 5, 9, 10, 11, 12; Art 3A, 4, 6. (Placement in Architecture classes at California State Polytechnic College depends entirely on the quality of the student’s portfolio of work completed at Glendale College.)

University of California, Berkeley

Students planning to study architecture on the Berkeley Campus will elect a program which will concentrate on a four-year pre-professional Bachelor of Arts curriculum and professional work at the graduate level.

In addition to satisfying the general university entrance requirements, the high school course should include, whenever possible, a year of freehand drawing, architectural or mechanical drawing, two years of algebra, chemistry, plane and solid geometry, trigonometry, and physics. If the entrance requirements of two years of foreign language in high school is satisfied, no foreign language is required in the Department of Architecture at the University of California, Berkeley.

Students preparing for the Bachelor of Environmental Design (to be followed by the degree of Master of Architecture) should fulfill the Breadth Requirements of the College of Letters and Science (see appendix) including in their program the following courses:

Political Science 1, History 10, English 1-2, Foreign Language 1-2-3, Mathematics 3-4-5, and Physics 4A, 4B, 4C.

University of Oregon:

Students must satisfy the lower division requirements before admission with junior standing.

Recommended: Architecture 3, 5, 9-10; Art 3A, 4, 5, 6; Mathematics 2, 3; Physics 4A-4B-4C or 5-6.
University of Southern California, School of Architecture and Fine Arts:

Students who plan to study architecture or industrial design should confer with the Office of the Dean of the School of Architecture at the University for a recommended program.

Atmospheric Science
University of California, Davis

The University of California, Davis, now offers the undergraduate curriculum in Atmospheric Science. The curriculum is administered by an interdisciplinary group in the soil, water and atmospheric sciences and is directly supervised by the Department of Agricultural Engineering. The curriculum will lead to a Bachelor of Science Degree. The course of study is designed to provide students with a strong basic physical science background for atmospheric problems.

Career opportunities are excellent in the atmospheric sciences. Several governmental agencies, including the Environmental Science Services Administration (ESSA) and the Bureau of Reclamation, maintain large and expanding staffs of atmospheric scientists. For instance, the meteorological satellite programs require literally hundreds of atmospheric scientists, both in the Meteorological Satellite Center near Washington and in operation and research stations throughout the world. The National Aeronautics and Space Administration (NASA) employs similarly large numbers of atmospheric scientists for such challenging problems as research and development of space experiments, the interpretation of data obtained from outside the earth's atmosphere, and the investigation of the atmospheres of other planets. In addition, there are now numerous private and industrial organizations, ranging from a one-man operation to the large aerospace companies, which are involved in both operational and research activities in atmospheric science.

Core course requirements are as follows: Biology 1A, 10; Chemistry 1-2; Economics 1; English 1; Geology 1-1L, Geography 1; Mathematics 3, 4, 5, 6; Physics 4A-4B-4C; General Education Requirements.

Bacteriology
College of Letters and Science, University of California at Los Angeles

Students planning to major in this field should follow the lower division requirements for the College of Letters and Science. In addition the following subjects should be included: Chemistry 1-2, 3, 5, 6; (Chemistry 4C, 6C to be taken at UCLA). Biology 1A-1B; Mathematics 3, 4; Physics 5-6; a modern foreign language. Recommended: Mathematics: 5, 6.

Business Administration
University of California, Berkeley

A student transferring from a junior college must have followed a program of studies which would make him eligible for junior standing in one of the colleges of the University. For those who elect lower division requirements for the College of Letters and Science the following courses must be included: Economics 1-2, 7, 13-14; English 1-2; an additional course in English or Speech; Mathematics 3; course 2 of a foreign language; six units of natural science, including one laboratory science (the laboratory requirement may be fulfilled in high school); Sociology 1 or Psychology 1 plus additional sociology, psychology, anthropology. For those who elect lower division requirements for other schools or colleges, e.g., engineering, the following courses must the included: Economics 1-2, 7, 13-14; Mathematics 3.
Business Administration—Graduate
University of California, Los Angeles

The Graduate School of Business Administration admits only students who have Bachelor's Degrees. Detailed information may be obtained from the office of the school.

In any event students should complete Economics 13-14, Economics 1-2, and Mathematics 3.

Business Administration
California State College at Los Angeles

Students planning to enter the School of Business and Economics, California State College at Los Angeles, at the end of two years at Glendale College, must complete a minimum of 60 transferable units and may have a maximum of 70 units, with an over-all "C" average in all work. Courses should be included which will apply on the general graduation requirements for the Bachelor's Degree. The following courses are required: Economics 1-2, 7, 13-14; Mathematics 14; Law 17. See page 191 for general education requirements for California State College at Los Angeles.

Business Administration
San Fernando Valley State College

Office Administration Sequence:
Students planning to major in Business Administration, at the end of two years at Glendale College, must complete a minimum of 60 transferable units and have a maximum of 70 units, with an over-all "C" average in all work. Courses should be included which will apply on the general graduation requirements for a Bachelor's degree. The following courses are required: Economics 1A, 1B, 1C, 1D.

For the option in Office Administration Sequence:
This program is offered especially for students who wish to prepare for positions as administrative assistants, executive secretaries, office managers, office systems analysts, or careers in office data processing. The following courses are required: Business 1A, 1B, 1C, 1D, 3A-3B, 5A, 11.

*Units in Typing limited to six.
**Units in Shorthand limited to ten.

Business, School of
University of Southern California

The University of Southern California offers a curriculum in Business Administration leading toward the Degree of Bachelor of Science. The following courses are required with minimum units shown: Economics 1-2, 6 units; English 1-2, 6 units; Natural Sciences, 8 units; Humanities, 6 units (at least 3 units in English 5, 6, 22, 23, 25, and at least 3 units in any courses in Art, Music or Philosophy); Mathematics 1, 3, 13, or 14, 3 units; Social Sciences 12 units (3 to 6 units in Anthropology 2, Geography 5, 6; 3 to 6 units in Psychology 1, Sociology 1, 2; 3 to 6 units in History 1, 2, 7, 8, 9); courses to meet the requirement in United States History, United State Government, California State Government, 3 or more units; Physical Education, including Fundamentals of Physical Efficiency, and Swimming, two semesters (0 units). Elective credit is given for many Glendale College courses. Those approved may be verified with the counselor.

* See courses listed under these headings for The College of Letters, Arts, and Sciences on page 184.
Chemistry

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 standing of at least 2.5 in courses basic to the major. Recommended courses include: Chemistry 1-2, 3, 5-6; Physics 4A, 4B, 4C; Mathematics 3-4, 5-6; English 1 or Speech 3; Economics 1; German 1-2; History 17-18. One course in social science (see Letters and Science list, page 170). Must include one course in Art 1 or English 5, 19; or Philosophy 1.

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. In addition to the above courses the student must take equivalent to course four in a foreign language, Biology 1A, 12 or 13, four courses in the social sciences, four courses in the humanities. For details on these courses refer to page 170, this Catalog.

Criminology

Majors in Criminology intending to transfer to California State College at 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 College. California State College at Long Beach will accept for transfer credit to be applied toward the major a total of 27 units of lower division work in criminology earned by the Criminology major.

Lower Division: A minimum of 15 units of which Police Science 3, 4, 10 and 20 are required. Courses not satisfied in lower division status may be taken after the student has attained upper division status. Police Science 1, 3-4, 8, 10, 14, 16, 18, 20, 24

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 College and then transfer for the remaining two years to:

University of California, San Francisco

The required courses are:

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<th>Course</th>
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<tbody>
<tr>
<td>Chemistry 1, 5</td>
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<tr>
<td>English 1-2</td>
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<tr>
<td>Biology 1A-1B and 14 or</td>
</tr>
<tr>
<td>Biology 13-14</td>
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<tr>
<td>Psychology 1-2</td>
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</tbody>
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Electives from:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Biological Science</td>
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<tr>
<td>Foreign Languages (in addition to required units)</td>
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<tr>
<td>English Literature</td>
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<tr>
<td>Philosophy</td>
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<td>Social Science</td>
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<tr>
<td>Music or Art Appreciation</td>
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<tr>
<td>History 5</td>
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<tr>
<td>Political Science 5-6</td>
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<tr>
<td>Sociology 1</td>
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</tbody>
</table>

Twenty semester units selected from the social sciences, humanities, and/or foreign languages. Courses from each area are not required.

University of Southern California

Dental Hygiene is a profession limited to women. 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 January 1 of the year in which the student wishes to be admitted.

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The required courses are:
Chemistry 1-2
English 1
Biology 1A-1B
Speech 3
Psychology 1
History 5
Political Science 5-6
Sociology 1

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 two full academic years of college work, including the following courses: Chemistry 1-2, 5-6; Physics 5-6; Biology 1A-1B; and English 1-2. 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

Those who wish to enter the San Francisco School of Dentistry must have completed 60 units of required college study, including the following courses: Chemistry 1-2, 3, 5; Physics 5-6; Biology 1A-1B and 14 or Biology 13-14; English 1-2. Sixteen semester units selected from the social sciences, humanities, and foreign languages.

University of Southern California

Students may apply for admission to the School of Dentistry after completing 60 units of college work including the following courses: Chemistry 1-2, 5-6; Physics 5-6; Biology 1A-1B or Biology 13-14 (Biology 13-14 preferred); English 1-2. Recommended: Art 51-52, Art 1 or 2, or Music 20, English 5-6 or 22-23; History 5, 7-8, 7-9, 8-9; foreign languages; Political Science 5-6; Psychology 1. Applications should be filed well in advance of January 1 of the year in which the student wishes to be admitted.

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 1-2, 5-6; English 1-2; Physics 5-6; Biology 1A-1B, and Vertebrate Embryology. Recommended: Art 51-52; Chemistry 3, Mathematics 3-4.

Economics

College of Letters and Science

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

See Programs for Transfer Students, page 169.

At UC Berkeley:
Required: Economics 1 and 3; Economics 7 or equivalent.
At UCLA:
   Required: Economics 1-2.
   Recommended: Economics 11, and Mathematics 3, 4, 5.
   *Note: Economics major must take one course above Mathematics 1 and one course in statistics before graduation.

At USC:
   Required: Economics 1-2.
   Recommended: Mathematics 6, Economics 7

Engineering

California State College at Fresno

Students planning to complete the work for an Engineering major, (B.S. Degree) should include the following courses: Business 23; Chemistry 1-2; Engineering 3, 8, 10; English 1-2; History 10; Mathematics 3, 4, 5, 6, 30; Physics 4A, 4B, 4C; Psychology 1; Speech 21.

California State College at Fullerton

The engineering curriculum requires completion of 136 semester units for graduation. The options open to students are: Electrical engineering, mechanical (aerospace) engineering, civil engineering, and engineering science. It is particularly important to recognize that our students do not select their major option until the junior year. All students take a common core curriculum for the first two and one-half years.

History and Political Science*, Mathematics 3, 4, 5, 6; Chemistry 1, 2; Physics 4A, 4B, 4C; English 1, 2; Speech 3; Psychology 1; Engineering 3, 8, 10.

*Any Glendale College combination which meets United State History, American Institutions, and State and Local Government requirements will be satisfactory.

California State College at Los Angeles

Students planning to complete the work for an Engineering major, (B.S. Degree) should include the following courses: Chemistry 1; Engineering 1, 3, 8, 10; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C.

Chemistry 2, Engineering 11, or Technical Education 46 will satisfy a lower division elective requirement. Engineering 41 is very desirable.

California State Polytechnic College

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: Chemistry 1-2; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10, 11. Recommended: Engineering 41 or equivalent.

Kellogg-Voorhis, 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 B.S. 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 3, 4, 5, 6; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10, 11; Mathematics 30; Chemistry 1-2; Health and Physical Education 1; English 1-2; Political Science and United States History to meet State requirements.
San Fernando Valley State College

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 have 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 junior colleges at the sophomore or junior level.

The undergraduate program for the first year should include: Chemistry 1-2; Economics 1; Engineering 3, 41; Mathematics 3-4; Physics 4A.

The second year should include: Engineering 8, 10; Health and Physical Education 1; Mathematics 5-6; Physics 4B, 4C.

For the General Education requirement see page 190.

Stanford

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 as 120% semester units of credit are required. In the first two years, students should include in the course of study: Chemistry 1-2; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10, 11. Nontechnical electives including courses in biology, English, humanities and social studies.

University of California at Berkeley,* Davis,**

Los Angeles and 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; 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 1-2; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10, 11. Nontechnical electives including courses in biology, English, humanities and social studies.

* Biology accepted at University of California at Berkeley only for program of Bio-engineering in the Engineering Science curriculum. The Berkeley lower division requirements for Electrical, Industrial, and Mechanical Engineering now include a four unit (quarter) course in Computers and Their Applications. Students entering Berkeley in the College of Engineering fall 1968 and thereafter and majoring in Electrical, Industrial, and Mechanical Engineering will be required to have a substantial course in this material.

** English 1, 2; Chemistry 3, 5, 6; Engineering 11 — Civil Engineers only.

*** Mechanical drawing is suggested as a useful elective.

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. 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. B.S. Degree offered in: Aerospace, Chemical, Civil, Electrical, Industrial, Mechanical, and Petroleum.

Admission Requirements: Students intending to transfer from a junior 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: Chemistry 1-2; English 1; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C; Engineering 1, 3, 10 (except for majors in Electrical Engineering); Psychology 1; U.S. History and Institutions. It must also include English 2 or 4 for majors in Civil and Petroleum Engineering, and Engineering 4 for majors in Aerospace, Mechanical, and Petroleum Engineering.

English
College of Letters and Science

English majors should follow the curriculum pattern outlined under lower division requirements for the college or university to which they intend to transfer. Students must complete English 1-2-5-6-7. It is advantageous for students in lower division of college to continue study of one modern foreign language. It is also recommended that a course in philosophy, History 1-2 or 7-8, 7-9, 8-9, Art 2 and Music 20 be taken. See Programs for Transfer Students Page 169.

Fisheries and Wildlife Management

At Humboldt State College the student may obtain either a B.S. or M.S. Degree in Fisheries, Forestry, and Wildlife Management. B.S. Degrees are also offered in Oceanography and Natural Resources, and a M.S. Degree is available in Watershed Management. These programs lead to employment by state, federal, or private agencies concerned with water, land, and animal research and management. Emphasis in water pollution and range management is possible.

For these majors the recommended courses include: general chemistry (1 year), intermediate algebra, trigonometry.

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 1, 2, 3, 4. Unless student receives grade of "A" or "B" in French 4, it will be necessary to complete French 25 at the University of California prior to being admitted to upper division work.

Recommended: History 1-2; Philosophy 1-2; English 1-2, 5-6; high school Latin.

**German:**

Required: German 1, 2, 3, 4.

Recommended: History 1-2 and English 5-6, 19-20.

**Spanish:**

Required: Spanish 1, 2, 3, 4. Unless student receives grade of "A" or "B" in Spanish 4, it will be necessary to complete Spanish 25A-25B 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. Two years of Latin in high school are required of majors in this field. This requirement may be completed by taking Latin 1, 2 at the University of California before commencing senior year.
Forestry

The School of Forestry, 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 60 units of courses as specified. Minimum requirements may be met by Biology 1A, 10; Chemistry 1; Economics 1, 2, 7; Engineering 11; Geology 1; Mathematics 3; Physics 5-6; and English 1-2 or Speech 3-4.

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 School of Forestry and given at Meadow Valley. Application for the Summer Field Program should be made before March 1.

The Division of Natural Resources of Humboldt State College offers a B.S. and M.S. degree in Forest Management. Recommended lower division courses include Biology 10; Chemistry 1; Engineering 1; Mathematics 1, 2; Physics 5. Suggested electives: Geology 1, Economics 13, and Law 17.

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.

Required: Geography 1, 2, 5-6.
Recommended: Geology 1, Economics 1, 2.
See Programs for Transfer Students, page 169.

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 given above. 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:

At UC Berkeley:
Required: Geology 1-1L and 2-2L; Paleontology 1; 40 units of lower division courses in Physics 4A, 4B, 4C; Chemistry 1-2 and 3, Mathematics 3, 4, 5, 6, and Biology 1A.
Recommended: For students anticipating post-graduate study or a professional career in geology: Chemistry 1-2 and 3, Physics 4A, 4B, 4C.

At UC Davis:
Required: Chemistry 1-2; Geology 1-1L, 2-2L; Mathematics 3-4; Physics 4A-4B-4C or 5-6; Engineering 11, Mineralogy 1.
Recommended: Mathematics 5, 6; Paleontology.

At UCLA:
Biology 1A, 1B; Chemistry 1, 2; Geology 1-1L, 2-2L; Mathematics 3, 4, 5, 6; Paleontology 1; Physics 5-6.
See Programs for Transfer Students, page 169.

History

College of Letters and Science

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

At UC Berkeley:
Required: History 1-2 or 7-8 or 8-9 or 7-9, and History 3-4 or 17-18.
At UCLA:
Required: History 7, 8, 9 and at least three units from History 3, 4, 19, and 20; and six additional units from History 3, 4, 17, 18, 19, 20.

At USC:
Required: Six units from History 1, 2, 7, 8, 9, 19, 20.

Industrial Arts

Students majoring in industrial arts should be primarily planning to secure a teaching credential. This type of training, however, is also designed to qualify for entering industry in a technical capacity. At present, programs in industrial arts education leading to degrees and fulfilling credential requirements are offered at the following California State Colleges: Fresno, San Jose, Long Beach, and Los Angeles. The Catalogs of these particular colleges should be consulted for details of requirements.

California State Colleges: Fresno, Long Beach, San Jose

The following courses are recommended in addition to the General Education requirements of the preceding schools; Machine Shop 5, 6; Art 5, 47; Metals 15; Welding 17.
See Programs for Transfer Students, page 169.

California State College at Los Angeles

In addition to the completion of the General Education requirements (see page 191), the following courses must be elected:
Art 23, Engineering 1, 4, Photography 1-2 or 1-3, Supervisory Training 13; Metals 15; Carpentry 21, 23; Drafting 31, 32, 36A; Technical Illustration 65; Electronics 71, 72, 73, or 76.

Industrial Technology at California State College at Long Beach

Construction Option: Architecture 1, 3, 5, 9-12, 23.
Note: Maximum of 24 units may be transferred.
Biology 1A; Chemistry 10; Business 31; Economics 1, Economics 11 or History 10; Engineering 11; English 1, 2; Health and Physical Education 1, 10; Mathematics 2, 3; Political Science 5, 6; Physics 5, 6; Psychology 1; Speech 3.
Electronics Option: Machine Shop 5; Electronics 71, 72, 73.
Note: Maximum of 24 units may be transferred for courses in Technical Education.
Biology 1A; Chemistry 10; Business 31; Economics 1; Economics 11 or History 10; English 1, 2; Health and Physical Education 1, 10; Mathematics 2, 3; Political Science 5, 6; Physics 5, 6; Psychology 1; Speech 3.
Manufacturing Option: Machine Shop 1; Drafting 31; Architecture 3 or Engineering 3; Technical Electives.
Note: Maximum of 24 units may be transferred for courses in Technical Education.
Biology 1A; Chemistry 10, Business 31; Economics 1; Economics 11 or History 10; English 1, 2; Health and Physical Education 1, 10; Mathematics 2, 3; Political Science 5, 6; Physics 5, 6; Psychology 1; Speech 3.

International Relations

College of Letters and Science, University of California

International Relations majors should follow the curriculum pattern outlined under lower division requirements. See Programs for Transfer Students, page 169.
At UCLA:

Required: History 7-8-9 or nine units from History 3, 4, 19, and 20; Political Science 1-2; and three courses from: Anthropology 2, Economics 1, Geography 1, 2; Sociology 1, 2.

In addition to the required courses, students are advised to obtain a fluency in one foreign language. Courses in other fields of social science are also recommended.

Journalism

The two-year journalism curriculum is designed to give students planning to transfer to a four-year institution the necessary lower division preparation.

The general program should include English 1, 2, 5, 6; Economics 1; Psychology 1; American History and Institutions; Journalism 1 or 2, 3, and 4. For UCLA, the student should include a foreign language, physical and biological science, and a course in fine arts; for USC, students should meet the requirements shown for the College of Letters, Arts, and Sciences (page 184) with the recommendation that they take English 5, 6, or 22 to meet the literature requirement listed under Humanities, and History 9 and Economics 1-2 to meet the Social Sciences requirements. Journalism 1, 2, and 3 will be accepted for a maximum of 8 units. See Programs for Transfer Students, page 169.

Law

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 discussion 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.

Law Enforcement and Administration

San Jose State College

Police Science courses which are acceptable for transfer credit at San Jose State College to meet major requirements for the Bachelor of Science Degree are Police Science 1, 3, 4, 14, 16, 26. The Police Science and Administration major who plans upon graduation to continue his work at San Jose State College should limit his program to the Police Science courses listed above. In addition, he should complete as many as possible of the lower division General Education courses required of all majors at San Jose State College.
Librarianship

There are five library schools in California; they are located at Immaculate Heart College in Los Angeles, San Jose State College, University of Southern California, University of California at Los Angeles, and at Berkeley. Two, Immaculate Heart and San Jose State, are primarily concerned with training librarians for elementary and secondary schools, and are not accredited by the American Library Association. San Jose offers a program leading to a school librarianship credential in the regular four-year period, as well as a longer program for the Master of Arts Degree.

The programs at Immaculate Heart, the University of California at Los Angeles, and at Berkeley and the University of Southern California are all primarily graduate courses leading to a Masters degree, though a few units at both the University of Southern California and Immaculate Heart are open to undergraduate students.

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. All of them prepare a student for school librarianship credentials, but beyond that have strengths in very different fields.

In general, the broadest preparation possible is the best, and it should include at least 16 units of modern foreign languages, preferably French, German, or a modern oriental language. See Program for Transfer Students, page 169.

Mathematics

College of Letters and Science

Students wishing to major in mathematics should follow the lower division requirements of the College of Letters and Science. The following required and recommended subjects should also be included. See Programs for Transfer Students, page 169.

Required: Mathematics 2, 3, 4, 5, 6.

Recommended: Courses in physics, French and German.

Medical Technologists

The University of California School of Medicine (San Francisco) offers a one-year (three semesters) curriculum to students preparing to be medical technologists. The curriculum covers instruction and laboratory practice in medical bacteriology, serology, parasitology, mycology, biochemistry, clinical microscopy, hematology, blood bank procedures, and histologic technic. To be admitted to this curriculum, students must either have a Bachelor's Degree including a major in one of the biological sciences with completion of certain required courses, or have completed three years of a regulation curriculum in medical technology which must have included various required courses. In the latter case, applicants will not be considered unless the college they attended will grant a Bachelor's Degree to them upon satisfactory completion of the four-year program. Students should consult the Announcement of the Paramedical Programs of the University of California School of Medicine (San Francisco) for a list of the required courses and for details of this curriculum.

Medicine

Premedical 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.

Premedical 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, ½ unit, and trigonometry, ½ unit, because these courses cannot be taken in the university.
It is important for 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. Premedical 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 departmental major at the beginning of the third year, at the same time, meeting all premedical requirements, or include in their premedical 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.

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

Applicants must have completed with satisfactory scholarship not less than ninety 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 recommended: Chemistry 1-2, 3, 5-6; English 1-2; Physics 5-6; Biology 1A-1B, 14. Additional work should apply toward the elective and general education requirements along with courses in English, comparative anatomy, genetics and mathematics.

**School of Medicine**  
**University of California, Davis**

- Biology 1A-1B or Biology 13-14
- Chemistry 1-2, 5-6
- English 1-2
- Physics 5-6
- Social Science or Humanities — 12 units (Recommended)

**University of California, Los Angeles**

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. The units must include the subjects in the following list:

- Biology 1A-1B, 14
- Chemistry 1-2, 3, 5-6
- English 1-2
- French 1-2 or German 1-2 — 8 units
- Physics 5-6
- Electives — 10 units

Detailed description of course and admission requirements is available in the Announcement of the School of Medicine, Los Angeles.

**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 13-14
- Chemistry 1-2, 3, 5
- English 1-2
- Foreign language — 8 units
- Physics 5-6
- Social Sciences or Humanities — 12 units

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 1-2, 3, 5-6; English 1-2; Physics 5-6; and Biology 1A-1B or Biology 13-14 (Biology 13-14 preferred). It is recommended that additional courses be selected from the requirements in the College of Letters, Arts, and Sciences shown on page 184.

Loma Linda University

The completion of the following studies is required: Chemistry 1-2, 3, 5-6; English 1-2; Physics 5-6; Biology 13-14; Vertebrate Embryology; Mathematics 3-4; one year of foreign language.

Music

Students majoring in music should check carefully the requirements in foreign language, natural science and high school mathematics, and complete the lower division requirements of the college of their choice. The following required and recommended subjects should be included:

At UC Berkeley.
Required: Music 11, 12, 13, 14, 25, 26, ability to play the piano. (An examination in piano is required of all entering students.)
Recommended: Reading ability in French, German or Italian.

At UCLA (College of Fine Arts or Letters and Science)
Required: The Music Aptitude and Achievement Tests and the Piano Sight Reading Test required of all entering students. (Students entering above the beginning level in music theory take the Advanced Standing Examination in Harmony and Musicianship to determine placement in theory courses.) Music 11, 12, 13, 14, 25, 26, two semesters from Music 30, 31A-31B, 33, 42, 51, and a year of college French, German, or Italian, or its high school equivalent. The Secondary Teaching Credential requires four units in Piano and Music 35-36 in addition to the above. Recommended: Physics 5-6 or 10, or 11.

At USC.
Required: Placement test in Harmony and Musicianship for all entering students. Music Education majors must take entrance examinations in musical aptitude, piano and voice and be able to play on the piano and sing simple songs. Music 11, 12, 13, 14, 25, 26, 2 units in one of the following: Music 31A-31B, 33, 42, 51.

At University of Redlands.
Required: Music 11, 12, 13, 25, 26. Voice majors require French 1 and German 1-2 or German 1 and French 1-2, ability to play the piano moderately well.

At Occidental College.
Required: Music 11, 12, 13, 14, elementary knowledge of the piano.

At Pomona College.
Required: Music 11, 12, 13, 14.

Music—For Teachers

The Kindergarten-primary credential requires the ability to play the piano and sing a simple song. The General Elementary Credential requires the ability to teach simple songs. Students who do not have a thorough knowledge of the fundamentals of music should enroll in Music 10. The following courses are also recommended: Music 11, 12, 35, 60.

Students who wish to work toward a teaching credential in music and an A.B. Degree, should complete the lower division requirements of the college of their choice, including the following music courses: Music 11, 12, 13, 25, 26, and one major and one activity from the following: Music 30, 31A-31B, 35, 36, 42, 51, 60, 61, 62, 63.
Music—Instrumental

Two-year curricula in special fields designed to give the instrumental specialist training in knowledge and performance. Includes all necessary courses required for upper division work leading to a degree in music. Performance experience offered. Students preparing for careers in music may enrich their background by elective courses in foreign language, art and social sciences.

Those working toward a college degree as a performance major should complete the lower division academic requirements of the college or university of their choice. The following music courses should be taken in lower division work: Music 11, 12, 13, 14, 25, 26, and instrumental ensembles*. Recommended Courses: Music 40, 50.

*Appropriate to the instrument (Music 41, 42, 43, 44, 45, 51, 52) and piano (Music 60, 61, 62).

See Programs for Transfer Students, page 169.

Music—Vocal

Two-year curricula in special and general music fields designed to provide training necessary to develop performance and knowledge. Includes all necessary courses required for upper division work leading to a degree in music. Performance experience offered. Students preparing for careers in music may enrich their background by elective courses in foreign language, art, and social sciences.

Those working toward a college degree as a performance major should complete the lower division academic requirements of the college or university of their choice. The following music courses should be taken in lower division work: Music 11, 12, 13, 14, 25, 26, and a choral ensemble (Music 30, 31A-31B, 32, or 33) and Music 60-62. Recommended Course: Music 70.

See Programs for Transfer Students, page 169.

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 College at Los Angeles.

Biology 20, 21, and 12; Chemistry 10; Home Arts 25; Psychology 1; Sociology 1; English 1; Speech 3; nine units humanities; United States History, Constitution and State and Local Government. Students must apply to the Department of Nursing one quarter prior to enrolling in nursing clinical courses.

University of California at Los Angeles

Chemistry 1, 2, 3, 5; Physics 5; Biology 1A-1B or 13-14, and 12; Psychology 1-2; Sociology 1; United States History and Constitution; Anthropology 2; Humanities; Philosophy 1-2 or six units literature (see Letters and Science list). Limited electives (2 courses) see Letters and Science list. Electives 2 courses.

Optometry

University of California, Berkeley

The School of Optometry offers a four-year curriculum leading to the Doctor of Optometry Degree. Admission is granted to 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 1-2, 5-6; Mathematics 3; English 1-2; Psychology 1-2; Biology 12; Physics 5-6; Psychology 1-2; Biology 1A or 21 or 13 or 14.
Los Angeles College of Optometry requires 60 units for entrance including:

Biology 12
Chemistry 1, 2 or 10, 15
English 1-2
History 5 and Political Science 5
Mathematics 3
Psychology 1-2

Art, Music, Literature 3 units
Biology 1A, 1B
Foreign Language 8 units
Health and Physical Education
Philosophy 1
Physics 5-6

Pharmacy
University of California, San Francisco

Students planning to secure the Degree of Doctor of Pharmacy must complete two years of pre-pharmacy and four years in residence in a School of Pharmacy. To be admitted to a School of Pharmacy, students must have satisfied the requirements for admission and at least 60 units of pre-pharmacy studies. Students should consult the catalog of the College of Pharmacy of the university to which they intend to transfer for detailed requirements. The pre-pharmacy curriculum should include Chemistry 1-2, Biology 10, 13-14*, English 1-2, Physics 5-6, Mathematics 3, History 17-18 and elective courses chosen from social science, philosophy or the fine arts.

Students planning to enter the University of California, San Francisco, should present six units of electives chosen as any combination of two semesters from the humanities, social sciences, and foreign languages.

*Note: Biology requirement may be completed by taking Biology 1A-1B and 14.

Pre-pharmacy
University of California at Los Angeles

Students should complete elementary chemistry, trigonometry, and a full year of intermediate algebra in high school.

American History and Institutions
Biology 1A, 1B
Chemistry 1-2
English 1-2
Mathematics 3-4
Physics 5-6
Electives from foreign language, social sciences, humanities.

Pharmacy
University of Southern California

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

Biology 1A-1B or 13-14
Business 1A—(Typing, if not taken in high school—no unit credit)
Chemistry 1-2
Economics 1 or 2
English 1-2
Humanities or additional Social Sciences—4 units
Mathematics 2—(Trigonometry, if not taken in high school)
Mathematics 1—(Intermediate Algebra, if two years of algebra are not taken in high school)
Physics 5-6
Psychology 1
Social Sciences—6 units
Physical Education Teacher

A student planning to become a physical education teacher should consult write-up under “Teaching” for teacher credential requirements. While at Glendale 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 and Physical Education 2, 10, 18, 19, 20; Biology 20 and 21.

Physical Therapy

Physical therapists treat patients who have disabilities resulting from accidents, congenital defects or illnesses. Under prescription of a physician they (1) evaluate the capabilities of the patient by various physical tests; (2) treat patients by using agents such as heat, cold, massage and therapeutic exercise; and (3) teach patients and their families appropriate home treatment and care as well as exercises, activities and use of devices—all with the aim of achieving the greatest possible restoration of functions.

Two or three years of approved college education or a Bachelor’s Degree from an accredited institution will qualify students to enter physical therapy programs approved by the Council of Hospital and Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. Five such programs are available in California: University of California, San Francisco; Stanford University, Palo Alto; Children’s Hospital, Los Angeles; Loma Linda University, Loma Linda; and the University of Southern California, Los Angeles. Students planning to enter this field should complete a two-year program at Glendale College and qualify for junior standing in an accredited institution and then transfer to a physical therapy program or complete an additional year to obtain senior standing or two additional years (the Bachelor’s Degree), including all of the specifically required subjects. For information about the specific requirements write to the Director of the Physical Therapy Program at one of the institutions listed above.

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 184 as well as additional requirements in Natural Sciences. Science credit should include Biology 1A-1B and 21; and eight units from Chemistry 1, 2, Physics 5, 6. Psychology 1 should be taken as one of the Social Sciences.

Physics

College of Letters and Science

Students planning to major in physics should follow the lower division requirements of the College of Letters and Science. In addition, the following required and recommended subjects should be included:

See Programs for Transfer Students, page 169.

Required: Physics 4A, 4B, 4C; Chemistry 1, 2; Mathematics 3, 4, 5, 6.

Recommended: A reading knowledge of German and French; Engineering 41.

Podiatry

California Podiatry College, San Francisco

The candidate to California Podiatry College in San Francisco must present evidence of satisfactory completion of two full years (60 semester units) of pre-podiatry work, fulfilling the requirements as given in the bulletin of the college. The following courses should be included: Biology 13-14; Chemistry 1-2, 5; English 1-2; Physics 5-6.
Police Science and Administration
San Jose State College (See Law Enforcement and Administration)
California State College at Los Angeles

Police Science and Administration majors intending to transfer to California State College at 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 College. California State College at Los Angeles will accept for transfer credit to be applied toward the major a total of 20 units of lower division work in Police Science earned by the Police Science and Administration major.

Police Science courses which are acceptable for transfer credit at California State College at Los Angeles to meet major requirements for the Bachelor of Science Degree are Police Science 1, 3, 4, 8, 10, 12, 14, 16, 20, 26. The Police Science and Administration major who plans upon graduation to continue his work at California State College at Los Angeles should limit his program to the Police Science 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 College at Los Angeles.

Political Science
College of Letters and 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. The following required and recommended subjects should be included.

See Programs for Transfer Students, page 169.

At UC (Berkeley):
Required: Political Science 1, 2.
Strongly recommended: Allied subjects in social sciences: appropriate courses in lower division from: Anthropology 2; Economics 1-2; Geography 1-2; History, any course; Philosophy 1-2, 16, 17; Psychology 1-2 and Sociology 1-2.

Psychology
College of Letters and Science

The lower division requirements of the College of Letters and Science should be followed by students planning to major in psychology. The following required and recommended subjects should be included:

See Programs for Transfer Students, page 169.

At California State College at Los Angeles:
Required: Psychology 1, physiological psychology, Mathematics 1, college algebra.
Recommended: Foreign language.

At San Fernando Valley State College:
Required: Psychology 1 and 2.
Recommended: Statistics, biology, mathematics, philosophy, social science.

At UCLA:
Required: Psychology 1, Biology 1A-1B, two courses in Physics and/or Chemistry (Physics 5, 6, 10 and/or Chemistry 1, 2, 10), Mathematics 3.
Recommended: Sociology, anthropology, philosophy, political science, statistics.

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

Students who major in public health concentrate during their junior and senior years in one of the following areas: biostatistics, environmental health, health records science or school health education, public health nutrition. Students preparing
for the major in public health should take two semesters of beginning foreign language (if they have not taken three years of one language in high school); Biology 1A-1B, 12, Chemistry 1, English 1, History 17-18 and six additional units of social science; Mathematics 3, Philosophy 1-2. The Bachelor of Science Degree program is being discontinued and new students will be accepted only if they can complete the requirements for the degree by September 1971.

Social Work

College of Letters and Science

This major is designed to give the student what is currently regarded as the most suitable background for professional training at the graduate level in the School of Social Welfare. It also provides a broad foundation in the various social sciences. Completion of this major does not guarantee admission to a school of social welfare, and the student is expected to consult his advisor regarding the specific requirements of the school he expects to enter.

Preparation for the major at UCLA. Anthropology 2; Sociology 1; Psychology 1. See Programs for Transfer Students, page 169.

Speech

College of Letters and Science

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 3-4, Public Speaking, Theater Arts 3, 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. In 1961 the California State Legislature set up the framework for a new credential law. Details in the law are implemented by the State Board of Education. The new law became effective January 1, 1964, amended September 17, 1965, and provides for five types of credentials of which two are teaching credentials.

The Standard Designated-Subjects Teaching Credential authorizes service in vocational, trade, and technical teaching.

The Standard Teaching Credential includes specialization in elementary, secondary, and junior college teaching.

Specialization in elementary teaching requires five years of college work with the B.A. or higher degree. A major in a subject not commonly taught by the elementary schools requires two minors.

Specialization in secondary teaching requires five years of college work with the B.A. or higher degree.

Specialization in junior college teaching requires five years of college work with the M.A. or higher degree in a subject matter area.

The Standard Teaching Credential with specializations in elementary or in secondary teaching require specific preparation in general education, professional education, and majors and minors. Details may be obtained from counselors and advisors.

Since the teacher training institutions of California differ in their lower division requirements, a student should consult the catalog of the institution to which he wishes to transfer. The most significant difference is in the field of foreign language, where the requirements vary from sixteen to none. In general, a student planning to transfer to a university or state college should complete at Glendale College the requirements for junior standing in the College of Letters and Science of the institution of his choice.
Teaching Nursery School
Pacific Oaks College

This career requires as much interest in children themselves as in curriculum content. Preparation for teaching young children includes (1) psychology, sociology, anthropology and biology content which builds understanding of human development and (2) broad knowledge of the humanities and sciences. There is no California State Credential for nursery school teaching, although most of the preparation applies to the general elementary credential. This curriculum also prepares for advanced study leading to parent education leadership, child welfare work, research, or child development laboratory teaching.

Completion of the recommended transfer program for Pacific Oaks College (see page 185) will also meet minimum requirements for the State permit for employment in Children Centers, if the following electives are included: Home Arts 35, 40, 41.

Theater Arts
College of Fine Arts

A curriculum designed to train students in the field of dramatic art for the areas of television, legitimate theater, radio, and motion pictures. For students who plan to continue their theater training at the University of California at Los Angeles the following courses are recommended: English 1, 2, 26; French 1-3 or Spanish 1-3; Art 5-6; Speech 3; Psychology 1-5; Theater Arts 3-4, 5; eight units of the following: Theater Arts 21, 31, 34, 35-36.

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.

In recent years an increasing number of women applicants have been accepted and following graduation are pursuing rewarding careers. Such fields as research, laboratory animal medicine, and small animal practice offer many opportunities for the woman graduate.

A minimum of six years of college is necessary to complete the requirements for the Degree of Doctor of Veterinary Medicine. The first step which must be completed is called the pre-veterinary medical curriculum. This consists of a series of required courses which can be completed in two years and may be taken in any accredited university or college. Following completion of the pre-veterinarian 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.

The School of Veterinary Medicine of the University of California (Davis) offers a four-year professional curriculum leading to the D.V.M. Degree, following a minimum two-year pre-veterinary program. The latter can be completed at Glendale College. The pre-veterinary program must include 60 units of course work with the following courses required: Chemistry 1-2, 3, 5 (Chemistry 6 recommended); Physics 5-6; Biology 1A-1B; English 2 or Speech 1-2 or Speech 3; and History 17-18. Biology 10 and 12 are recommended. Consult the General Catalog, University of California (Davis) for specific pre-veterinary requirements.

Wood Science and Technology

A major in Wood Science and Technology is offered in the curriculum of the School of Forestry, University of California at Berkeley. This major emphasizes the chemistry, physics, and anatomy of wood and provides educational preparation for careers related to the wood processing and wood utilizing industries of the nation. Students preparing for this major should take: Biology 1A; Chemistry 1, 2, 5, 6; Mathematics 3, 4, 5, 6; Physics 4A, 4B, 4C; and at least two courses from one of the following fields—anthropology, art, classics, comparative literature, English, history, philosophy, psychology, sociology, social science, or speech.
Course Descriptions

Courses are listed in numerical order under department headings, which are in alphabetical order. Some courses are of only one semester duration; hence only one number appears in front of the course title. Others continue for two or more semesters; these are designated by one of two methods. One is by a number-letter combination, e.g., Business 3A-3B; the other is by consecutive numbers, e.g., Business 21-22.

The credit of each course is indicated for each semester opposite the title of the course, e.g., 3 units. 3-3 units indicates that the course is a continuation course carrying units of credit for each semester of two consecutive semesters. Glendale College gives unit credit for each semester's work of continuing courses.

Whether or not all courses described will be offered during the present academic year will depend on the student enrollment.
ACCOUNTING—AEROSPACE TECHNOLOGIES

ACCOUNTING

PRINCIPLES OF ACCOUNTING
See Economics 13, 14.

BOOKKEEPING
See Business 21, 22.

BUSINESS DATA PROCESSING
See Business 23, 24, 25, 26.

AEROSPACE TECHNOLOGIES

1A—PRIVATE PILOT FLIGHT COURSE
2 UNITS
Prerequisite: Aerospace Technologies 10 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 Unified School 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.
1B—PRIVATE PILOT FLIGHT COURSE  2 UNITS

Prerequisite: Aerospace Technologies 10, 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 Unified School 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.

2A—COMMERCIAL PILOT FLIGHT COURSE  3 UNITS

Prerequisite: Aerospace Technologies 1A and 18 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 Unified School 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.

2B—COMMERCIAL PILOT FLIGHT COURSE  3 UNITS

Prerequisite: One hundred hours of flying time or completion of Aerospace Technologies 2A. Aerospace Technologies 11, 12, 13, 14, 19 taken prior to or concurrently or commercial written passed.

Note: Flight Training is contracted for by the student with any FAA approved flight school and conducted independently of the Glendale Unified School 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.

4—INSTRUMENT FLIGHT COURSE  3 UNITS

Prerequisite: Commercial Pilot’s License or Aerospace Technologies 2B.

Note: Flight training is contracted for by the student with any FAA approved flight school, and conducted independently of the Glendale Unified School 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 Instrument 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.
5—LINK TRAINER COURSE

Prerequisite: None.

An introduction to flight. A series of simulated flight experiences and problems in the Link Trainer. Students are individually scheduled for this training.

6—LINK TRAINER INSTRUCTOR COURSE

Prerequisite: Aerospace Technologies 5 or a Private Pilot’s License.

Students are trained in the teaching, use of, and repair of the Link Trainer. Also, they are given training in methods of teaching flight. Students are individually scheduled.

10—BASIC AERONAUTICS

Prerequisite: None.

Note: Students who have had Aerospace Technologies 9 will receive 3 units of credit only.

This is a course to prepare the student for the Private Pilot Written Examination, and is taught under FAA approved Basic and Advanced Ground 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.

11—NAVIGATION

Prerequisite: Aerospace Technologies 10 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.

12—METEOROLOGY

Prerequisite: Aerospace Technologies 10 or a Private Pilot’s License.

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.

13—AIRCRAFT STRUCTURE AND AERODYNAMICS

Prerequisite: Aerospace Technologies 10 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.

14—RADIO PROCEDURES AND FLIGHT REGULATIONS

Prerequisite: Aerospace Technologies 10 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.
16—RADIO NAVIGATION 3 UNITS
Prerequisite: Aerospace Technologies 11, 12, 13, 14, 19 taken prior to or concurrently; or a valid Commercial Pilot’s Certificate meets all prerequisites.
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.

19—AIRCRAFT POWER PLANTS 2 UNITS
Prerequisite: Aerospace Technologies 10 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.

20—COMMERCIAL PILOT PROBLEMS 2 UNITS
Prerequisite: Aerospace Technologies 11, 12, 13, 14, 19 taken prior to or concurrently; or a valid Commercial Pilot’s Certificate meets all prerequisites.
A core course designed to integrate all phases of the commercial pilot program in application to problems of the type a commercial pilot might expect to find in actual flight, i.e. being lost, low on fuel, bad weather, etc. Approved FAA Advanced Ground School No. WE-13-25.

21—AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL 16 UNITS
Prerequisite: None.
Note: Aerospace Technologies 21 consists of two nine-week classes, Aerospace Technologies 21A and Aerospace Technologies 21B.
The completion of Aerospace Technologies 21-22 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Agency Powerplant Rating.
The course content consists of practical application and theoretical study of powerplant overhaul procedures; precision inspections; lubrication systems; Federal Aviation Agency regulations; electrical systems, including magneto, generators, and starting systems.
The course content is based on standards required for FAA certificated schools. Approved FAA Mechanics School No. 3415.

21A—AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL 8 UNITS
Prerequisite: None.
The completion of Aerospace Technologies 21A, 21B, and 22 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Agency Powerplant Rating.
The course content of 21A consists of practical application and theoretical study of powerplant overhaul procedures; precision inspections; lubrication systems; Federal Aviation Agency regulations. The course content is based on standards required for FAA certificated schools. Approved FAA Mechanics School No. 3415.

21B—AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL 8 UNITS
Prerequisite: None.
The completion of Aerospace Technologies 21A, 21B, and 22 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Agency Powerplant Rating.
The course content of Aerospace Technologies 21B 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 Mechanics School No. 3415.

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22—AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL  16 UNITS

Prerequisite: Aerospace Technologies 21 or 21A and 21B.

The completion of Aerospace Technologies 21-22 qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Agency Powerplant Rating.

The course content consists of practical application and theoretical study of carburetion; including float, pressure, and injection systems.

25—AIRFRAME MAINTENANCE AND OVERHAUL  16-8 UNITS

Prerequisite: Aerospace Technologies 22 or a powerplant rating.

Note: It is strongly recommended that the student obtain both the airframe and powerplant ratings. All flight and flight line mechanics are required to have both certificates.

This course qualifies the student for industry employment as a maintenance and overhaul technician and prepares him practically and theoretically to successfully obtain the Federal Aviation Agency Airframe Rating.

The course content consists of practical applications and theoretical study of structural repairs to aircraft, including woodwork such as wooden rib and spar repair; dope and fabric; riveting; layout practices and repairs to metal structures; welding; electrical and hydraulic systems; Instrument and radio installation, 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 Mechanics School No. 3415.

37—JET ENGINE OVERHAUL AND MAINTENANCE  8 UNITS

Prerequisite: Aerospace Technologies 22 or the Federal Aeronautics 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.

40—THEORETICAL AIRCRAFT POWERPLANT MAINTENANCE  3 UNITS

Prerequisite: Six months full-time employment in the aviation industry engaged in repair, maintenance, or overhaul of aircraft reciprocating powerplants.

The course presents the theory of powerplant overhaul procedures, lubrication systems, Federal Aviation Agency Regulations, powerplant electrical systems including magnetos, generators, and starters.

Lecture 6 hours.

41—THEORETICAL AIRCRAFT POWERPLANT MAINTENANCE  3 UNITS

Prerequisite: Six months full time employment in the aviation industry engaged in repair, maintenance, or overhaul of aircraft reciprocating powerplants or completion of Aerospace Technologies 40.

The successful completion of Aerospace Technologies 40 and 41 will qualify the student with the theoretical background necessary to pass the Federal Aviation Agency written examination for the Powerplant Rating. The course content consists of practical application and theoretical study of carburetion; including float, pressure, and injection systems; propeller and governors, including wood, two position, constant speed and hydromatic type; weight and balance; systematic trouble shooting; FAA forms; inspections; and line maintenance.

Lecture 6 hours.
48—FLIGHT STEWARDESS  
Prerequisite: None.

Note: It is recommended that this course be taken prior to or concurrently with Aerospace Technologies 10.
This course will prepare the student for employment as a flight stewardess and will present the advantages and disadvantages of the job.
There is also a survey of the problems encountered by the new hostess both on the job and in training.
Lecture 3 hours.

49—AIR TRANSPORTATION  
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, or advertising, and of public relations stressed.

ANATOMY  
See Biology 20.

ANTHROPOLOGY  

2—GENERAL ANTHROPOLOGY—CULTURAL  
Prerequisite: A satisfactory score on the Reading and Language sub-test of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Studies the origin and development of cultures including material traits; social organization; political, religious, communication, family and kinship systems emphasizing contemporary primitives.

ARCHITECTURE  

1—DRAFTING  
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.

2—ARCHITECTURAL DRAFTING  
Prerequisite: Architecture 1 or one year of architectural drafting in high school. Precludes taking Architecture 1 for credit. May take Architecture 31 concurrently.

Note: A student may not receive credit for both Architecture 2 and Architecture 9.
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 and orientation, etc.
3—DESCRIPTIVE GEOMETRY 2 UNITS
Prerequisite: One semester of architectural or mechanical drawing in high school, Architecture 1, or Engineering 1 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.

5—PERSPECTIVE 3 UNITS
Prerequisite: Architecture 3 and Art 3A, and Art 5 and Art 6 (Art 6 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. Offered spring semester only.

9—ARCHITECTURAL DRAFTING 4 UNITS
Prerequisite: Art 3A, 5, and Architecture 1 or one year of architectural drafting in high school. (The college prerequisites may be taken concurrently.)

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. 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.

10—ARCHITECTURAL DRAFTING 4 UNITS
Prerequisite: Art 3A, 5, Architecture 9.

Further study of the residence, its planning and design with emphasis on the multi-story building. Discussion of modern trends. Drawing plans, elevations, details with emphasis on stairs. The application of current building codes. The study of dimensions and spacing of framing members. Modular framing and modern practice are discussed, including the cantilevered beam. Further study of heating, insulation, acoustics, plumbing, and electrical wiring. Lecture 4 hours, laboratory 4 hours.

11—ADVANCED ARCHITECTURAL DRAFTING 5 UNITS
Prerequisite: Architecture 10.

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.

12—ADVANCED ARCHITECTURAL DRAFTING 5 UNITS
Prerequisite: Architecture 11.

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.
91—ARCHITECTURAL ENGINEERING DRAFTING  7 UNITS

Prerequisite: Art 3A. (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 1 hour, laboratory 11 hours.

92—ARCHITECTURAL ENGINEERING DRAFTING (COMMERCIAL)  7 UNITS

Prerequisite: Architecture 91.

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 2 hours, laboratory 10 hours.

94—ARCHITECTURAL ENGINEERING DESIGN (COMMERCIAL)  7 UNITS

Prerequisite: Architecture 9 or 10 or Architecture 91. Recommended: Art 4, 6, 12, Technical Education 44 or Mathematics 2.

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 1 hour, laboratory 11 hours.

ART

1—HISTORY OF ART  3 UNITS

Prerequisite: None.

A survey and appreciation of the architecture, painting and sculpture from their origins in prehistoric times to the Early Medieval.

1B—ORIENTAL ART  3 UNITS

Prerequisite: None.

A survey of the sculpture, painting, and architecture of China, Japan, India, and late Persia, from prehistory to the present. An introduction to the philosophical ideas that influenced these trends.

Lecture 3 hours.

1C—HISTORY OF ART  3 UNITS

Prerequisite: Approval of the instructor.

The study of the architecture, painting, and sculpture from their origins in prehistoric times to the Gothic on the spot from first hand experience. The actual travel time abroad will take four weeks. Upon return there will be five hours of lecture for one week. Offered in Summer Session only.

Lecture 5 hours, laboratory 222 hours (8 hours a day for 4 weeks).
2—HISTORY OF ART 3 UNITS

Prerequisite: None.
A survey and appreciation of the architecture, painting and sculpture from the Early Medieval period to the 19th Century. An introduction to the philosophical, economical and political ideas that influenced those trends. Lecture 3 hours.

2B—CONTEMPORARY ART 3 UNITS

Prerequisite: None.
A survey of the growth of contemporary trends in painting, sculpture, architecture and the minor arts in Europe and the United States from their immediate origins to the present.

3A—ART STRUCTURE 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.

3B—ART STRUCTURE (ADVANCED) 2 UNITS

Prerequisite: Art 3A.
Advanced study of two-dimensional design for both Fine Arts and Applied Design students. Emphasis on experimental handling of various art media. Advanced concepts of structure and use of the elements and principles of design. (Required for art majors.)

4—ADVANCED ART STRUCTURE 2 UNITS

Prerequisite: Art 3A.
Note: Offered spring semester only. (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.

5—FREEHAND DRAWING 2 UNITS

Prerequisite: None.
A basic drawing course dealing with the fundamentals of pictorial organization. The various means of representing the three-dimensional aspect of forms on a flat surface are emphasized. Lecture 4 hours.

6—FREEHAND DRAWING 2 UNITS

Prerequisite: Art 5.
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.

7—LIFE DRAWING 2 UNITS

Prerequisite: Art 5. (Art 5 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.
8—LIFE DRAWING
Prerequisite: Art 7.
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.

9—ADVANCED LIFE DRAWING
Prerequisite: Art 8.
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.

10—ADVANCED LIFE DRAWING
Prerequisite: Art 9.
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.
11—WATER COLOR
Prerequisite: Art 3A and 5. 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 landscape, still life, and figure painting. Outdoor painting trips are used to help gain experience and skill in landscape painting.

12—WATER COLOR
Prerequisite: Art 11.
A continuation of the study of water color painting in 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.

14—SCULPTURE
Prerequisite: Art 3A or 5 (may be taken concurrently).
Recommended for art, predental, 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.

15—DRAWING AND PAINTING
Prerequisite: Art 5. (Art 5 may be taken concurrently.)
Development of skill, technique, and composition in drawing and painting, using mediums such as oils or casein. Problems include representation and abstraction.

16—DRAWING AND PAINTING
Prerequisite: Art 15.
Application of principles, theories and techniques of drawing and painting to problems of still life, figure, landscape, and nonobjective painting.

17—ADVANCED DRAWING AND PAINTING
Prerequisite: Art 16, Art 6.
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.

18—ADVANCED DRAWING AND PAINTING
Prerequisite: Art 17.
A continuation of Art 17.
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.
23—SILK SCREEN PRINTING
Prerequisite: Art 3A.
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.

24—SILK SCREEN PRINTING
Prerequisite: Art 23.
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.

25—PRINTMAKING
Prerequisite: Art 3A or Art 5.
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 mediums are explored.
Lecture 2 hours, laboratory 2 hours.

29—INTERIOR DESIGN
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.

34—LETTERING
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.

35—ADVERTISING DESIGN
Prerequisite: Art 3A and Art 5. (Art 3A and 5 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.

36—ADVERTISING DESIGN
Prerequisite: Art 35, and any one of the following which may be taken concurrently: Art 3B, 4, 6, 7, 11, 15, 34.
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.

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37—ADVANCED ADVERTISING DESIGN 2 UNITS
Prerequisite: Art 36.
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.

38—ADVANCED ADVERTISING DESIGN 2 UNITS
Prerequisite: Art 37.
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.

39—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.

40—CERAMICS 2 UNITS
Prerequisite: Art 39.
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.

41—ADVANCED CERAMICS 2 UNITS
Prerequisite: Art 40.
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.

42—ADVANCED CERAMICS 2 UNITS
Prerequisite: Art 41.
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.

47—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, and the use of the Lost Wax Casting techniques. Emphasis is placed on learning to design original pieces.

48—JEWELRY MAKING 2 UNITS
Prerequisite: Art 47.
Art 48 places emphasis in the art of faceting, both in the cutting of stones and the designing of jewelry for faceted stones. The continuing studies of gem identification; precision investment casting.
49—ADVANCED JEWELRY MAKING  2 UNITS

Prerequisite: Art 48.
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.

50—ADVANCED JEWELRY MAKING  2 UNITS

Prerequisite: Art 49.
Note: Course offered in Extended Day only.
Advanced studies and designing in facet cutting; casting; handwrought and wax pattern duplication.

51—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.

52—ADVANCED DENTAL MATERIALS  2 UNITS

Prerequisite: Art 51.
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 and the University of California Entrance Test.

INTERIOR DESIGN

See Art 29.

ASTRONOMY

1—ELEMENTS OF ASTRONOMY  3 UNITS

Prerequisite: None.
An introductory, descriptive course in the fundamental facts of the universe, presented as far as possible in nontechnical language. A study is made of the solar system and the sidereal universe.

BIOLOGY

1A—GENERAL BIOLOGY  4 UNITS

Prerequisite: High school chemistry or Chemistry 10 or Chemistry 1. Chemistry 10 or Chemistry 1 may be taken concurrently.
The first half of a course 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.
1B—GENERAL BIOLOGY 4 UNITS
Prerequisite: Biology 1A.
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.

10—BOTANY 5 UNITS
Prerequisite: High school chemistry or Chemistry 10 or Chemistry 1. Chemistry 10 or Chemistry 1 may be taken concurrently.
A study of the representatives of the plant kingdom from the more primitive forms through the flowering plants; the physiology of cells and the structure of tissues; the mechanism of inheritance; and the evolution of the major plant groups.
Lecture 3 hours, laboratory 6 hours.

12—MICROBIOLOGY 5 UNITS
Prerequisite: Biology 1A-1B, or Biology 20 or 21.
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.

13—INVERTEBRATE ZOOLOGY 4 UNITS
Prerequisite: High school chemistry or chemistry 10 or chemistry 1. Chemistry 10 or chemistry 1 may be taken concurrently. Biology 1A 1B.
A study of selected topics in invertebrate zoology, to include: classification, phylogeny, structure, function, distribution, behavior and ecolohy.
Lecture 2 hours, laboratory 6 hours.

14—VERTEBRATE ZOOLOGY 4 UNITS
Prerequisite: High school chemistry or chemistry 10 or chemistry 1. Chemistry 10 or chemistry 1 may be taken concurrently.
A study of selected topics and vertebrate zoology, to include: classification, chordate phylogeny, organ system development and structure and function, zoogeography, behavior and ecology.
Lecture 2 hours, laboratory 3 hours.

20—HUMAN ANATOMY 4 UNITS
Prerequisite: None.
Note: Primarily for physical education and nursing students.
Study of human structure. Use is made of charts, films, plastic models and skeletons. There is a complete dissection of a mammal, with additional study of a shark head and a sheep brain.
Lecture 2 hours, laboratory 6 hours.

21—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.
22—INTRODUCTORY 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 student majoring in fields other than the biological sciences.
Lecture 3 hours, laboratory 3 hours.

30—NATURAL HISTORY  3 UNITS
Prerequisite: None.
Note: A course in either high school or college biology is recommended. Natural History is a course designed to introduce the student to the study of California wild-life. The course consists of an introduction to the principles of natural history and field biology. Stress is put on the Southern California terrestrial and tide-pool habitats.
Lecture 2 hours, laboratory 3 hours.

37—FIELD BOTANY  4 UNITS
Prerequisite: None.
A study of the plants and the plant communities of the Southern California foothills, mountains, desert, and seashore.
Lecture 3 hours, laboratory 3 hours.

38—ORNAMENTAL HORTICULTURE  4 UNITS
Prerequisite: None.
A study of the principles of horticulture; characteristics, growth, nutrition, propagation, and use of ornamental plant materials, turf, and native plants; and the control of insect pests and diseases.
Lecture 3 hours, laboratory 3 hours.

BOTANY
See Biology 10, 37.

BUSINESS

ACCOUNTING
See Economics 13, 14.

LAW
See Law 17, 18, 31.

MATHEMATICS
See Mathematics 10, 12, 14.

REAL ESTATE
See Real Estate 1, 3, 5, 7, 9, 11.

SUPERVISORY TRAINING
See Supervisory Training 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
1A—BEGINNING TYPING

Prerequisite: None.

The basic skills of keyboard techniques are developed to give the foundation for advanced training in typing and the skill for personal use. Training is given in the preparation of memorandums, personal letters, business letters, and simple tabulations, outlines and manuscripts.

Lecture, demonstration, and laboratory 5 hours.

1B—INTERMEDIATE TYPING

Prerequisite: Business 1A or a speed of at least 30 words a minute.

Continuation of Business 1A. 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.

1C—ADVANCED TYPING

Prerequisite: Business 1B or a speed of at least 40 words a minute.

Advanced typing is vocational, and the standards are set in terms of business demands. A complete review of business communications and forms is given. Introduction to legal typing, accounting reports, and typing master copies for duplication are covered.

Lecture, demonstration, and laboratory 3 hours.
1D—ADVANCED TYPING 2 UNITS
Prerequisite: Business 1C or a speed of at least 50 words a minute.

Continuation of Business 1C. This course is designed for those students who wish to develop their skill to the expert level. Emphasis is placed upon the development of judgment in planning a variety of typing projects for an executive. Advanced study of legal forms and tabulation problems are covered.

Lecture, demonstration, and laboratory 3 hours.

3A—BEGINNING SHORTHAND 5 UNITS
Prerequisite: One of the following: (a) A satisfactory grade on the English Placement Test and the Language sub-test of the Pre-registration Examination, or (b) An average grade of "B" in high school English, or (c) A "C" in Business 15 or English 1 or English 21; and one of the following: (a) Concurrent enrollment in typing, or (b) completion of Business 1D, or consent of instructor.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently. This course may not be taken for credit by students who have completed one year of shorthand in high school with a grade of "C" or better within the past two years.

An intensive course in shorthand covering theory and transcription. Fundamentals of shorthand are mastered and a minimum of 60 words a minute is developed in taking dictation.

Lecture, discussion, demonstration, and laboratory 5 hours.

3B—INTERMEDIATE SHORTHAND 5 UNITS
Prerequisite: One of the following: (a) Business 3A, or (b) One year of shorthand in high school with the ability to take dictation at the rate of 60 words a minute for five minutes; one of the following: (a) Concurrent enrollment in typing, or completion of Business 1D, or (c) consent of instructor; and one of the following: (a) completion of Business 5A, or concurrent enrollment in Business 5A, or full-time general office or clerical experience.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently.

Continuation of Business 3A. Dictation, transcription, and a review of theory. A minimum skill of 80 words a minute in taking dictation is developed.

Lecture, discussion, demonstration, and laboratory 5 hours.

3C—ADVANCED SHORTHAND 4 UNITS
Prerequisite: Business 3B or two years of shorthand in high school with the ability to take dictation at the rate of 80 words a minute for five minutes; concurrent enrollment in Business 1C or 1D, or completion of Business 1D; and completion of or concurrent enrollment in Business 5A, or full-time general office or clerical experience.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently.

Continuation of Business 3B. This course is designed to train stenographers to meet the demands of the business world. Emphasis is placed on mailable transcripts and a minimum skill of 100 words a minute in taking dictation is developed.

Lecture, discussion, demonstration, and laboratory 5 hours.
3D—SECRETARIAL PROCEDURES 4 UNITS
Prerequisite: Business 3C (may be taken concurrently); concurrent enrollment in Business 1C or 1D, or completion of Business 1D, and completion of Business 5A, or full-time general office or clerical experience.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently.

This is a finishing course for the secretary, emphasizing the secretarial profession, personal qualifications and attitudes, taking shorthand dictation in the office and the transcription process, organizing and planning the working day, the secretary's communications, preparation of effective reports, an executive secretary's typical day, and job selection. This terminal course provides speed development with major emphasis on office-style dictation and transcribing skills.

Lecture, discussion, demonstration, and laboratory 5 hours.

3L—LEGAL SECRETARIAL TRAINING 4 UNITS
Prerequisite: Ability to take shorthand dictation at the rate of 100 words a minute or at the rate of 80 words a minute with concurrent enrollment in Business 3C; and ability to type at the rate of 60 words a minute.

A course offering specialized training in legal phraseology; spelling; specific training in the preparation of legal documents; office routine and methods; other legal procedure information.

Lecture, discussion, demonstration, and laboratory 5 hours.

3L1-3L2—LEGAL SECRETARIAL TRAINING 2-2 UNITS
Prerequisite for Business 3L1: Ability to take shorthand dictation at the rate of 100 words a minute or at the rate of 80 words a minute with concurrent enrollment in Business 3C; and ability to type at the rate of 60 words a minute.

Prerequisite for Business 3L2: Business 3L1.

A course offering specialized training in legal phraseology; spelling; specific training in the preparation of legal documents; office routine and methods; other legal procedure information.

Lecture, discussion, demonstration, and laboratory 5 hours.

3M-3N—MEDICAL TERMINOLOGY AND DICTATION 3 UNITS
Prerequisite: Ability to take Gregg shorthand at 80 words a minute and to type at the rate of 50 words a minute.

A course to provide a working knowledge of the requirements of a medical secretary. A study of medical terminology and a brief study of anatomy, physiology, and diseases and abnormalities of each anatomical system as they relate to the needs of a medical secretary.

Lecture 3 hours.

5A—OFFICE ORIENTATION 3 UNITS
Prerequisite: A typing speed of at least 30 words a minute; if not 50 words a minute, typing must be taken concurrently.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently.

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, discussion, and demonstration 3 hours.
BUSINESS

5C—BUSINESS MACHINES 2 UNITS

Prerequisite: None.

Note: Recommended for all business majors.

Development of skill in the operation of various office computing machines, including the rotary and key-driven calculators, ten-key adding machines and printing calculator. Prepares transferring accounting students to take machine proficiency test required at some four-year institutions.

Lecture, demonstration, discussion, and laboratory 3 hours.

7—STENO-CLERICAL PROCEDURES 1 UNIT

Prerequisite: A typing speed of at least 40 words a minute; if not 50 words a minute, typing must be taken concurrently.

Note: Business 15, English 21, or English 1 should precede or be taken concurrently.

Development of proficiency in the operation of the magnetic belt transcriber, mimeograph and spirit duplicators and photocopier; intensive training in filing and records management. Emphasis is placed upon competence in essential office skills and the development of related judgments.

Demonstration and laboratory 2 hours.

11—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.

15—ENGLISH FOR BUSINESS 3 UNITS

Prerequisite: None.

Note: This course allows only one unit of credit for students who have completed English 41, and two units of credit for students having completed English 32. No credit will be given for students who have had English 1, 21 or 31.

A course designed to help secretarial and business students achieve proficiency in grammar, punctuation, vocabulary, syllabication, and sentence structure.

Lecture and discussion 3 hours.

16—WRITING IN BUSINESS 3 UNITS

Prerequisite: Business 15 or English 1 or English 21.

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.

Lecture and discussion 3 hours.
21—BOOKKEEPING
Prerequisite: None.
Note: Students shall be transferred to Economics 13 upon the approval of the division chairman.
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 profit and loss statements.
Lecture 4 hours, laboratory 1 hour.

22—BOOKKEEPING
Prerequisite: Business 21 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.

23—INTRODUCTION TO BUSINESS DATA PROCESSING
Prerequisite: None.
Business 21 or Economics 13 recommended.
A basic introduction to automatic business data processing. Covers the history and development of data processing, features of data processing equipment, punched card data processing, numbering systems, computer programming principles, and systems analysis.
Lecture 3 hours.

24—DATA PROCESSING MACHINES
Prerequisite: Business 23 (may be taken concurrently).
Business 21 or Economics 13 recommended.
Basic operation and control of data processing machines other than electronic digital computers. The machines include IBM card punch, verifier, sorter, interpreter, collator, reproducer, and accounting machine. Actual experience is provided on the equipment through practical exercises which are typical of those performed in existing punched card processing installations. Emphasis is placed on actual control panel wiring.
Lecture 3 hours, laboratory 3 hours.

25—COMPUTER PROGRAMMING I
Prerequisite: Business 23 (equivalent work experience in data processing may be substituted for Business 23).
A basic course in the programming of electronic digital computers for those who plan to be programmers or those whose work may be related to computer applications in business and industry. The course covers problems of data processing, characteristics of computers, and computer programming in machine, symbolic, and computer languages. Laboratory experience is provided on the IBM 1620 electronic digital computer.
Lecture 3 hours, laboratory 2 hours.

26—DATA PROCESSING SYSTEMS
Prerequisite: Business 23, 24, 25.
Business 21-22 (or Economics 13-14) and Mathematics 10 are recommended.
Study of data processing systems and procedures including analysis of
various existing data processing applications in business and industry, integrated processing principles, total management information, and data systems concepts. Case study projects developing detailed data processing procedures are stressed.
Lecture 3 hours.

29—BUSINESS MATHEMATICS
Prerequisite: None.
An intensive course in the fundamentals of arithmetic designed for merchandising, secretarial, clerical, and accounting students. Practical problems are assigned to develop speed, accuracy, and a knowledge of possible short cuts. Attention is given to calculations in billing, mark-up, pricing, percentage, turnover of inventory, payrolls, interest, discounts, installment selling, stocks, bonds, insurance, and annuities.
Lecture, discussion, and laboratory 2 hours.

31—PRINCIPLES OF MARKETING
Prerequisite: None.
A general course intended to acquaint students with the activities, the middlemen, and the business practices involved in the moving of goods from farms, factories, and mines to the ultimate consumers. The course deals with the problems of wholesalers, retailers, transportation companies, warehouses, and cooperatives. Consumer protection, analysis of marketing costs, and the establishment of sound sales policies and methods are emphasized.
Lecture and discussion 3 hours.

32—STORE MANAGEMENT AND MERCHANDISING
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. Students are required to interview a local merchant and make a report.
Lecture 3 hours.

33—SALESMANSHIP
Prerequisite: None.
A salesmanship class in which each student selects an article or sales proposition, makes a careful study of it, and presents it before the class or to a qualified prospect. His methods of approaching the prospect, demonstrating his goods, and closing his sales are discussed and criticized. Successful salesmen are invited to give demonstrations of how sales actually are made. Fundamental principles of retail, wholesale and specialty selling are given in sufficient detail to fit the student for an apprenticeship position in any of these fields, whether it be selling ideas, services, or goods.
Lecture 2 hours.

34—ADVERTISING
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.

39—INSURANCE PRINCIPLES
Prerequisite: None.
A course designed to acquaint the student with insurance of various types, such as personal liability, sickness, accidental injury, unemployment, workmen's compensation, death, fire, and other property hazards. Policies are analyzed to understand costs in relation to benefits provided, losses excluded, and obligations of both parties. Insurance is studied from the standpoint of (1) the businessman, (2) the insurance company, (3) the broker or agent, and (4) the state.
Lecture, discussion, films, and speakers, 3 hours.

41—MONEY AND BANKING
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. The study of the American monetary system and of the history of American financial institutions provides much of the vocational background. Lectures, class discussions, problems, and reports.
Lecture, discussion problems and reports, 2 hours.

42—INVESTMENTS
Prerequisite: None.
A course designed to acquaint the students with sources of capital, types of securities, and the operation of brokerage and investment banking houses. Objectives of the course are the understanding of investment principles and the acquisition of the skills needed for a salesman or clerical worker to succeed in the securities business.
Lecture, discussion, problems, and reports, 2 hours.

45—PERSONAL FINANCE
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.

Carpentry

21—CARPENTRY
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.
This course includes general introduction to the carpenter trade including
blueprint reading, foundations, building layout, building code and laws, rough hardware and material listing.
The practical work of this course includes the instruction and use of both hand and power tools in the construction of various projects and buildings. In most all cases, full credit toward the apprenticeship training is given those students who complete this course.

22—CARPENTRY  8 UNITS
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.
Included in this section of the trade is wall and roof framing, steel square usage, exterior finish including doors and windows, porches, roof coverings, blueprint reading, building codes and material listing.
The practical work of this course includes the instruction and use of both hand and power tools in the construction of various projects and buildings. In most all cases, full credit toward the apprenticeship training is given those students who complete this course.

23—CARPENTRY  8 UNITS
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.
This section of the course includes interior finish, fitting and hanging doors, cabinets, finish hardware, floors, stair layout, blueprint reading, material listing.
The practical work of this course includes the instruction and use of both hand and power tools in the construction of various projects and buildings. In most all cases, full credit toward the apprenticeship training is given those students who complete this course.

24—CARPENTRY  8 UNITS
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.
Cost estimating, material listing, contractor requirements and responsibilities, and quantity take-off of materials from blueprints as well as a general review are included in this section of the course.
The practical work of this course includes the instruction and use of both hand and power tools in the construction of various projects and buildings. In most all cases full credit toward the apprenticeship training is given those students who complete this course.

50—CARPENTRY APPRENTICE TRAINING  (SEE NOTE)
Prerequisite: Employment as an indenture apprentice.
Note: Students may earn 3 units during the semester when this class is offered three hours per week, or 6 units when it is offered for six hours per week. A maximum of 24 units of credit will be allowed for Carpentry 50.
A four-year course designed to provide related instruction for indentured apprentices in the carpentry trade. The course includes carpentry mathematics, blueprint reading, basic building code requirements, foundation and frame construction, framing, roof framing, exterior covering and finishing, interior finish, stair building, reinforced concrete construction, heavy timber construction, safety, employer-employee relations and building contractor’s requirements and responsibilities.
51—WOODWORK

Prerequisite: None.

Note: A maximum of 6 units of credit will be allowed for Carpentry 51. The course includes basic hand tool skills, the operation of woodworking machinery, blueprint reading, and material listing. Workmanship, construction and design are emphasized. The course will also offer opportunity to review skills and related knowledge previously acquired in various phases of woodworking, and cabinet making. Projects shall be selected by enrollees.

CHEMISTRY

1—GENERAL CHEMISTRY

Prerequisite: An introductory college chemistry course or high school chemistry or Science 31; Mathematics 1 or one and one-half years of algebra and one year of plane geometry in high school; and a satisfactory grade on the Chemistry Placement Examination. Completion in the previous semester or summer session of Chemistry 10 with a grade of "C" or better or Science 31 with a grade of "B" or better may be substituted for the Chemistry Placement Examination.

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.

2—CHEMISTRY

Prerequisite: Chemistry 1.

A continuation of the study of the basic concepts of general chemistry introduced in Chemistry 1, with emphasis on the theory and technique of qualitative analysis; including a brief introduction to organic chemistry.

Lecture 3 hours, laboratory 6 hours.

3—QUANTITATIVE ANALYSIS

Prerequisite: Chemistry 2.

Note: Chemistry 3 is required of pre-medical students. Chemistry 3 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.

5—ORGANIC CHEMISTRY

Prerequisite: Chemistry 2.

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 2 hours, laboratory 6 hours.
6—ORGANIC CHEMISTRY

Prerequisite: Chemistry 5.

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 2 hours, laboratory 4 hours.

10—ELEMENTS OF GENERAL CHEMISTRY

Prerequisite: Mathematics 41 or one year of algebra in high school and Mathematics 40 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.
41—INTRODUCTION TO CHEMISTRY  
Prerequisite: None.

Note: Recommended as a foundation course for either Chemistry 10 or Chemistry 1. A modified form of this course is offered in the Extended Day Program for 3 units of credit.

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.

43—INTRODUCTION TO CHEMISTRY  
Prerequisite: None.

Note: Recommended as a foundation course for either Chemistry 10 or Chemistry 1. 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.

DRAFTING

29—FUNDAMENTALS OF DRAFTING FOR TECHNICIANS  
Prerequisite: None.

Note: A recommended course for drafting students. No credit is allowed for this course to students having credit in Engineering 1, 3, 4; Drafting 31, 32, 33, 34; Technical Illustration 65, 66, 67, 68.

A study of the fundamentals of orthographic drawing to develop in the student the ability to visualize objects and obtain information pertaining to them from blueprints. Such areas as size description, shape description, vocabulary of terms, descriptive terminology used on drawings, reproduction processes, mechanical and freehand sketching are covered.

31—TECHNICAL DRAFTING  
Prerequisite: Technical Education 43 or Technical Education 44 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, lettering, geometry used in 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.

32—INTERMEDIATE TECHNICAL DRAFTING AND MACHINE DETAILING  
Prerequisite: Drafting 31 or Technical Illustration 65. Technical Education 44 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.

33—ELECTRICAL DRAWING AND ELECTRONIC PACKAGING  7 UNITS
Prerequisite: Drafting 31, Technical Education 45, 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.

34—ADVANCED DRAFTING IN MACHINE DESIGN  7 UNITS
Prerequisite: Drafting 33 and concurrent enrollment in one of the following Metals 15, Welding 17, Technical Education 46 or Electronics 75.
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, frictions drives, bevel gears, bearings, and machine design project.

35—ADVANCED ELECTRONICS DRAFTING AND DESIGN  7 UNITS
Prerequisite: Drafting 33 and concurrent enrollment in one of the following: Metals 15, Welding 17, Technical Education 46 or Electronics 75.
Note: Students must register for the full number of hours for which the course is scheduled.
A course designed to give the student training in printed circuit drawings which meet military (government) standards and specifications. From schematic drawings, to design models of miniature electronic components and to lay out the drawings to meet professional design standards.
Lecture 5 hours, laboratory 7 hours.

36A—BASIC TECHNICAL DRAFTING  3 UNITS
Prerequisite: None.
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.
Laboratory 6 hours.

36B—TECHNICAL DRAFTING  3 UNITS
Prerequisite: Drafting 36A.
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.
37A—TECHNICAL DRAFTING 3 UNITS
Prerequisite: Drafting 36B.
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 12 hours.

37B—ADVANCED TECHNICAL DRAFTING 3 UNITS
Prerequisite: Drafting 37A.
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 5 hours, laboratory 7 hours.

38—ELECTRONIC DRAFTING 3 UNITS
Prerequisite: Electronics 75 and one year of drafting in high school or drafting in
college.
Basic electrical and electronics drafting theory and practice of basic elec-
trical-electronic drafting techniques and procedures; related information for
drawing and interpreting drawings and pictorial presentations. Stresses fun-
damentals through printed circuit board design.

ECONOMICS

1—PRINCIPLES OF ECONOMICS 3 UNITS
Prerequisite: Second semester standing.
An introductory course dealing with the fundamental principles of economics.
The first semester emphasizes the micro or price and market approach. The
second semester emphasizes the macro approach and covers such topics as
banking, international trade, taxation and fiscal policy and business cycles.

2—PRINCIPLES OF ECONOMICS 3 UNITS
Prerequisite: Economics 1.
An introductory course dealing with the fundamental principles of economics.
The first semester emphasizes the micro or price and market approach. The
second semester emphasizes the macro approach and covers such topics as
banking, international trade, taxation and fiscal policy and business cycles.

7—PROBABILITY AND STATISTICS 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the
Pre-registration Examination, or a "C" average in high school or college social
science classes.
An introduction to the areas of probability and statistics. A consideration of
the methods of gathering, classifying, and analyzing statistical data.
11—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 "C" average in high school or college social science classes.

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.

13—PRINCIPLES OF ACCOUNTING  4 UNITS
Prerequisite: None.

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, and tax accounting.
Lecture and laboratory 5 hours.

14—PRINCIPLES OF ACCOUNTING  4 UNITS
Prerequisite: Economics 13.

A continuation of Economics 13 which deals with partnership and corporation accounts, manufacturing and cost accounting and supplementary statements.
Lecture and laboratory 5 hours.

EDUCATION

1—INTRODUCTION TO EDUCATION  2 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.

ELECTRONICS

71—BASIC ELECTRONICS I  7 UNITS
Prerequisite: Technical Education 43 or Technical Education 44 must 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 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 DC and AC instruments.
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.
72—BASIC ELECTRONICS II
Prerequisite: Electronics 71 and concurrent enrollment in Technical Education 44 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.

Advanced study and analysis of DC and AC circuits with emphasis on practical circuit application.

Principles of vacuum tubes, AF and RF vacuum tube amplifiers, power supplies, oscillators, introduction to transistors.

Lab experiments with vacuum tubes, transistors, amplifiers, oscillators and power supplies. Use of signal generators, oscilloscopes and other test instruments.

73—ADVANCED ELECTRONICS
Prerequisite: Electronics 72, and concurrent enrollment in one of the following: Metals 15, Drafting 29, 38, Technical Education 45 or 46.

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 and application of transistors and other semi-conductor devices. Transistors used as oscillators, AF and RF amplifiers, pulse amplifiers, etc.

Vacuum tube and transistor TRF and superhet theory.

Laboratory experiments for checking transistor parameters and behavior, and superhet circuits.

74—ADVANCED ELECTRONICS
Prerequisite: Electronics 73, and concurrent enrollment in one of the following: Metals 15, Drafting 29, 38, Technical Education 45 or 46.

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, pulse circuits, integrating and differentiating circuits, computer logic circuits.

Lab includes troubleshooting, test instrument use and maintenance, and experiments with special circuits.

75—BASIC ELECTRONIC THEORY I
Prerequisite: None.

Note: Reduced credit if Electronics 71 is taken prior to or subsequent to Electronics 75-76.

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.

76—BASIC ELECTRONIC THEORY II
Prerequisite: Electronics 75.

Note: Reduced credit if Electronics 71 taken prior to or subsequent to Electronics 75-76.

Continuation of Electronics 75. Principles of vacuum tubes, AF and RF vacuum tube amplifiers, power supplies, oscillators, and introduction to transistors.
ELECTRONICS

77—BASIC ELECTRONICS I* 3 UNITS
Prerequisite: Satisfactory score on Mathematics Proficiency Test or credit in Mathematics 50.

A basic electronics course covering theory and mathematical applications of DC circuits, Ohm's Law, series circuits, parallel circuits, electrical power, Kirchhoff's Laws, efficiency, and DC meters. Laboratory meetings are included.

This class is offered in the Extended Day Program only.

78—BASIC ELECTRONICS II* 3 UNITS
Prerequisite: Electronics 77 or equivalent.

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.

79—BASIC ELECTRONICS III* 3 UNITS
Prerequisite: Electronics 78 or equivalent.

AC circuits, series and parallel circuits containing R, C, & L. Real and apparent power, power factor, series and parallel resonance, filters, electron tubes, electron tube amplifiers, transistor fundamentals, simple transistor amplifiers. Laboratory exercises in AC circuits, resonance, thermistors, vacuum tubes, amplifiers, vacuum tube biasing, transistor characteristics, basic transistor circuits.

This class is offered in the Extended Day Program only.

80—BASIC ELECTRONICS IV* 3 UNITS
Prerequisite: Electronics 79 or equivalent.

RF losses, vacuum tube and transistor AF and RF circuits, vacuum tube and transistor oscillators, power supplies. Lab exercises in vacuum tube amplifiers, phase inverters, oscillators, and rectifiers, transistor amplifiers, phase inverters and oscillators.

This class is offered in the Extended Day Program only.

81—ADVANCED ELECTRONICS V 3 UNITS
Prerequisite: Electronics 80 or equivalent.

A comprehensive electronics course in the application of the theories of basic electronics learned in earlier classes. This course covers the major applications of electronics for technicians and servicemen in equipment such as radio receivers, public address systems, radio transmitters and the related components for these equipments, antennas and transmission lines, special circuits used in military electronics and industry, and test instruments used in testing components in the above applications.

This class is offered in the Extended Day Program only.

82—ADVANCED ELECTRONICS VI 3 UNITS
Prerequisite: Electronics 80 or equivalent.

Students must have a basic knowledge of electronics and equipment circuitry and are required to furnish certain parts for laboratory experiments in the

*Note: Students having had Electronics 71 will receive no credit for Electronics 78 and only one unit for Electronics 79. Students having had Electronics 72 should not register for Electronics 78, 79, or 80 for credit.
operation of and application of transistors in electronics circuits. A comprehensive course on transistors for electronic technicians and for those who need to gain a working knowledge of transistors and transistor circuits. Modern electron theory, transistor characteristics, applications in amplifiers, oscillators and other circuits in radio, television, etc. This class is offered in the Extended Day Program only.

ENGINEERING

1—ENGINEERING DRAWING  
3 UNITS
Prerequisite: None.
Training in the manipulation of instruments, lettering, orthographic projection, sketching, drawing auxiliary and pictorial views, sectioning and dimensioning.

3—DESCRIPTIVE GEOMETRY  
2 UNITS
Prerequisite: Engineering 1 or Drafting 31 or Technical Illustration 65 or Architecture 1, or one year of mechanical drawing in high school.
Note: This course may not be taken for credit by students who have completed Architecture 3.
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.

4—ADVANCED ENGINEERING DRAWING  
3 UNITS
Prerequisite: Engineering 1 or Drafting 31 or one year of mechanical drawing in high school.
Note: Engineering students should take Engineering 3 prior to Engineering 4.
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.

8—PROPERTIES OF ENGINEERING MATERIALS  
2 UNITS
Prerequisite: Chemistry 2 (may be taken concurrently), Physics 4A, and Mathematics 4.
A study of the fundamental structural, thermodynamic, and quantum considerations underlying the properties of materials, with accent on crystal structure, phase rule, phase diagram, and alloy systems, of ferrous and non-ferrous metals, and engineering properties of organic and inorganic compounds. Applications of basic principles to the evaluation, selection, and use of engineering materials.

10—STATICS  
3 UNITS
Prerequisite: Physics 4A-4B and Mathematics 5. (Physics 4B and Mathematics 5 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.
11—PLANE SURVEYING 3 UNITS
Prerequisite: Mathematics 2 or trigonometry in high school and Engineering 1 or mechanical drawing in high school.

A course in the fundamentals of surveying for all students of engineering. The measurements of distances by pacing, chaining, and the stadia; the use and adjustment of Wye and Dumpy levels in differential and profile leveling; the adjustment of the transit and its use in the measurement of angles in vertical and horizontal planes, and in the closed traverse. The computation and layout of horizontal curves, solar observation for azimuth, and office computations for the closed traverse. Topographical mapping; by means of the stadia, using transit and plane table.
Lecture 2 hours, laboratory and field work, 3 hours.

41—ENGINEERING COMPUTATIONS 1 UNIT
Prerequisite: Mathematics 2 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 42.

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.

42—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 41.
Lectures and instruction in the use of the slide rule. Estimating, checking, and solving problems in computation will be required of the student.

ENGLISH

1—FRESHMAN ENGLISH 3 UNITS
Prerequisite: A satisfactory grade in the English Placement Examination; or a grade of “B” or better in English 41; or a grade of “C” or better in English 21.

A foundation course in writing and reading, required of those students intending to transfer to a university. English 1 provides instruction and practice in expository writing, analysis and criticism of selected prose models.

2—FRESHMAN ENGLISH 3 UNITS
Prerequisite: English 1.

English 2 is an introduction to literature. It continues practice in writing, related to the study and evaluation of types of imaginative literature, including the short story, novel, drama and poetry.

5—SURVEY OF ENGLISH LITERATURE FROM THE ANGLO-SAXON PERIOD TO 1780 3 UNITS
Prerequisite: English 2.

Note: Required of all English majors. Open to all who have completed English 2.

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.
6—SURVEY OF ENGLISH LITERATURE FROM 1780 TO THE PRESENT TIME 3 UNITS
Prerequisite: English 2.

Note: Required of all English majors. Open to all who have completed English 2. English 6 may be taken without English 5.

A survey course covering the development of English literature from 1780 to the present time. English 6 continues to study the development of thought as an expression of our cultural heritage.

7—INTERMEDIATE COMPOSITION 2 UNITS
Prerequisite: English 2.

A course in composition with emphasis on developing effectiveness in expository writing.
Lecture 2 hours.

19—INTRODUCTION TO WORLD LITERATURE 3 UNITS
Prerequisite: English 2.

A study of literature in translation from early Palestine to the literature of the Renaissance. Emphasis is placed on the Greek and Roman classics. Extensive readings, class discussion and lectures.
Lecture 3 hours.

20—INTRODUCTION TO WORLD LITERATURE 3 UNITS
Prerequisite: English 2.

A survey of world literature since the beginning of the Renaissance presented from the standpoint of cultural history and correlated with materials from the history of ideas. The central purpose is to emphasize the importance of literature in reflecting man’s ideas and in introducing the student to some of the great books outside of English literature.
Lecture 3 hours.

21—COMPOSITION AND READING 3 UNITS
Prerequisite: A satisfactory score on the English Placement Examination, or a grade of “C” or better in English 41.

Note: This course allows no credit to those who have completed English 1. This course is designed for the students who is aiming toward an Associate in Arts degree or who needs additional instruction in the techniques of writing before attempting English 1. English 21 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.

22—SURVEY OF AMERICAN LITERATURE FROM THE COLONIAL PERIOD TO THE CIVIL WAR 2 UNITS
Prerequisite: None.

Note: Not recommended for English majors.

A survey course covering the development of American literature from the Colonial Period through the pre-Civil War American Renaissance. The course is designed to enrich the student's understanding and appreciation of the works of major writers.
23—MODERN AMERICAN LITERATURE 2 UNITS
Prerequisite: None.
Note: Not recommended for English majors.
A course designed to provide a wide reading experience in the significant American literature since the Civil War. The important literary movements with their sociological implications are traced chronologically from the 1870's to the present day so that the student may have background for critical judgment of contemporary American writing.

24—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.

25—SHAKESPEARE 2 UNITS
Prerequisite: None.
Note: Not recommended for English majors.
A reading course including about fifteen of Shakespeare's plays. Lectures on the background of Elizabethan drama are given; class discussions follow the reading assigned. The course aims to provide a basic familiarity with the work of Shakespeare.

26—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.

31—INDUSTRIAL ENGLISH 3 UNITS
Prerequisite: None.
Note: Only one unit of credit will be allowed to those students who have completed English 41 and no credit to those who have completed English 21, or Business 15.
A course designed especially for students taking technical education courses including training in writing, reading, listening, and speaking.

32—INDUSTRIAL ENGLISH 3 UNITS
Prerequisite: None.
Note: No credit will be allowed to those students who have completed English 21. Two units of credit will be allowed for students who complete Business 15.
A course designed especially for students taking technical education courses including advanced training in writing, reading, listening, and speaking.

40—ACCELERATED READING 2 UNITS
Prerequisite: A satisfactory score on the English Placement Examination or a "C" or better in either English 1 or 42.
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.

41—FUNDAMENTALS OF ENGLISH
Prerequisite: None.
Note: This course should be elected by those who fail to make a satisfactory grade in mechanics in the English Placement Examination.
No credit will be given to those students who have completed English 1, 21, 31, or Business 15.
A course to improve grammar, punctuation, sentence structure, spelling, and composition.

42—READING IMPROVEMENT
Prerequisite: None.
Note: No credit will be given to those students who have completed English 1 or 21.
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.

43—ENGLISH AS A SECOND LANGUAGE
Prerequisite: Any student whose native tongue is not English may enter the course.
The aim of English 43 is to help students studying English as a second language increase their ability to use English grammatical structures habitually in speech and writing, and to increase their range and speed of aural comprehension.

44—ENGLISH AS A SECOND LANGUAGE
Prerequisite: English 43, or the consent of the instructor.
The class is designed to help the student of English as a second language to continue to develop his skill in English communication. Particular emphasis, however, will be placed on developing the student’s skill in writing idiomatic and organized English sentences with appropriate punctuation.

101—BASIC COMMUNICATIONS
Prerequisite: None.
This course is 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—Study Skills Instructional Center.

FIRE SCIENCE

Classes in Fire Science are offered in the Extended Day Program as in-service training and up-grading for fire fighting personnel and as pre-employment training for those interested in preparing for a career as a fireman. Identical classes are offered on consecutive evenings to provide for those firemen who must change shifts each week.

1—INTRODUCTION TO FIRE PROTECTION
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, County, and private fire protection agencies; and survey of professional fire protection career opportunities.
FIRE SCIENCE

2—INTRODUCTION TO FIRE SUPPRESSION  
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.

3—FUNDAMENTALS OF FIRE PREVENTION  
Prerequisite: Fire Science 1 or Fire Science 2 or employment in a related occupation.  
Organization and function of the fire prevention organization; inspection; surveying and mapping procedures; recognition of fire hazards; engineering a solution of the hazard; enforcement of the solution; public relations as affected by fire prevention.

4—FIRE FIGHTING TACTICS AND STRATEGY  
Prerequisite: Nine units of Fire Science or Fire Science 2 and employment in a related occupation.  
Review of fire chemistry, equipment, and man power; basic fire fighting tactics and strategy; methods of attack; pre-planning fire problems.

5—FIRE PROTECTION EQUIPMENT AND SYSTEMS  
Prerequisite: Nine units of Fire Science or employment in a related occupation.  
Portable fire extinguishing equipment; sprinkler systems; protection systems for special hazards; and fire alarm and detection systems.

6—RELATED CODES AND ORDINANCES  
Prerequisite: Fire Science 3 or employment in a related occupation.  
Familiarization with national, State and local laws and ordinances which influence the field of fire prevention.

7—FIRE HYDRAULICS  
Prerequisite: Nine units of Fire Science or employment in a related occupation.  
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.

8—FIRE APPARATUS AND EQUIPMENT  
Prerequisite: Three units of Fire Science or employment in a related occupation  
Driving laws, driving technique, construction, and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, apparatus maintenance.

9—FIRE COMPANY ORGANIZATION AND PROCEDURE  
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.
1—BEGINNING FRENCH

Prerequisite: A satisfactory score on the English Placement Examination or a grade of "B" or better in English 41 or a grade of "C" or better in English 21.

Note: This course may not be taken for credit by students who have completed two years of French in high school with grades of "C" or better within the past two years.

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 two half-hour periods a week in the laboratory.

2—BEGINNING FRENCH

Prerequisite: French 1, or two years of French in high school completed within the past two years.

Note: This course may not be taken for credit by students who have completed three years of French in high school with grades of "C" or better within the past two years.

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 two half-hour periods a week in the laboratory.

3—INTERMEDIATE FRENCH

Prerequisite: French 2, or three years of French in high school completed within the past two years.

Note: This course may not be taken for credit by students who have completed four years of French in high school with grades of "C" or better within the past two years.


In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

4—INTERMEDIATE FRENCH

Prerequisite: French 3, or four years of French in high school completed within the past two years.


In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.
GEOGRAPHY

1—ELEMENTS OF GEOGRAPHY 3 UNITS
Prerequisite: None.
A 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.

2—ELEMENTS OF GEOGRAPHY 3 UNITS
Prerequisite: Geography 1.
A study of the basic physical and cultural elements of geography, their correlation and integrated patterns of world distribution. Special attention is given to the earth and its soils, natural vegetation, minerals, populations, and general land use patterns.

5—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.

6—ECONOMIC GEOGRAPHY 3 UNITS
Prerequisite: Geography 5.
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 economic significance of the sea, minerals, power utilization, selected industrial regions, and transportation.

GEOLOGY

1—PHYSICAL GEOLOGY 3 UNITS
Prerequisite: None.
Note: Second semester standing or a good high school record recommended. A study of the physical materials and processes of the earth. Field trips are required and the student is charged a transportation fee. Lecture 3 hours.

1L—PHYSICAL GEOLOGY 1 UNIT
Prerequisite: Geology 1 (may be taken concurrently).
Study of common minerals and rock-types, topographic and geologic maps. Investigation of various landforms and earth structures. Field trips required (student must pay cost of transportation). Laboratory 3 hours.

2—HISTORICAL GEOLOGY 3 UNITS
Prerequisite: Geology 1 or Paleontology 1.
The study of earth processes in time and space concentrating on the geological history of the North American continent; the history of life through time, the fundamental concepts of evolution, and the various uses of the remains of life in rocks. Research reports and field trips required. Lecture 3 hours.
2L—HISTORICAL GEOLOGY

Prerequisite: Geology 2 (may be taken concurrently).

Study of geologic maps showing representative features of the geologic history of North America. Study of common fossils from various parts of the geologic record. Field trips required. (Student must pay the cost of transportation.)

Laboratory 3 hours.

GERMAN

1—BEGINNING GERMAN

Prerequisite: A satisfactory score on the English Placement Examination or a grade of "B" or better in English 41 or a grade of "C" or better in English 21.

Note: This course may not be taken for credit by students who have completed two years of German in high school with grades of "C" or better within the past two years.

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.

2—BEGINNING GERMAN

Prerequisite: German 1 or two years of German in high school completed within the past two years.

Note: This course may not be taken for credit by students who have completed three years of German in high school with grades of "C" or better within the past two years.

Continuation of German 1. Completion of elementary grammar essentials. Reading and interpretation of prose of increasing difficulty. Conversation, diction, 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.

3—INTERMEDIATE GERMAN

Prerequisite: German 2, or three years of German in high school completed within the past two years.

Note: This course may not be taken for credit by students who have completed four years of German in high school with a grade of "C" or better 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.

4—INTERMEDIATE GERMAN

Prerequisite: German 3 or four years of German in high school completed within the past two years.

Continuation of German 3, reading and interpretation of more difficult prose. Increasing stress on oral ability and free composition. Reading of contemporary newspapers and magazines.

Lecture 4 hours.
HEALTH AND PHYSICAL EDUCATION FOR MEN

Each student is required to enroll, to attend regularly, and to maintain a satisfactory record in physical education for each semester in Glendale College, except that a person may be exempted upon presentation of evidence that he (1) has attained the age of 21 years as of the first day of instruction in the semester, or (2) is registered for 8 units or less, or (3) has a medical excuse on file (in this case the Physical Education Department may develop a program of modified activity), or (4) is a junior college graduate. No student may receive credit for more than two Health and Physical Education activity classes in any one semester. It is recommended that a variety of activities be taken during a student's attendance at Glendale College.

1—HEALTH EDUCATION 2 UNITS
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 diseases, the significance of nutrition in health and disease, and the hygiene of the different body systems. Practices and problems in community health.

2—HEALTH EDUCATION—COEDUCATIONAL 3 UNITS
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 requirement of hygiene. Only one unit of credit will be allowed students having credit in Health and Physical Education 1.
Fundamentals of healthful living to provide the prospective teacher with scientific health information and desirable attitudes and practices in healthful living.

10—FIRST AID—COEDUCATIONAL 1 UNIT
Prerequisite: None.

Note: Required of all students for graduation. Recommended for physical education majors.
Prevention and care of accidents or sudden illness.

18—FOOTBALL THEORY (SEE NOTE)
Prerequisite: Health and Physical Education 26C taken concurrently.

Note: Recommended for physical education majors. This course may be taken for one unit each semester for a total of two semesters (2 units).
Theory and development of offensive and defensive formations.

19—RECREATIONAL LEADERSHIP—COEDUCATIONAL 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.
20—INTRODUCTION TO PHYSICAL EDUCATION  2 UNITS

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.

21A—PHYSICAL EDUCATION ACTIVITIES  ½ UNIT

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.

22B—INTERMEDIATE BASEBALL  ½ UNIT

Prerequisite: None.

Note: Designed for those who wish to compete on varsity teams, and recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement. Instruction in rules and game strategy. Practice in fundamental techniques of throwing, fielding, batting, and team play.

Fall semester only.

22C—ADVANCED BASEBALL (VARSITY)  1 UNIT

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.

23A—BEGINNING BASKETBALL  ½ UNIT

Prerequisite: None.

Instruction and practice in the fundamental techniques and rules of the game. Development of team play and competitive participation.

23B—INTERMEDIATE BASKETBALL  ½ UNIT

Prerequisite: None.

Note: Designed for those who wish to compete on varsity teams, and recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement. Instruction in rules and game strategy, practice in fundamental techniques.

23C—ADVANCED BASKETBALL (VARSITY)  1 UNIT

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. Daily.
26A—TOUCH FOOTBALL
Prerequisite: None.
Instruction and practice in fundamentals, with the development of team play and competition.

26B—INTERMEDIATE FOOTBALL
Prerequisite: None.
Note: Recommended for physical education majors and those interested in varsity competition. This course should be taken one semester only to satisfy the physical education requirements. Instruction and practice in techniques of individual offense and defense. Spring semester only.

26C—ADVANCED FOOTBALL (VARSITY)
Prerequisite: Previous experience on an organized team.
Note: Limited to students trying out for the varsity team. Development of team play for competitive participation. Fall semester only. Daily.

27A—BEGINNING TENNIS
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in the basic strokes, fundamental techniques and rules of the game.
27B—INTERMEDIATE TENNIS ½ UNIT
Prerequisite: Some previous playing experience in tennis.
Note: Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in individual fundamentals, development of team play and court strategy.

27C—ADVANCED TENNIS (VARSITY) 1 UNIT
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.

28C—ADVANCED GOLF (VARSITY) ½-1 UNIT
Prerequisite: Some previous playing experience in golf.
Note: Limited to students competing for the varsity team. One-half to one unit credit will be given depending on the number of days the class is offered per week.
Development of play for competitive participation.
Spring semester only.

29A—SENIOR LIFESAVING ½ UNIT
Prerequisite: Intermediate swimming or pass test to qualify.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in all phases of lifesaving as set up by the American Red Cross.

29B—WATER SAFETY INSTRUCTOR’S COURSE ½ UNIT
Prerequisite: Must be 18 years old or over and must hold current Senior Lifesaving 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.

30—DIVING ½ UNIT
Prerequisite: Must be able to swim.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of the five diving groups, including the approach and entry.

31A—BEGINNING SWIMMING ½ UNIT
Prerequisite: Inability to maintain oneself in deep water.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of swimming and survival in the water.
31B—INTERMEDIATE SWIMMING ½ UNIT

Prerequisite: Ability to maintain oneself in deep water.

Note: Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in the swimming strokes and the development of endurance.

31C—ADVANCED SWIMMING AND DIVING (VARSITY) 1 UNIT

Prerequisite: Some previous swimming or diving experience.

Note: Limited to students trying out for the varsity team. Instruction and practice in fundamental techniques for competitive participation.

Daily.

32B—INTERMEDIATE WATER POLO ½ UNIT

Prerequisite: Be able to maintain oneself in deep water.

Note: Designed for those who wish to compete on varsity teams and recommended for physical education majors. This course should be taken for one semester only to satisfy the physical education requirement. Instruction in rules and game strategy, practice in fundamental techniques.

32C—WATER POLO (VARSITY) 1 UNIT

Prerequisite: Some previous experience or an advanced swimmer.

Note: Limited to students trying out for the varsity team. Instruction and practice in fundamental techniques of water polo. Development of team play for competitive participation.

Fall semester only. Daily.

34—UNDERWATER SAFETY INSTRUCTION ½ UNIT

Prerequisite: Health and Physical Education 31B or its 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.

35B—INTERMEDIATE TRACK AND FIELD ½ UNIT

Prerequisite: None.

Note: Designed for those who wish to compete on varsity teams and recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in fundamental techniques of running and field events.

35C—ADVANCED TRACK AND FIELD (VARSITY) 1 UNIT

Prerequisite: None.

Note: Limited to students trying out for the varsity team. Designed for competitive participation. Spring semester only. Daily.

36C—CROSS-COUNTRY RUNNING (VARSITY) 1 UNIT

Prerequisite: None.

Note: Recommended for distance runners and track men wishing to condition themselves for track. Designed for competitive participation. Fall semester only. Daily.
37A—BEGINNING VOLLEYBALL  
Prerequisite: None.  
Instruction in the rules and practice in the fundamental techniques of volleyball. Development of team play and competitive participation.

37B—INTERMEDIATE VOLLEYBALL  
Prerequisite: Previous playing experience.  
Note: Recommended for physical education majors. 
Instruction and practice in individual fundamentals, development of team play and court strategy.

38A—BEGINNING BADMINTON  
Prerequisite: None.  
Note: This course should be taken one semester only to satisfy the physical education requirement. 
Instruction in the rules and practice in individual fundamentals, development of singles and doubles play, and competitive participation.

38B—INTERMEDIATE BADMINTON  
Prerequisite: Health and Physical Education 38A.  
Note: Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement. 
Additional practice and more detailed instruction in fundamentals, development of singles and doubles play, and court strategy.
39A—BEGINNING WRESTLING  ½ UNIT

Prerequisite: None.

Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in the fundamental techniques and rules of amateur wrestling.

39B—INTERMEDIATE WRESTLING  ½ UNIT

Prerequisite: Some previous experience in wrestling or Health and Physical Education 39A.

Note: Designed for those who wish to compete on varsity teams and recommended for physical education majors. This course should be taken for one semester only to satisfy the physical education requirement. Instruction in rules and wrestling strategy, practice in fundamental technique.

39C—ADVANCED WRESTLING (VARSITY)  1 UNIT

Prerequisite: Some previous experience in wrestling or Health and Physical Education 39A.

Note: Limited to students trying out for the varsity team. Instruction and practice in fundamental techniques for competitive participation.

41—BOWLING  ½ UNIT

Prerequisite: None.

Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in the fundamental techniques and rules of the game. Individual and team play.

42A—BEGINNING GYMNASTICS  ½ UNIT

Prerequisite: None.

Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in the fundamental techniques of tumbling and apparatus.

42B—INTERMEDIATE GYMNASTICS  ½ UNIT

Prerequisite: Health and Physical Education 42A or its equivalent.

Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction and practice in more advanced techniques of tumbling and apparatus.

42C—ADVANCED GYMNASTICS (VARSITY)  1 UNIT

Prerequisite: Previous experience in gymnastics.

Note: Limited to students trying out for the varsity team. Development of advanced techniques in tumbling and apparatus for varsity competition.

50A—BEGINNING FOLK DANCING—COEDUCATIONAL  ½ UNIT

Prerequisite: None.

Note: This course should be taken one semester only to satisfy the physical education requirement. Instruction in folk dances of all nations with discussion of festival costumes.
55—BODY MECHANICS  \( \frac{1}{2} \) UNIT

Prerequisite: None.

*Note:* This course should be taken one semester only to satisfy the physical education requirement.

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.

60—ADAPTED ACTIVITIES  \( \frac{1}{2} \) UNIT

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 his disability.

Laboratory 2 hours.

71A—AMERICAN FOLK DANCING—COEDUCATIONAL  \( \frac{1}{2} \) UNIT

Prerequisite: None.

*Note:* Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement.

Instruction and participation for recreational groups in American cowboy, square, and circle dancing.

72A—BEGINNING ARCHERY—COEDUCATIONAL  \( \frac{1}{2} \) UNIT

Prerequisite: None.

*Note:* This course should be taken one semester only to satisfy the physical education requirement.

Instruction in the technique of archery and participation in a tournament using the Junior Columbia Round.

72B—INTERMEDIATE ARCHERY—COEDUCATIONAL  \( \frac{1}{2} \) UNIT

Prerequisite: Health and Physical Education 72A or credit in high school.

*Note:* This course should be taken one semester only to satisfy the physical education requirement.

Practice in target and tournament shooting using Columbia Round.

73A—BEGINNING SOCIAL DANCING—COEDUCATIONAL  \( \frac{1}{2} \) UNIT

Prerequisite: None.

*Note:* This course should be taken one semester only to satisfy the physical education requirement.

Instruction and practice in the fundamental steps of the fox-trot, tango, waltz, rumba, and other popular dances.

73B—INTERMEDIATE SOCIAL DANCING—COEDUCATIONAL  \( \frac{1}{2} \) UNIT

Prerequisite: Health and Physical Education 73A or a knowledge of basic steps.

*Note:* This course should be taken one semester only to satisfy the physical education requirement.

Instruction and practice in various combinations of steps of the fox-trot, tango, waltz, rumba, samba, New Yorker, mambo, and other popular dances.
74A—BADMINTON—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction in the rules and practice in individual fundamentals, development of singles and doubles play, and competitive participation.

75A—BEGINNING GOLF—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of golf.

75B—INTERMEDIATE GOLF—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 75A or equivalent.
Note: Each student is expected to pay a fee for use of golf facilities. This course should be taken one semester only to satisfy the physical education requirement.
Advanced instruction and practice on the golf course.

76A—BEGINNING TENNIS—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the basic strokes, fundamental techniques and rules of the game.

76B—INTERMEDIATE TENNIS—COEDUCATIONAL ½ UNIT
Prerequisite: Some previous playing experience in tennis.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in individual fundamentals, development of team play and court strategy.

77A—VOLLEYBALL—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in volleyball techniques with team tournaments.

78—INTERMEDIATE MODERN DANCE—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 51A or credit in high school or equivalent.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Analysis of dance form and group movement; practice in increasingly difficult techniques.

79—BOWLING—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamental techniques and rules of the game.
HEALTH AND PHYSICAL EDUCATION FOR MEN-WOMEN

89A—SENIOR LIFESAVING—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 31B or pass test to qualify.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in all phases of lifesaving as set up by the American Red Cross.

89B—WATER SAFETY INSTRUCTOR’S COURSE—COEDUCATIONAL ½ UNIT
Prerequisite: Must be 18 years old or over and must hold current Senior Lifesaving card.
Note: This course should be taken one semester only to satisfy the physical education requirement.
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.

90—DIVING—COEDUCATIONAL ½ UNIT
Prerequisite: Must be able to swim.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of the five diving groups, including the approach and entry.

91A—BEGINNING SWIMMING—COEDUCATIONAL ½ UNIT
Prerequisite: Inability to maintain oneself in deep water.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of swimming and survival in the water.

91B—INTERMEDIATE SWIMMING—COEDUCATIONAL ½ UNIT
Prerequisite: Ability to maintain oneself in deep water.
Note: Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the swimming strokes and the development of endurance.

94—UNDERWATER SAFETY INSTRUCTION—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 31B or its equivalent.
Note: This course should be taken one semester only to satisfy the physical education requirement.
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.

HEALTH AND PHYSICAL EDUCATION FOR WOMEN

Each student is required to enroll, to attend regularly, and to maintain a satisfactory record in a physical education activity for each semester in Glendale College, except that a person may be exempted upon presentation of evidence that she (1) has attained the age of 21 years as of the
HEALTH AND PHYSICAL EDUCATION FOR WOMEN

first day of instruction in the semester, or (2) is registered for 8 units or less, or (3) has a medical excuse on file (in this case the Physical Education Department may develop a program of modified activity), or (4) is a junior college graduate.

Students may receive credit for two Health and Physical Education activity classes each semester.

Women students must take, during the first three semesters, one activity from each of the three required categories: Team Sports, Individual-Dual, and Rhythmic Activities. Women students may choose any activity after they have fulfilled the three requirements. The three categories are:


1—HEALTH EDUCATION

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 diseases, the significance of nutrition in health and disease, and the hygiene of the different body systems.

2—HEALTH EDUCATION—COEDUCATIONAL

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 and Physical Education 1.

Fundamentals of healthful living to provide the prospective teacher with scientific health information and desirable attitudes and practices in healthful living.

3—ELEMENTARY SCHOOL GAME ACTIVITIES—COEDUCATIONAL

Prerequisite: Sophomore standing.

Note: It is recommended that this course be taken by all prospective elementary teachers and physical education and recreation majors.

Games which are adapted to the needs and interests of elementary school children to provide the prospective teacher and youth leader with skills in and understanding and appreciation of a wide variety of physical education activities.

4—ELEMENTARY SCHOOL RHYTHM ACTIVITIES

Prerequisite: Sophomore standing.

Note: It is recommended that this course be taken by all prospective elementary teachers and physical education and recreation majors.

Rhythm activities for elementary school children to provide the prospective teacher with knowledge of movement skills for promoting growth and development. An introduction to equipment, records, and audio-visual aids commonly used in the physical education program.
10—FIRST AID—COEDUCATIONAL  1 UNIT
Prerequisite: None.
Note: Required of all students for graduation.
Prevention and care of accidents and emergencies in the home and school.

19—RECREATIONAL LEADERSHIP—COEDUCATIONAL  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.

20—INTRODUCTION TO PHYSICAL EDUCATION  2 UNITS
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.

21A—BEGINNING SPORTS  ½ UNIT
Prerequisite: None.
Instruction in the fundamental techniques of seasonal sports: speedway, basketball, volleyball, hockey, and softball.
21B—INTERMEDIATE SPORTS ½ UNIT
Prerequisite: Health and Physical Education 21A or credit in high school.
Development of team play in seasonal sports: basketball, speedaway, volleyball, hockey, and softball.
Participation with other junior colleges in all of the sports offered, as members of the College Recreation Association.

27A—BEGINNING TENNIS ½ UNIT
Prerequisite: None.
Instruction and practice in tennis strokes, techniques, and rules.

27B—INTERMEDIATE TENNIS ½ UNIT
Prerequisite: Health and Physical Education 27A or credit in high school.
Instruction and practice in tennis strokes, techniques, umpiring, and doubles and singles tactics.

29A—SENIOR LIFESAVING ½ UNIT
Prerequisite: Health and Physical Education 31B or pass the test to qualify.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in all phases of lifesaving as set up by the American Red Cross.

29B—WATER SAFETY INSTRUCTOR’S COURSE ½ UNIT
Prerequisite: Must be 18 years old or over and must hold current Senior Lifesaving 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.

31A—BEGINNING SWIMMING ½ UNIT
Prerequisite: Inability to maintain oneself in deep water.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamentals of swimming and survival in the water.

31B—INTERMEDIATE SWIMMING ½ UNIT
Prerequisite: Ability to maintain oneself in deep water.
Note: Recommended for physical education majors. This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the swimming strokes and the development of endurance.

33—SYNCHRONIZED SWIMMING ½ UNIT
Prerequisite: Health and Physical Education 31B or equivalent.
Instruction and practice in aquatic stunts and rhythmic swimming. Participation in synchronized swimming routines.
Laboratory 2 hours.
42A—BEGINNING GYMNASTICS  ½ UNIT
Prerequisite: None.
Instruction and practice in the fundamental techniques of tumbling and trampoline.

50A—BEGINNING FOLK DANCING—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Instruction in folk dances of all nations with discussion of festival costumes.

51A—BEGINNING MODERN DANCE  ½ UNIT
Prerequisite: None.
Instruction in the fundamentals of rhythmic forms with practice in individual and group composition.

51B—INTERMEDIATE MODERN DANCE  ½ UNIT
Prerequisite: Health and Physical Education 51A or credit in high school.
Analysis of dance form and group movement; practice in increasingly difficult techniques.

55—BODY MECHANICS  ½ UNIT
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.

60—ADAPTED ACTIVITIES  ½ UNIT
Prerequisite: None.
A class for the student whose medical examination indicates that she should take restricted activities. Rest, sunbaths, or limited activities as the need is indicated on the health record.

71A—AMERICAN FOLK DANCING—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Instruction and participation for recreational groups in American cowboy, square, and circle dances.

72A—BEGINNING ARCHERY—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction in the technique of archery and participation in a tournament using the Junior Columbia Round.

72B—INTERMEDIATE ARCHERY—COEDUCATIONAL  ½ UNIT
Prerequisite: Health and Physical Education 72A or credit in high school.
Practice in target and tournament shooting using the Columbia Round.

73A—BEGINNING SOCIAL DANCING—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in the fundamental steps of the fox-trot, tango, waltz, rumba, samba, and other popular dances.
HEALTH AND PHYSICAL EDUCATION FOR WOMEN-HISTORY

73B—INTERMEDIATE SOCIAL DANCING—COEDUCATIONAL  ½ UNIT
Prerequisite: Health and Physical Education 73A or a knowledge of basic steps.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction and practice in various combinations of steps of the fox-trot, tango, waltz, rumba, samba, New Yorker, mambo, and other popular dances.

74—BADMINTON  ½ UNIT
Prerequisite: None.
Instruction in the rules and practice in fundamentals, development of singles and doubles play, and competitive participation.

74A—BADMINTON—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Note: This course should be taken one semester only to satisfy the physical education requirement.
Instruction in the rules and practice in individual fundamentals, development of singles and doubles play, and competitive participation.

75A—BEGINNING GOLF—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Instruction and practice in golf strokes, techniques and rules.

77A—VOLLEYBALL—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Instruction and practice in volleyball techniques with team tournaments.

78—INTERMEDIATE MODERN DANCE—COEDUCATIONAL  ½ UNIT
Prerequisite: Health and Physical Education 51A or credit in high school or equivalent.
Analysis of dance form and group movement; individual and group composition.

79—BOWLING—COEDUCATIONAL  ½ UNIT
Prerequisite: None.
Instruction and practice in the fundamental techniques and rules of the game.

HISTORY

1—HISTORY OF WESTERN EUROPE  3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a “C” average in high school or college social science classes.
Note: Students who have taken History 8 will receive only one unit credit for History 1.
The growth of western European civilization from the decline of the Roman Empire 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 on present world problems.
2—HISTORY OF WESTERN EUROPE

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Note: Students who have taken History 9 will receive only one unit credit for History 2.

The growth of western European civilization from the decline of the Roman Empire to the present time. An introduction to the study of history, giving a general perspective of the development of those political, economic, social-ecclesiastical institutions which explain our present-day civilization. An attempt is made to orient the student's thinking on present world problems.

3—HISTORY OF THE AMERICAS

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

A general survey of the history of the Western Hemisphere from discovery to independence. The planning of the European civilization in the Western Hemisphere, the growth of the colonies of the different nations, colonial systems, the international contest for the continents, and the wars of independence in English - America and Hispanic - America.

Lecture 3 hours.

4—HISTORY OF THE AMERICAS

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

A general survey of the history of the Western Hemisphere from the establishing of the independent American republics to the present; their individual problems, their relations with each other and with the rest of the world.

Lecture 3 hours.

5—UNITED STATES HISTORY

Prerequisite: None.

Note: It is recommended that this course be completed prior to enrollment in a course to meet the California State requirement in the American Constitution.

This course allows only one unit of credit for students who have completed History 17 and no credit for those who have completed History 4, History 10, or History 17-18.

A brief study of the political, economic, and social history of the United States since 1789. Emphasis is placed upon the development of American ideals and policies. This course meets the California State requirement in American History.

7—HISTORY OF CIVILIZATION (Pre-History to 800)

Prerequisite: A satisfactory score in the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.
8—HISTORY OF CIVILIZATION (Carolingian Empire to the French Revolution, c. 1789)  
3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Note: Students who have taken History 1 will receive only one unit of credit for History 8.

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.

9—HISTORY OF CIVILIZATION (French Revolution to the Present)  
3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Note: Students who have taken History 2 will receive only one unit of credit for History 9.

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.

10—UNITED STATES HISTORY  
3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Note: This course allows only one unit of credit for students who have completed History 5 and History 17 and no credit for those who have completed History 4 or History 18.

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 requirement in American History. Recommended for students transferring to California State College at Los Angeles.

12—PACIFIC COAST HISTORY  
3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.

17—HISTORY OF THE UNITED STATES  
3 UNITS
Prerequisite: Second semester standing is required of all students. In addition, a satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.
Note: History 17 allows only two units of credit for students who have completed History 5 and 1½ units of credit for those who have completed History 10. History 17-18 allows only four units of credit for students who have completed History 5. History 17-18 allows only three units of credit for students who have completed History 10.

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. This course (if both semesters are completed) meets the California State requirements in American History and the American Constitution.

18—HISTORY OF THE UNITED STATES 3 UNITS
Prerequisite: History 17.
Note: History 17-18 allows only four units of credit for students who have completed History 5. History 17-18 allows only three units of credit for students who have completed History 10.

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. This course (if both semesters are completed) meets the California State requirements in American History and the American Constitution.

19—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 “C” average in high school or college social science classes.

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.

20—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 “C” average in high school or college social science classes. History 19 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.

ECONOMIC HISTORY OF THE UNITED STATES
See Economics 11.

INTRODUCTION TO SOCIAL SCIENCE
See Social Science 31-32.

HOME ARTS

11—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 commer-
social pattern or a pattern of the student's own design and a hand project using three different stitches. A fashion show is required at the end of the semester showing the work accomplished in class.

12—ADVANCED CLOTHING

Prerequisite: Home Arts 11 or 17.

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 as well as a fashion show at the end of the semester showing the accomplished work.

17—APPAREL DESIGN

Prerequisite: Home Arts 11 or one year of Clothing in the 10th, 11th, or 12th grade in high school. (Home Arts 11 may be taken concurrently.)

Pattern Making and Design is taught in Home Arts 17, 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 customer's garment. Also arrange and present a fashion show.

Lecture 6 hours, laboratory 9 hours.

18—APPAREL DESIGN

Prerequisite: Home Arts 17.

Crochet items and children's clothing are taught in Home Arts 18 which presents the information and demonstrates the skills to develop in the student the ability to: make an adult's and child's basic crochet 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. Four projects are required: one pair slacks, one bathing suit, one child's dress, one child's play suit. Grading of all types of garments. Also arrange and present a fashion show.

Lecture 6 hours, laboratory 9 hours.

19—ADVANCED APPAREL DESIGN

Prerequisite: Home Arts 17.

Tailoring is taught in Home Arts 19. 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. Arrange and present a fashion show.

Lecture 6 hours, laboratory 9 hours.

20—ADVANCED APPAREL DESIGN

Prerequisite: Home Arts 17.

Draping, taught as Home Arts 20, is presenting the information and demonstrating the skills necessary to develop in the student the ability to: work in a group in order to make dress forms with arms, finish the forms and mount on a stand; work individually to drape various types of blouses, skirts, dresses, coats, and suits, using French draping and flat table draping; make alterations, organize and manage shop, and run workroom. Garments required: drape one sports dress, drape one dressy dress or formal. Arrange and present a fashion show.

Lecture 6 hours, laboratory 9 hours.
COSTUME CONSTRUCTION
See Theater Arts 23.

25—ELEMENTS OF NUTRITION 2 UNITS
Prerequisite: None.
Note: Not offered 1968-69.
A study of foods in relation to body needs. Emphasis is placed upon diet for optimum health. Meals are planned for the individual and the family group, with consideration of costs and of modern dietetic trends.

33—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.

35—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.

36—THE CHILD FROM FIVE TO TWELVE 3 UNITS
Prerequisite: Home Arts 35.

38—CHILD HEALTH 3 UNITS
Prerequisite: None.
This course 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.

39—HOME MANAGEMENT 3 UNITS
Prerequisite: None.
Management principles in relation to home and family resources. The attainment of values and goals through intelligent financial, time, and energy planning. Lectures, reports and discussions on housing, equipment, furnishings, family transportation, food and clothing. Speakers and field trips.
40—METHODS AND MATERIALS IN PRE-SCHOOL EDUCATION 3 UNITS
Prerequisite: Home Arts 35.
This course 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 play activities appropriate for the pre-school child. Role of the pre-school teacher is examined.

41—HOME, SCHOOL AND COMMUNITY RELATIONS 2 UNITS
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 2 hours.

HORTICULTURE
See Biology 38.

INTERIOR DESIGN
See Art 29.

MARRIAGE AND FAMILY LIVING
See Psychology 31.

SILK SCREEN PRINTING
See Art 23-24.

JOURNALISM

1—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.

2—REPORTING THE NEWS 3 UNITS
Prerequisite: A satisfactory grade in English Placement Examination or a grade of "B" or better in English 41, or a grade of "C" or better in English 21.
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 communication. Newspapers and other media at the local community level as well as the national metropolitan level are utilized.

3—ADVANCED NEWS WRITING AND NEWSPAPER PRODUCTION 3 UNITS
Prerequisite: Journalism 2 or publication experience.
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 overall emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the Campus Newspaper El Vaquero.

4—ADVANCED NEWS WRITING AND NEWSPAPER PRODUCTION  3 UNITS
Prerequisite: Journalism 2 or 3.
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 overall emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the Campus Newspaper El Vaquero.

LAW

REAL ESTATE LAW
See Real Estate 7.

17—BUSINESS LAW  3 UNITS
Prerequisite: None.
A study of law as it influences business conduct. Work of the first semester includes growth of law and recent changes, especially the new Uniform Commercial Code; also principles of contracts, sales, and negotiable instruments.
Cases, lecture, and discussion 3 hours.

18—BUSINESS LAW  3 UNITS
Prerequisite: Law 17.
Deals with real and personal property, agency, partnership and corporate organizations, insurance, business torts, and trade regulation.
Cases, lecture, and discussion 3 hours.

31—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, mortgages, 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.

MACHINE SHOP

1—MACHINE SHOP  7 UNITS
Prerequisite: Concurrent enrollment in Technical Education 43 or Technical Education 44.
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. Instructions on the proper care and use of precision and hand tools. Basic training in tool grinding, machine setup, and the operation of lathes, shapers, milling machines, drill presses, and grinders.
MACHINE SHOP

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 demonstrations will precede all new operations.

2—MACHINE SHOP

Prerequisite: Machine Shop 1 and concurrent enrollment in Technical Education 44 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.

3—ADVANCED MACHINE SHOP

Prerequisite: Machine Shop 2 and concurrent enrollment in one of the following: Welding 17, Drafting 29, Technical Education 45 or 46.

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.

4—ADVANCED MACHINE SHOP

Prerequisite: Machine Shop 3 and concurrent enrollment in one of the following: Welding 17, Drafting 29, Technical Education 45 or 46.

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 is 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.

5—INTRODUCTION TO MACHINE SHOP

Prerequisite: None.

Note: Not open to students who have completed Machine Shop 1. Credit per semester will be indicated on schedule. A maximum of five units for Machine Shop 5.

An introductory course to aid students in allied fields of training. The course will include theory and practice of hand and machine tool equipment.

(SEE NOTE)
6—INTRODUCTION TO MACHINE SHOP
Prerequisite: Five units of Machine Shop 5.
Note: Not open to students who have completed Machine Shop 1.
An introductory course to aid students in allied fields of training. The course will include theory and practice of hand and machine tool equipment.

7—MACHINE SHOP PRACTICE
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 7 and 8.
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.

8—MACHINE SHOP PRACTICE
Prerequisite: Machine Shop 7.
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 7 and 8.
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.

9—PRINCIPLES OF TOOL ENGINEERING
Prerequisite: Machine Shop 4 and concurrent enrollment in one of the following: Welding 17, Drafting 29, Technical Education 45 or 46.
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. 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.

MATHEMATICS

1—INTERMEDIATE ALGEBRA
Prerequisite: Mathematics 40 and Mathematics 41, or one year of algebra and one year of plane geometry in high school. Mathematics 40 may be taken concurrently.
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.

2—TRIGONOMETRY
Prerequisite: Mathematics 1 or one and one-half years of algebra and one year of plane geometry in high school.
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.

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MATHEMATICS

3—ANALYTIC GEOMETRY AND CALCULUS 5 UNITS
Prerequisite: Mathematics 1 and Mathematics 2, or two years of algebra, one year of plane geometry, and one semester of trigonometry in high school.
Note: Only three units of credit are allowed students having credit in Mathematics 8.
Algebra, rectangular coordinates, the straight line, equations of curves, differentiation of algebraic functions and applications, indefinite and definite integrals and applications.

4—ANALYTIC GEOMETRY AND CALCULUS 3 UNITS
Prerequisite: Mathematics 3.
Conics, polar coordinates, parametric equations, curvature of plane curves, and differentiation of transcendental functions.

5—DIFFERENTIAL AND INTEGRAL CALCULUS 3 UNITS
Prerequisite: Mathematics 4.
Indefinite and definite integrals, techniques of integration, applications, infinite series.

6—SOLID ANALYTIC GEOMETRY, DIFFERENTIAL AND INTEGRAL CALCULUS 3 UNITS
Prerequisite: Mathematics 5 or Mathematics 16.
Solid analytic geometry, partial differentiation, multiple integration, with applications, ordinary differential equations.

10—INTERMEDIATE ALGEBRA FOR BUSINESS 5 UNITS
(with applications for Data Processing Mathematics)
Prerequisite: One year of high school algebra and a satisfactory score on the Mathematics Proficiency Examination, or Mathematics 41.
Note: Recommended for Business Administration majors; this course may not be taken for credit by students having credit for Mathematics 1.
The course provides a comprehensive foundation for the understanding and solution of problems commonly met in business. Preparation is made for more advanced topics in business and economics. Particular emphasis is given to mathematical abilities needed in the fields of electronic computers and data processing.

12—MATHEMATICS OF FINANCE 3 UNITS
Prerequisite: Mathematics 10.
Note: Recommended for Business Administration majors.
A study of interest, discount, annuities, amortization, sinking funds, valuation of bonds, depreciation, and life insurance.
Lecture, demonstration and discussion 3 hours.

14—INTRODUCTORY MATHEMATICAL ANALYSIS FOR BUSINESS 3 UNITS
Prerequisite: Mathematics 1 or Mathematics 12.
Elementary differential and integral calculus and curve fitting, with applications to business and economics.
15—ANALYTIC GEOMETRY AND CALCULUS 6 UNITS
Prerequisite: Mathematics 1 and Mathematics 2, or two years of algebra, one year of plane geometry, and one semester of trigonometry in high school.
Rectangular coordinates, the straight line, equations of curves, differentiation of algebraic functions and applications, indefinite and definite integrals and applications, conics.

16—ANALYTIC GEOMETRY AND CALCULUS 5 UNITS
Prerequisite: Mathematics 15.
Polar coordinates, parametric equations, curvature of plane curves, differentiation of transcendental functions, integration by other methods with applications, infinite series.

30—FORTRAN II PROGRAMMING 3 UNITS
Prerequisite: Mathematics 2 or plane trigonometry.
This course is designed to introduce the student to the techniques of writing a program in Fortran II, 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.

38—ARITHMETIC FOR ELEMENTARY TEACHERS 3 UNITS
Prerequisite: One year of algebra in high school or Mathematics 41; one year of plane geometry or Mathematics 40; proof of competence in arithmetic (satisfactory score on the Mathematics Proficiency Examination) or Mathematics 50 or Business 29.
Designed primarily for prospective teachers of arithmetic. The study of the fundamental operations on 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.

40—PLANE GEOMETRY 3 UNITS
Prerequisite: Mathematics 41 or one year of algebra in high school.
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.

41—FUNDAMENTALS OF ALGEBRA 3 UNITS
Prerequisite: None.
A course in the fundamental operations of algebra: solution of equations, simple and quadratic, algebraic operations, algebraic fractions, and powers and roots. This course is the equivalent of one year of algebra in high school.

50—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, per cent, basic units of measure, and properties of decimal number system. This course will fulfill the mathematics requirement for the Associate in Arts Degree.
METALS-MINEROLOGY-MUSIC

MICROBIOLOGY
See Biology 12.

METALS

15—GENERAL METALS (IA)  3 UNITS
Prerequisite: None.
A course designed to aid students in allied fields of metal working. Emphasis
is placed on teaching techniques for industrial arts majors. The course in-
cludes 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.

MINERALOGY

1—MINERALOGY  4 UNITS
Prerequisite: Chemistry 1 or 10 or 41; or chemistry in high school. Chemistry 1 may
be taken concurrently.
Note: It is recommended that Geology 1 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.

41—MINERALOGY AND ORE IDENTIFICATION  2 UNITS
Prerequisite: None.
An introductory course, including laboratory, on minerals 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 Scin-
tillometer for identification of uranium-radium bearing ores.

MUSIC

10—FUNDAMENTALS OF MUSIC  3 UNITS
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. This
course is necessary for music majors who are not qualified to enter Music 11
and is recommended as extremely helpful to those students who plan a
career in the field of elementary education. It is suggested that, if possible,
Music 60 be taken concurrently.
Lecture 3 hours.

11—THEORY AND STRUCTURE OF MUSIC  4 UNITS
Prerequisite: Music 10 or equivalent (or permission of instructor).
A study of harmony and structure through analysis, part-writing, sight-
singing, dictation and keyboard application.
Concurrent study of piano recommended. Required for Music majors.
Lecture 5 hours.
12—THEORY AND STRUCTURE OF MUSIC

Prerequisite: Music 11.
Continuation of Music 11. Emphasis placed on both linear (contrapuntal) and chordal (four-part harmonic) writing. Required for Music majors. Lecture 5 hours.

13—THEORY AND STRUCTURE OF MUSIC

Prerequisite: Music 12.
Continuation of Music 12. Required for Music majors. Lecture 5 hours.

14—COUNTERPOINT

Prerequisite: Music 12.
A study of 18th century melody, invention, canon and fugue through analysis and composition.

15—ARRANGING

Prerequisite: High school harmony, Music 10 or Music 11 at Glendale 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.)
This course 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.

20—HISTORY AND APPRECIATION OF MUSIC

Prerequisite: None.
Note: Students having credit for Music 25 or 26 may not receive credit for Music 20.
This course is designed especially for non-Music majors. Music majors should enroll in Music 25 and 26.
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 on the concert stage today.

25—HISTORY AND LITERATURE

Prerequisite: A substantial background in music is required of all students who enroll in Music 25. The following courses will satisfy this requirement: High school harmony or musicianship, and the following Glendale College courses, or their equivalent: Music 10 or 11.
Note for Music Majors: Music 25 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 26 before enrolling in Music 25; this is not advised unless absolutely necessary.
Music 25 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 and also requires attendance at concerts.
26—HISTORY AND LITERATURE
Prerequisite: A substantial background in music is required for all students who enroll in Music 26. The following courses will satisfy this requirement: High school harmony or musicianship, and the following Glendale College courses, or their equivalent: Music 10, 11 or 25.

Note for Music Majors: Music 26 is required for all Music majors. This course is designed primarily for the Music major and meets the partial transfer requirement of Music History and Literature courses for a Music major into a four-year college. Music majors may enroll in Music 26 before enrolling in Music 25; this is not advised unless absolutely necessary. Music 26 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 and also requires attendance at concerts.

30—CHORUS
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.

31A—COLLEGE CHOIR
Prerequisite: Music 30 or at least one semester of choral experience in high school and evidence of vocal ability and musicianship.

Note: This course may be taken for one unit each semester for a total of four semesters (4 units). Any combination of Music 31A and 31B may not earn more than eight semester units. Students may not transfer from Music 31B to 31A, or vice versa, after the end of the third week of the semester. An advanced form of choral art. Repertoire drawn from all ages and cultures. Emphasis on interpretation, choral techniques, and public performances.
31B—COLLEGE CHOIR 2 UNITS
Prerequisite: Music 30 or at least one semester of choral experience in high school and evidence of vocal ability and musicianship.

Note: This course may be taken for two units each semester for a total of four semesters (8 units). Any combination of Music 31A and 31B may not earn more than eight semester units. Students may not transfer from Music 31B to 31A, or vice versa, after the end of the third week of the semester. An advanced form of choral art. Repertoire drawn from all ages and cultures. Emphasis on interpretation, choral techniques, and public performances.

32—VOCAL ENSEMBLES (SEE NOTE)
Prerequisite: The ability to sing with good pitch and acceptable vocal quality. The display of good musicianship.

Note: This course may be taken for one unit each semester for a total of four semesters (4 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.

33—MADRIGAL SINGERS (SEE NOTE)
Prerequisite: Evidence of previous choral experience of a satisfactory nature. Ability to sight-read at least simple vocal parts; a basic knowledge of techniques of choral work. Admission by audition only.

Note: This course may be taken for one unit each semester for a total of four semesters (4 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.

35-36—VOICE TRAINING 2-2 UNITS
Prerequisite for 35: A sufficiently accurate ear to sing in tune.
Prerequisite for 36: Music 35.

The principles of correct vocal production and their application to the simpler songs and ballads in English. Some foreign language songs will be explored in Music 36. 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.

40—INSTRUMENTAL TECHNIQUES (Wood Wind—Brass) 1 UNIT
Prerequisite: None.

Music 40 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.

41—CONCERT BAND (SEE NOTE)
Prerequisite: Ability to perform on a standard band instrument.

Note: This course may be taken for a total of four semesters (4 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 41 and Music 42 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.
42—PEP BAND
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 four semesters. (4 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 42 are required to attend all football games, rallies, etc., during the first ten weeks of the fall semester.

43—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 four semesters (4 units).
Workshop for the study and performance of music in the contemporary idiom. Performances are made at Glendale 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.

44—WOOD WIND ENSEMBLE
(SEE NOTE)
Prerequisite: Ability to play a musical instrument in a band or orchestra. Approval by the instructor is required.

Note: This course may be taken for one unit each semester for a total of four semesters (4 units).
A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

45—BRASS ENSEMBLE
(SEE NOTE)
Prerequisite: Ability to play a musical instrument in a band or orchestra. Approval by the instructor is required.

Note: This course may be taken for one unit each semester for a total of four semesters (4 units).
A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

50—INSTRUMENTAL TECHNIQUES (Strings)
(SEE NOTE)
Prerequisite: None.
Music 50 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.

51—ORCHEstra
(SEE NOTE)
Prerequisite: Ability to perform on a standard orchestral instrument. Approval by the instructor is required.
Note: This course may be taken for one unit each semester for a total of four semesters (4 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.
52—STRING ENSEMBLE
(SEE NOTE)
Prerequisite: Ability to play a musical instrument in a band or orchestra. Approval by the instructor is required.

Note: This course may be taken for one unit each semester for a total of four semesters (4 units).

A small instrumental group which plays for College and community activities. Emphasis on balance, dynamics, phrasing, and interpretation.

60—BEGINNING PIANO
Prerequisite: None.

Note: Music 60 is not open to students having previous instruction or experience in piano playing.

This course is designed for students who wish to gain an elementary knowledge of the piano keyboard and the rudiments of music reading. Students are required to have a piano available for practice. The content of the course will be based on the assumption that students have had no previous musical training.

61—ADVANCED BEGINNING PIANO
Prerequisite: Music 60 or one-half year of piano.

A course for the advancement of the beginning pianist in skills, interpretation and tonal coloring.

62—INTERMEDIATE PIANO
Prerequisite: Music 61 or one year of experience.

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.

63—ADVANCED PIANO
Prerequisite: Music 62 or three years of experience.

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 and required to perform at College and city functions.

65—ACCOMPANIST TRAINING
(SEE NOTE)
Prerequisite: Ability to sight read and play with ease piano literature of more than moderate difficulty.

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.

66—ORGAN
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.

Lecture 1 hour, laboratory 3 hours.
MUSIC—NURSING—PALEONTOLOGY—PHILOSOPHY

70—MUSIC THEATER WORKSHOP 2 UNITS
Prerequisite: Ability to sing with good pitch and acceptable vocal quality.
Note: Student may enroll for two units per semester for two semesters.
A course designed to provide training and experience in the art of the musical stage. Scores of light operas, musical comedies, one-act operas, and other vehicles of the musical stage are studied and performed. Opportunity for public performance will be provided. Lecture and laboratory varying.

NATURAL HISTORY
See Biology 30.

NURSING
NURSING—SEE VOCATIONAL NURSING

PALEONTOLOGY

1—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 including 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 biologic environments. The sequences of floras and faunas as found in the rocks. An outline of man's physical development.

PERSONAL DEVELOPMENT
See Home Arts 33.

PHILOSOPHY

1—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 "C" average in high school or college social science classes.
An overview of both the classical and modern problems of philosophy. A consideration of idealism, naturalism, and the problems of truth, beauty, ethics, and theology.

2—INTRODUCTION TO PHILOSOPHY 3 UNITS
Prerequisite: Philosophy 1.
Metaphysics, epistemology, historical and political philosophical problems. A consideration of the problems of knowing, of reality, of the beautiful, of justice, and of the making of judgments in historical and political situations.

15—COMPARATIVE WORLD RELIGIONS 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.
A comparative study of the salient ideas of the world's major religions, including Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Confucianism, Shintoism, and others.
PHILOSOPHY-PHOTOGRAPHY

16—ETHICS  3 UNITS

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.

17—INTRODUCTION TO LOGIC  3 UNITS

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.

PHOTOGRAPHY

1—ELEMENTS OF PHOTOGRAPHY  2 UNITS

Prerequisite: None.

A two-hour lecture course. Survey of still cameras, photographic lenses and shutters, study of light sensitive material. Photography 2 or 3 should be taken concurrently. A modified form of this course is usually given in the Extended Day Program.

2—ELEMENTS OF PHOTOGRAPHY* (SEE NOTE)

Prerequisite: Photography 1, and Art 3A.

Note: Photography 2 allows one unit of credit for two hours of satisfactory laboratory work a week; two units for four hours a week. A maximum of two units credit is allowed for this course.
Photography 2 is lecture and laboratory practice.

3—INTERMEDIATE PHOTOGRAPHY* (SEE NOTE)

Prerequisite: Photography 1 (which may be taken concurrently).

Note: The student may earn one, two or three units each semester, with a maximum of six units, the hours to be arranged at the time of registration. Credit earned dependent upon satisfactory completion of two hours of laboratory work per week per unit.
A lecture and laboratory course designed for students who preferably have had some experience in photography. A modified form of this course is usually given in the evening.
*The College reserves the right to retain student work for one year for exhibit purposes.
5—ADVANCED PHOTOGRAPHY*

Prerequisite: Photography 3.

Note: Photography 5 allows one to five units of credit each semester, with a maximum of ten units; the hours to be arranged at the time of registration. Credit earned dependent upon satisfactory completion of two hours of laboratory work per week per unit. A modified form of the course is usually given in the evening.

An advanced course for competent students with previous training and experience, Portfolio preparation. Individual assignments.

*The College reserves the right to retain student work for one year for exhibit purposes.
PHOTOGRAPHY-PHYSICS

7—SPECIAL PROJECTS—PHOTOGRAPHY* (SEE NOTE)

Prerequisite: None.

Note: The student may earn one, two or three units each semester, with a
maximum of six units, the hours to be arranged at the time of registration.
Credit earned dependent upon satisfactory completion of two hours of lab-
oratory work per week per unit. Art 3A 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 illustration, advertising design.

PHYSICS

4A—ENGINEERING PHYSICS 5 UNITS

Prerequisite: Physics 11 or physics taken in high school and Mathematics 3.

Note: Physics 4A is restricted to Engineering and Science majors.

Mechanics and properties of matter. An intensive study of motion, dynamics
and statics, fluids, oscillations, wave motion, and sound, with emphasis upon
vector analytical methods.
Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.

4B—ENGINEERING PHYSICS 4 UNITS

Prerequisite: Physics 4A and Mathematics 5. (Mathematics 5 may be taken con-
currently.)

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.

4C—ENGINEERING PHYSICS 5 UNITS

Prerequisite: Physics 4A and Mathematics 5.

Heat, thermodynamics, optics, and modern physics. An intensive study of the
concepts of 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 relativity.
Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.
*The College reserves the right to retain student work for one year for
exhibit purposes.

5—GENERAL PHYSICS 4 UNITS

Prerequisite: Physics or chemistry (any one of: Physics 10 or 11, one year of
physics in high school, Chemistry 41 or 10, or one year of chemistry in high school)
and trigonometry (one semester of trigonometry in high school or Mathematics 2
which may be taken concurrently with Physics 5).

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.
*The College reserves the right to retain student work for one year for
exhibit purposes.

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6—GENERAL PHYSICS 4 UNITS
Prerequisite: Physics 5
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.

10—INTRODUCTION TO PHYSICS 3 UNITS
Prerequisite: Mathematics 41 and Mathematics 40, 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 4A, 5, or 11.
A brief presentation of some of the more important and usual phenomena in physics with classroom demonstrations and lectures in mechanics, heat, sound, light, electricity, magnetism, and modern physics.

11—ENGINEERING PREPARATORY PHYSICS 3 UNITS
Prerequisite: Mathematics 2, or trigonometry in high school. Mathematics 3 should be taken concurrently. Engineering 41 recommended.
Note: This course may not be taken for credit by students who have completed Physics 4A, 5, or 10. Engineering 41 and Mathematics 3 should be taken concurrently.
A mathematical course in general physics with emphasis on mechanics designed to prepare students for engineering physics (Physics 4A, 4B, 4C), particularly those students who have not had an adequate high school course in physics. Emphasis is upon analysis and solution of problems.

PHYSIOLOGY
See Biology 21.

POLICE SCIENCE
Classes in Police Science are offered as in-service training for law enforcement officers by the Glendale College. Identical sections of in-service Police Science classes are scheduled in the afternoon and evening so that students may continue attendance in spite of shift changes. Some Police Science classes will accept students and adults in the community who plan on going into law enforcement work. Consult Extended Day Schedule for classes open to other than enforcement officers.

1—INTRODUCTION TO LAW ENFORCEMENT 3 UNITS
Prerequisite: None.
The philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, State, and federal law enforcement agencies; survey of professional career opportunities and qualifications required.

3—CRIMINAL LAW I 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
A study is made of the elements of crimes against persons, property, and the State as they are recognized in the penal code and general laws of California including parties in crime, culpability, and incomplete offenses.
POLICE SCIENCE

4—CRIMINAL LAW II 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
In this advanced course, criminal law is studied from the point of view of the peace officer. The elements of the major crimes and laws of particular interest to peace officers, such as the Deadly Weapons Act, are dealt with in detail.

8—POLICE PATROL PROCEDURES 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
This course is 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; stake-outs; arrest and transportation of prisoners; booking of property; marking and handling of evidence; report writing; civil disputes; special events and how to handle riots and crowd control.

10—ADMINISTRATION OF JUSTICE 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
Review of court systems; procedures from incident to final disposition; principles of constitutional, federal, State and civil laws as they apply to and affect law enforcement.

12—CALIFORNIA VEHICLE CODE 3 UNITS
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.

14—TRAFFIC CONTROL 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
A study of the principles and practices of accident investigation including the purposes of investigation, selective enforcement procedures and data use, normal 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.

16—CRIMINAL INVESTIGATION 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
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.

18—JUVENILE PROCEDURES 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
The organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.
20—CRIMINAL EVIDENCE

Prerequisite: Police Science 1 or employment as a peace officer.

A discussion of the statutes and pertinent decisions of the courts of the State of California dealing with the production and presentation of evidence in criminal trials. Special emphasis is given to the law as it affects actual arrest of criminal offenders and subsequent court trials.

A study of the development, importance and purpose of evidence; a discussion of the laws of the Federal Government as they affect the conduct of law enforcement officers. Supplemented by recent decisions of the United States Supreme Court.

22—POLICE CIVIL LAW

Prerequisite: Police Science 1 or employment as a peace officer.

A brief survey is made of the fundamentals of the law of contracts, torts, and personal property, including liens, landlord and tenant, with special reference to their application to police. Emphasis is placed upon legal reasoning and analysis through a study of court decisions. The case method of instruction is used.

24—PHYSICAL ASPECTS OF ARREST

Prerequisite: Open to law enforcement officers only.

Methods and techniques of self-defense, disarmament, use of the baton, civil disturbance formations and the use of tear gas. Also techniques in how to interview suspects, witnesses, etc., how to stop and search automobiles, how to apprehend prowlers, and the important points in how to make misdemeanor and felony arrests.

26—FIREARMS

Prerequisite: Satisfactory completion of 12 units of Police Science courses.

The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of sidearms and shotguns.

30—POLICE ADMINISTRATION

Prerequisite: Police Science 1 or employment as a peace officer.

An analysis of the organization and administration of police departments including city, county, State, and federal law enforcement agencies. Includes problems of professionalism, types of organization, and line and staff functions. Detail studies of personnel programs, including job classification, recruitment procedures, training programs, promotion methods, and supervision of personnel as well as retirement plans, processing of grievances, and personnel discipline.

34—REPORT WRITING

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.

36—INTERROGATION AND LIE DETECTION

Prerequisite: Police Science 1 or employment as a peace officer.

POLITICAL SCIENCE

1—INTRODUCTION TO GOVERNMENT

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

Note: Political Science 1 allows only one unit of credit for students who have completed Political Science 5 or Social Science 32.

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 1 meets the California State requirement in the United States Constitution.

2—MODERN COMPARATIVE GOVERNMENTS

Prerequisite: Political Science 1 or 5, or Social Science 31-32 and a satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

A comparative study of the constitutional principles, governmental institutions, political parties, and recent history of policy and action of selected foreign governments.

3—AMERICAN POLITICAL IDEALS

Prerequisite: None.

Note: It is recommended that the California State requirement in American History be completed prior to enrollment in this course. Political Science 5 allows no credit for students who have completed Political Science 1 or Social Science 32.

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 5 meets the California State requirement in the United States Constitution.

4—AMERICAN STATE AND LOCAL GOVERNMENT

Prerequisite: None.

Note: It is recommended that this course be taken after the completion of the Constitution requirement. This course or Social Science 31-32 is a graduation requirement. No credit is allowed for this course to students having credit in Social Science 31-32.

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.

5—CONTEMPORARY WORLD PROBLEMS

Prerequisite: None.

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.

INTRODUCTION TO SOCIAL SCIENCE

See Social Science 31-32.
PSYCHOLOGY

1—GENERAL PSYCHOLOGY 3 UNITS
Prerequisite: Sophomore standing preferred. A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college and social science classes.

An intensive study of human behavior; emotions, learning, memory, motivation, thinking, and imagination; the individual differences in ability, intelligence, personality, maturation, and development; personal applications.

2—ADVANCED GENERAL PSYCHOLOGY 3 UNITS
Prerequisite: Psychology 1.
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.

10—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, inter-personal relations, career decision making, and educational endeavors).

21—OCCUPATIONAL PLANNING 1 UNIT
Prerequisite: None.
This course is planned to provide 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.

31—MARRIAGE AND FAMILY LIVING 3 UNITS
Prerequisite: None
Basic information for making a successful marriage. Courtship, learning to live together as husband and wife, children, financial and legal problems, conflicts and possible solutions, relatives, family and community relations are studied.
Lectures, discussions, modern films, temperament tests, reading and reports.

41—HOW TO STUDY 1 UNIT
Prerequisite: None.
A nine-week course designed to aid students in improving their study habits. 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.

PRE-SCHOOL CHILD
See Home Arts 35, 36.

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REAL ESTATE

Classes in Real Estate are offered as in-service education for real estate personnel by Glendale College. Adults in the community who plan on going into real estate or wish to obtain increased professional skills may consult the Extended Day Schedule for classes available.

1—REAL ESTATE PRINCIPLES
Prerequisite: None.
A course treating real estate and the economy which includes property rights, real estate and the national economy, real estate and the city land and development, and building and its problems; legal processes and instruments; the real estate market, values, appraisals, sales, rentals, and management; real estate financing including primary and secondary sources of funds, servicing of mortgage loans and foreclosures; and public interest including taxes and insurance, eminent domain and condemnation, planning and zoning, and public and veterans’ housing. Outside speakers from local real estate offices.
Lecture 3 hours.

3—REAL ESTATE ECONOMICS
Prerequisite: Real Estate 5 or license.
Offers a study of the economic aspects of real estate and land use and is designed to provide a grasp of the dynamic factors which create values in real estate. Especially valuable as a background course and as a prerequisite for more specialized courses relating to specific operating procedures and techniques in the several phases of the real estate industry.
Lecture 3 hours.

5—REAL ESTATE PRACTICE
Prerequisite: Real Estate 1 or license.
A course designed for the real estate salesman as a comprehensive study of the techniques of operating a real estate business with emphasis on the daily activities of brokers and salesmen. Topics covered: the real estate business, the real estate office, listings, appraising, prospecting, advertising, the selling process, closing the sale and escrow, financing real estate, exchanges and specialized brokerage, income properties, property management and leasing, taxes and real estate transactions, land utilization, and professional and public relations.
Lecture 3 hours.

7—LEGAL ASPECTS OF REAL ESTATE
Prerequisite: Real Estate 1 or 5 or license.
A practical applied study of California real estate law. Designed to emphasize the more complete aspects of ownership, use and transferability of real estate as encountered by brokers and others who deal with real property.
Lecture 3 hours.

9—REAL ESTATE FINANCE
Prerequisite: Real Estate 7 or license.
A course designed for the real estate man covering the economics of finance, sources of mortgage money, the terms under which different financing should be used, sources of funds, mathematics of real estate finance, appraisal for financing purposes, etc.
Lecture 3 hours.
11—REAL ESTATE APPRAISAL (1) 3 UNITS

Prerequisite: Real Estate 5 or license.
A first course in appraisal confined largely to residential property plus an introduction to investment valuation. Methods and techniques for determination of value for load and insurance purposes. Case study situations are used and actual field work in appraising is undertaken where feasible. Lecture 3 hours.

SCIENCE

31—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.

SOCIAL SCIENCE

31—INTRODUCTION TO SOCIAL SCIENCE 4 UNITS

Prerequisite: None.

Note: Social Science 31-32 allows only six units of credit for students who have completed Political Science 1 or 5, and only seven units for students having credit in Political Science 6.

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 sociology, economics, and political science. 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 problems, and to obtain a realistic view of the total scene. This course (if both semesters are completed) meets the California State requirements in American History, the American Constitution, and State and Local Government.

32—INTRODUCTION TO SOCIAL SCIENCE 4 UNITS

Prerequisite: Social Science 31.

Note: Social Science 31-32 allows only six units of credit for students who have completed Political Science 1 or 5, and only seven units for students having credit in Political Science 6.

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 sociology, economics, and political science. 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 problems, and to obtain a realistic view of the total scene. This course (if both semesters are completed) meets the California State requirements in American History, the American Constitution, and State and Local Government.
41—STUDENT LEADERSHIP

Prerequisite: None.

Note: Open to all students interested in developing leadership skills. Officers of all student organizations are urged to enroll.

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.

SOCIOLOGY

1—INTRODUCTION TO SOCIOLOGY

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "C" average in high school or college social science classes.

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.

2—INTRODUCTION TO SOCIOLOGY

Prerequisite: Sociology 1.

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.

SPANISH

1—BEGINNING SPANISH

Prerequisite: A satisfactory grade in the English Placement Examination or a grade of "B" or better in English 41 or a grade of "C" or better in English 21.

Note: This course may not be taken for credit by students who have completed two years of Spanish in high school with grades of "C" or better within the past two years.

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 the regular class hours, the student must spend two half-hour periods a week in the laboratory.

2—BEGINNING SPANISH

Prerequisite: Spanish 1, or two years of Spanish in high school completed within the past two years.

Note: This course may not be taken for credit by students who have completed three years of Spanish in high school with grades of "C" or better within the past two years.

This course 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.
3—INTERMEDIATE SPANISH  
4 UNITS  
Prerequisite: Spanish 2, or three years of Spanish in high school completed within the past two years.  
*Note:* This course may not be taken for credit by students who have completed four years of Spanish in high school with grades of “C” or better within the past two years.  
This course 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.

4—INTERMEDIATE SPANISH  
4 UNITS  
Prerequisite: Spanish 3, or four years of Spanish in high school completed within the past two years.  
A continuation of Spanish 3 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.

**SPEECH**

3—PUBLIC SPEAKING  
3 UNITS  
Prerequisite: A satisfactory grade in the English Placement Examination or a grade of “B” or better in English 41 or a grade of “C” or better in English 21.  
Emphasis is placed upon organization and delivery of the complete speech given as a term project. Short exercises and informal talks are utilized in the development of rhetorical skills. This course satisfies speech requirements of those expecting to transfer to specialized and professional work in colleges and universities.

4—PUBLIC SPEAKING  
3 UNITS  
Prerequisite: Speech 3.  
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.

21—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 simple speeches.

22—FUNDAMENTALS OF SPEECH  
2 UNITS  
Prerequisite: Speech 1.  
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 simple speeches.

**STATISTICS**  
See Economics 7.
SUPERVISORY TRAINING

SUPERVISORY TRAINING

An Extended Day training program especially for foremen, supervisors, lead-
men, and other group leaders in business and industry. The purpose of the
program is to supplement job experience with the best in supervisory train-
ing. For information about classes offered each semester consult the Extended
Day Schedule of Classes.

1—ELEMENTS OF SUPERVISION 3 UNITS
Prerequisite: None.
A basic, introductory course covering in general terms the total responsibil-
ities of a supervisor, such as organization, duties and responsibilities, human
relations, grievances, training, rating, promotion, quality and quantity con-
trol, management-employee relations, safety.

2—BASIC PSYCHOLOGY FOR SUPERVISORS 2 UNITS
Prerequisite: Supervisory Training 1.
Course to assist the supervisor in understanding the people with whom he
works, with emphasis on the psychological aspects, perceptions, learning
processes, emotions, attitudes and personalities, etc.

3—HUMAN RELATIONS (Developing Supervisory Leadership) 2 UNITS
Prerequisite: Supervisory Training 2.
To show the practical applications of basic psychology in building better
employer-employee relationships by studying human relations techniques.

4—SUPERVISOR'S RESPONSIBILITY FOR
MANAGEMENT OF PERSONNEL 2 UNITS
Prerequisite: Supervisory Training 1.
Personnel techniques for which the supervisor is partially responsible and for
which he should have some training. Selection, testing, placement, orienta-
tion, training, counseling, merit rating, promotion, transfer, and training for
responsibility.

5—ORGANIZATION AND MANAGEMENT 3 UNITS
Prerequisite: Supervisory Training 1.
The supervisor's responsibility for planning, organizing, directing, control-
ing, and co-ordinating. Teaches the supervisor these basic functions of an
organization and his responsibility for carrying out these objectives in ac-
cordance with the organization's plan. Establishes lines of authority, func-
tions of departments or units, duties and responsibilities, policies and pro-
cedures, rules and regulations, etc.

6—LABOR-MANAGEMENT RELATIONS 3 UNITS
Prerequisite: Supervisory Training 1.
The history and development of the labor movement. The development of
the National Labor Relations Acts, the Wagner Act, the Taft-Hartley Act.
The supervisor's responsibility for good labor relations. The union contract
and grievance procedure.

7—INDUSTRIAL ECONOMICS 2 UNITS
Prerequisite: Supervisory Training 1.
Significant economic facts. Development of a critical attitude toward indus-
trial economics. Institutions and practices that determine our social environ-
ment. Management-supervisory employee relationships to economy and local
industry.
8—WORK SIMPLIFICATION
Prerequisite: Supervisory Training 1.
The supervisor's responsibility for job methods improvement. The basic principles of work simplification. Administration and the problems involved. Motion study fundamentals for supervisors. Time study techniques.

9—COST CONTROL FOR SUPERVISORS
Prerequisite: Supervisory Training 1.
How costs are determined 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, control of time, etc.

10—JOB ANALYSIS FOR WAGE ADMINISTRATION
Prerequisite: Supervisory Training 1.

11—ORAL COMMUNICATIONS (English)
Prerequisite: Supervisory Training 1.

12—WRITTEN COMMUNICATIONS FOR SUPERVISORS
Prerequisite: Supervisory Training 1.

13—SAFETY TRAINING AND FIRE PREVENTION
Prerequisite: Supervisory Training 1.

14—DEVELOPING EMPLOYEES THROUGH TRAINING
Prerequisite: Supervisory Training 1.
The supervisor's responsibility for developing employees through training. Orientation and induction; vestibule and on-the-job techniques. Job instruction training principles, apprenticeship training, technical training, supervisory training and management development. Use of outside agencies; advisory committees.
SUPervisory Training—Technical Education

15—Management Control and the Supervisor  2 Units
Prerequisite: Supervisory Training 1.
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, control over personnel, etc.

Technical Education

11—Sheet Metal Apprentice Training  (See Note)
Prerequisite: Employment as an indentured apprentice.
Note: This course may be taken for three units each semester for a total of eight semesters granting a maximum of twenty-four units of credit.
A four-year course designed to provide the related instruction for apprentices in the sheet metal trades covering related mathematics, blueprint reading, layout and pattern drafting, tools and machines, shop practice, employer-employee relations, state and federal laws affecting workers.

43—Technical Education Mathematics  2 Units
Prerequisite: A satisfactory grade on the Mathematics Proficiency Examination or Mathematics 50.
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. This course will fulfill the mathematics requirements for the Associate in Arts Degree.

44—Technical Education Mathematics  3 Units
Prerequisite: Technical Education 43 or a satisfactory grade on the Mathematics Proficiency Examination, plus Mathematics 41 or one year of high school algebra.
A course covering the application of plane trigonometry solving both right and oblique triangles, logarithms, slide rule, and the use of mathematical tables.
Lecture 3 hours.

45—Applied Technical Physics  3 Units
Prerequisite: A satisfactory grade on the Mathematics Proficiency Examination or Technical Education 43 or Mathematics 50.
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.

46—Material 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. Testing of materials by the destructive and non-destructive methods and the physical properties of materials.
47—JEWELRY AND METAL DESIGN
Prerequisite: None.

Note: This course may be entered for one unit of credit after the beginning of the semester.

The use and knowledge of hand tools, equipment and the various materials such as gold, silver, copper, brass, hard and soft solders. The study and uses of the various processes in casting, Sand and the Lost Wax Processes. Techniques in working the metals by the hand wrought process. The study of and the cutting of precious and semiprecious stones in cabochon techniques.

48—JEWELRY AND METAL DESIGN
Prerequisite: Technical Education 47.

Advanced studies in metal design, Lost Wax Process and wax duplication. The identification of precious and semiprecious metals and stones. Art of facet cutting is emphasized.

INDUSTRIAL ENGLISH
See English 31-32.

TECHNICAL ILLUSTRATION

65—BASIC TECHNICAL ILLUSTRATION
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.

66—BASIC TECHNICAL ILLUSTRATION
Prerequisite: Technical Illustration 65.

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, an 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.

67—TECHNICAL ILLUSTRATION
Prerequisite: Technical Illustration 66.

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.

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.
68—ADVANCED TECHNICAL ILLUSTRATION

Prerequisite: Technical Illustration 67.

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 decisions are necessary in student's approach to visualization of class problems which have underlying requirement of both mechanical and artistic training. Lectures as required by assignments. Laboratory 15 hours.

69—TECHNICAL DESIGN ILLUSTRATION

Prerequisite: Technical Illustration 67.

This course 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 projecturals, exhibits, industrial design models, displays, and technical brochures. Course also covers lettering and type layout plus reproduction methods and processes used in preparation of graphics. Latest industrial art methods and techniques are studied in order to achieve economy, speed, and accuracy. Laboratory 15 hours.
THEATER ARTS

3—FUNDAMENTALS OF ACTING (VOCAL INTERPRETATION)  2 UNITS

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.

4—FUNDAMENTALS OF ACTING (BODY CONTROL)  2 UNITS

Prerequisite: Theater Arts 3.
Theater Arts 4 deals with the development of bodily control and interpretation and the integration of a controlled voice and body.

5—THEATER ARTS WORKSHOP  (SEE NOTE)

Prerequisite: Theater Arts 3-4 either completed or in progress, or consent of instructor.
Note: The student may take Theater Arts 5 for 1-3 units each semester for a total of 12 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. Courses are to be taken in sequence.
Students enrolled in this course will be formed into a company to present the Glendale 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.

9—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.

10—STAGE MAKE-UP  1 UNIT

Prerequisite: Theater Arts 9.
A continuation of Theater Arts 9 with emphasis on unusual character make-up.

21—STAGE SCENIC DESIGN  2 UNITS

Prerequisite: None.
A practical course in instruction in the fundamentals of designing stage scenery. All the sets used in Glendale College productions are designed by this class. Some ability in art, costuming, or theater techniques is helpful.

22—STAGE SCENIC DESIGN  2 UNITS

Prerequisite: Theater Arts 21.
A continuation of Theater Arts 21 with more emphasis on originality of design.
23—COSTUME CONSTRUCTION

Prerequisite: Home Arts 17 and/or Home Arts 11. (Home Arts 17 may be taken concurrently.)

Note: Students may earn a maximum of four units in one semester for a maximum total of 16 units. This course is within the administrative jurisdiction of the Fine and Applied Arts Division.

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.
31—TECHNICAL STAGE (SEE NOTE)

Prerequisite: None.

Note: The student may take Theater Arts 31 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 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 5.

34—PRACTICAL AND THEORETICAL ASPECTS OF STAGE LIGHTING 2 UNITS

Prerequisite: Theater Arts 31 (9 units) and the consent of the instructor.

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 balance and rhythm with regard to color, light and shadow, and mass.

Laboratory 4 hours.

35—SOUND RECORDING 1 UNIT

Prerequisite: Experience with sound equipment.

A practical course in the operation and maintenance of tape disc-recording equipment in connection with radio production.

36—SOUND RECORDING 1 UNIT

Prerequisite: Experience with sound equipment.

A continuation of Theater Arts 35 with emphasis on performance in connection with broadcast programs and public address systems.

VOCCATIONAL NURSING

1—NURSING FUNDAMENTALS - VOCATIONAL NURSING 6 UNITS

Prerequisite: Acceptance into course.

Study leading to understanding of the principles of mental and physical health and the maintenance of health; and the understanding of disease and its treatment. Study leading to knowledge of health services and resources in the local region, and the role of nursing in these health services. Development of basic interpersonal, technical, and manual nursing service competencies as required in most conditions of illness.

Lecture 60 hours, laboratory 138 hours.

2—MEDICAL - SURGICAL - VOCATIONAL NURSING 10 UNITS

Prerequisite: Satisfactory score in the Pre-registration Examinations.

Study of normal conditions of the systems of the body and the care of children, adults and aged persons with abnormal medical and surgical conditions of these systems.

Lecture 120 hours, laboratory 276 hours.
3—MEDICAL - SURGICAL - VOCATIONAL NURSING 10 UNITS

Prerequisite: Completion of the first semester in vocational nursing and registration for all courses in the second semester.

Intermediate study of normal conditions of the systems of the body and the care of children, adults and aged persons with abnormal medical and surgical conditions of these systems.

Lecture 120 hours, laboratory 276 hours.

4—OBSTETRICS AND CARE OF THE NEWBORN - VOCATIONAL NURSING 6 UNITS

Prerequisite: Completion of the first semester in vocational nursing and registration for all courses in the second semester.

Study leading to understanding of the relationship of the productive process to health and family life, and to knowledge and understanding of principles, processes and procedures necessary for satisfaction of the nursing needs of the obstetrical patient and the newborn.

Lecture 60 hours, laboratory 138 hours.

5—MEDICAL - SURGICAL - VOCATIONAL NURSING 11 UNITS

Prerequisite: Completion of the first semester in vocational nursing and registration for both courses in the summer session.

Study of normal conditions of the systems of the body and the care of children, adults, and aged persons with medical and surgical conditions of these systems. Total care of patients with abnormal conditions of the systems of the body will be part of the experience this semester.

Lecture 110 hours, laboratory 253 hours.

WELDING

17—GENERAL WELDING (IA) 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.

18—GENERAL WELDING (IIA) 3 UNITS

Prerequisite: Welding 17.

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.

ZOLOGY

See Biology 13-14.
Programs
For Transfer Students

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 junior 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 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. As an alternative to making up all high
school subject deficiencies, an applicant may be admitted on the basis of a
record showing completion of at least 56 units of transfer courses main-
taining a specified grade-point average and completing all of the subjects
required for junior standing in a school or college of the university.

TRANSFERS TO THE UNIVERSITY OF CALIFORNIA

An applicant from the junior 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 Uni-
versity of California UNDERGRADUATE ADMISSIONS CIRCULAR for
details.

ADMISSION IN ADVANCED STANDING

These requirements will vary in accordance with the high school record of
the applicant. All applicants, however, must present from the last accredited
institution (a) a statement of good standing, and (b) an academic record
with a grade-point average* of “C” or better. If the record established in
any one accredited institution is below a “C” (2.0) average, an additional
unit and scholarship requirement may be imposed on subsequent credit
completed to offset the deficit incurred. In addition, the applicant must
meet one of the following conditions:

1. An applicant who was eligible for admission to the University in
   freshman standing (see below) may be admitted at any time he has
   established an over-all grade-point average of “C” or better in trans-
   ferable courses.

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2. An applicant who was ineligible for admission to the University in freshman standing, but whose only deficiency arose from not having studied one or more of the required high school subjects, may be admitted when (a) he has satisfied, by appropriate courses, with "C" or better, the subject requirements for admission to freshman standing (see below), and (b) he has established an over-all grade-point average of "C" or better in transferable courses.
(See also admissions circular, c.)
Exception: deficiencies in subject requirements will be waived in an amount not exceeding 2 high school units if the applicant presents a minimum of 56 units passed with a grade-point average of 2.4 or better. Subject deficiencies in excess of 2 units must be satisfied with "C" or better.

3. An applicant who was ineligible for admission to the University in freshman standing because of low scholarship or a combination of low scholarship and incomplete subject preparation (omission, or by grades of "D" or lower) may be admitted when (a) he establishes a minimum of 56 units passed with a grade-point average of 2.4 or better and (b) he satisfies the subject requirements, with "C" or better, for admission to the University in freshman standing (see below) except that subject deficiencies will be waived in an amount not exceeding 2 high school units.

ADMISSION IN FRESHMAN STANDING
Completion of the following subjects, and a "B" average in work completed in grades 10 to 12 with no grade less than "C" in these subjects in grades 9-12.

(a) History (U. S. History or U. S. History and Civics) .........1 unit
(b) English .....
(c) Mathematics (college preparatory courses in subjects such as algebra, geometry, trigonometry, calculus, elementary functions, matrix algebra or courses combining these topics) .....
(d) Science (a third or fourth year course with laboratory) .......1 unit
(e) Foreign Language (in one language) .....
(f) Additional .....

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, but the units and grade points count each time the course is taken. 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

The requirement for junior standing is the completion of not less than 60 units of college work. Following are the breadth requirements in the College.

a. General University Requirements:
   English Subject A—Students completing English 1 in Glendale College with grade of "C" or better satisfy this requirement.
b. A year course in English reading and composition, normally in the freshman year.
   English 1-2

c. Foreign Language
   Completion of the third course.

d. Natural Science
   At least 12 college units. The 12 units must include at least one course from Group A and one from Group B.

   Group A:
   Chemistry 1, 10
   Physics 4A, 5, 10, 11

   Group B:
   Biology 1A

   Group C:
   Astronomy 1
   Biology 1B, 10, 12, 13, 14, 20, 21
   Chemistry 2, 5
   Geography 1
   Geology 1, 2
   Mathematics 3, 4, 14, 15, 16
   Paleontology 1
   Physics 4B, 4C, 6

e. Social Science
   At least 12 units (History limited to 6 units).
   Anthropology 2
   Economics 1, 2, 11
   Geography 2, 5, 6
   History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
   Political Science 1, 2, 10
   Psychology 1
   Social Science 31, 32
   Sociology 1, 2

f. Humanities
   Completion of four courses selected from at least two groups, including not more than two courses in history and one course in performing arts.

   Group A:
   Art 1, 1B, 2, 2B
   Performing arts: Art 3A, 3B, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 23, 24
   Music 10, 11, 12, 13, 14, 20, 25, 26
   Performing arts: Music 30, 31A-31B, 32, 33, 44, 45, 51, 52
   (Each course must be repeated at least once in order to complete a course for the requirement.)

   Group B:
   English 5, 6, 19, 20
   English 22-23 (The sequence completes one course.)
   Performing arts: English 7
   Performing arts: Theatre Arts 4

   Group C:
   History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
   Philosophy 1, 2, 15, 16

UNIVERSITY OF CALIFORNIA, DAVIS
COLLEGE OF LETTERS AND SCIENCE

The requirements 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 1 in Glendale College with grade "C" or better satisfy this requirement.
   American History and Institutions—History 17-18 in Glendale College satisfies this requirement.
b. A year course in English reading and composition, normally in the freshman year, completed prior to July 1, 1988.

After July 1, 1988, all students will satisfy this requirement by passing an examination in English composition to be taken at Davis no earlier than the final quarter of the sophomore year.

c. Foreign Language

The equivalent of 12 units in one foreign language. High school work in foreign language, when successfully validated by one or more Glendale College courses or by examination taken at Davis, will satisfy this requirement in part or in whole.

d. A total of 36 units from the Humanities, Social Sciences, and Natural Sciences areas with 14 units in each of two of these groups and 8 units in the third.

1. Humanities
   - Art 1, 2, 2B, 3A, 3B, 4, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18
   - English 5, 6, 19, 20, 22, 23, 24, 25, 26
   - English 7
   - French 4
   - German 4
   - History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
   - Music 11, 12, 13, 20, 25, 26, 30, 31A-31B, 32, 33, 41, 51
   - Philosophy 1, 2, 15, 16
   - Spanish 4
   - Speech 3, 4
   - Theater Arts 3, 4

2. Social Science
   - Anthropology 2
   - Economics 1, 2, 11
   - Geography 2, 5, 6
   - Political Science 1, 2, 5, 10
   - Psychology 1, 2
   - Social Science 31, 32
   - Sociology 1, 2

3. Natural Science
   - Astronomy 1
   - Biology 1A, 1B, 10, 12, 13, 14, 20, 21, 22, 37
   - Chemistry 1, 2, 5, 10
   - Geography 1
   - Geology 1, 1L, 2, 2L
   - Mathematics 3, 4
   - Mineralogy 1
   - Paleontology 1
   - Physics 4A, 4B, 4C, 5, 6, 10, 11

UNIVERSITY OF CALIFORNIA, IRVINE

The Academic Plan. The faculty at the University of California, Irvine, believes that education is a continuing process, not the simple sum of a number of years of formal work, and that a university fulfills its purpose when its students learn how to learn. By not stipulating a large and complex system of university and college requirements, the faculty indicates that it envisages many avenues by which the student may reach the proper goals, and that it encourages each student to avoid extremes of narrow specialization and superficial generalization.

All undergraduate students at UCI are enrolled in the College of Arts, Letters, and Science, which is comprised of five divisions: Biological Sciences, Fine Arts, Humanities, Social Sciences, and Physical Sciences. The sole exception is the School of Engineering, which offers undergraduate work only in the junior and senior years.

University Requirements. English 1, or a score of at least 600 on the CEEB Achievement Test in English, or passage of the University Subject A Examination. Completion of the requirement in American History and Institutions
(Social Science 31-32 or History 17-18; or History 5 or 10 or 3-4 or Economics 11, plus Political Science 1 or 5; or passage of the examination offered at the University).

College Requirements. Three 3-unit courses in each of two divisions other than the division of concentration, and six 3-unit courses in a third division other than the division of concentration. (Note that this is a graduation requirement, and need not be completed before transfer.)

Division and Departmental Requirements.

Division of Biological Sciences.
Biology 1A-1B, Physics 5-6, Mathematics 3-4-5-6,
Chemistry 1-2-3, 5-6.
Division of Fine Arts.
Art Department: Art 1, 2, 3A-3B, 4, 5
Dance Department: Theatre Arts 3-4, 5 (at least 4 units), Health and Physical Education 51A-51B.
Drama Department: Theater Arts 3-4, 5 (at least 4 units)
Music Department: Music 10-11-12-13, 25, 26; command of piano; three courses in fine arts outside of the departmental major; participation in chorus, orchestra, or chamber music each year.
Fine Arts (Interdepartmental major). See the University of California, Irvine catalog.
Division of Humanities:
English 1-2, Foreign Language 1-2-3-4; three 3-unit courses in history; two courses in philosophy.
Comparative Literature Department: See the Irvine catalog.
English Department: See the Irvine catalog.
Foreign Language and Literature Department: See the Irvine catalog.
History Department: History 1-2, 17-18, 19-20.
Philosophy Department: Philosophy 1-2.
Division of Physical Sciences:
French, German (or Russian) 1-2-3-4; “ability to express ideas in written English with clarity and precision.”
Chemistry Department: Chemistry 1-2, 3, 5-6; 32 units in mathematics, physics, or the biological sciences, including at least Mathematics 3-4 and Physics 4A-4B.
Mathematics Department: Mathematics 3-4-5-6.
Physics Department: Physics 4A-4B-4C.
Division of Social Sciences:
Philosophy 17; three courses from the following: Anthropology 2, Economics 1, Geography 1, Political Science 1, Psychology 1, Sociology 1.
Pre-Engineering Curriculum:
Required: Mathematics 3-4-5-6, Physics 4A-4B-4C.
Recommended: Chemistry 1-2, two years of the social sciences, German (or Russian) for the students planning graduate study. Before graduation the student must complete nine 3-unit courses from among Fine Arts, Humanities, and Social Science: six courses in one division, three in another.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
COLLEGE OF LETTERS AND SCIENCE

General University and College Requirements
The completion of 80 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 80 units.

a. General University Requirements:
Subject A. An examination in Subject A (English Composition) is required of all entrants at the time of their first registration in the University. Students completing English 1 in Glendale College with grade of "C" or higher satisfy this requirement.
American History and Institutions. Completion of requirements set by Glendale College meets the State requirement.
b. Foreign Language
Sixteen units in one or two languages or their equivalent.
A minimum of two courses (8 units) is required in one language begun at the college level in satisfaction of this requirement.
College credit will not be given for work equivalent to that for which credit was given in high school. The first two University courses in a foreign language will be considered a duplication of two years, the first three University courses a duplication of three years, and the first four University courses a duplication of four years of high-school work. No credit will be allowed for completing a less advanced course after satisfactory completion of a more advanced course in grammar and/or composition. Courses given in English by a foreign-language department will not be accepted in fulfillment of this requirement. College credit for the mother tongue of a foreign student and for its literature is allowed only for courses taken in native institutions of college grade, or for upper division and graduate courses actually taken at the University of California or at another English-speaking institution of approved standing.

c. Mathematics
If the entrance requirement in mathematics has not been completed in the high school, suitable courses to meet the requirement must be taken in University Extension, University of California, or elsewhere, but they will not be counted as part of the 45 courses (180 quarter units) required for the bachelor's degree.
Mathematics 40 and Mathematics 41 taken at Glendale College.

d. English Composition
One course in English composition (English 1) with a grade of "C" or better. This requirement may also be satisfied with a score of 3, 4, or 5 in the CEEB Advanced Placement Test in English, or by passing a proficiency examination in English composition set and administered by the Department of English. To be eligible for this proficiency examination an entering student must have a score of 675 on the CEEB English Achievement Test with a verbal score of 650 on the CEEB Scholastic Aptitude Test, or have a score of 2 on the Advanced Placement Test in English.

e. Physical Sciences
Students majoring in the Life Sciences will take two courses; students majoring in the Humanities and Social Sciences will take three courses; students majoring in the Physical Sciences are exempt from the requirement.
Students will take two or three courses in the following sequence: Physics 4A or 5 or 10 and Chemistry 1 or 10; the third course (if required) may be chosen from Astronomy 1, Geology 1, Mathematics 3; if a student has 8 to 19 semester units in physics and chemistry, he is exempt from a third course.

f. Life Sciences.
Students majoring in the Physical Sciences will take two courses; students majoring in the Humanities and Social Sciences will take three courses; students majoring in the Life Sciences are exempt from the requirement.
Students in the Physical Sciences will take: (1) Biology 1A-1B. Students in the Humanities and Social Sciences will take: (1) Biology 1A-1B; (2) one of the following: Biology 10, 12, 13, 14, 21, 22 (if the full 8 semester units under F, are completed at Glendale College), 37 or Paleontology 1.

g. Social Sciences
Students majoring in the Humanities will take two courses in one social science department; students majoring in the Physical Sciences or Life Sciences will take two courses in one social science department and one course in another social science department; students majoring in the Social Sciences are exempt from the requirement. Students will select the courses to meet this requirement from the following list: Anthropology 2; Economics 1, 2, 11; Geography 2; History 1, 2, 3, 4, 7, 8, 9, 17, 18, 19, 20; Political Science 1, 10; Psychology 1 (third course); Sociology 1, 2.
h. Humanities
Students majoring in the Social Sciences will take two courses either in philosophy or in literature; students majoring in the Physical Sciences or in the Life Sciences will take three courses either in philosophy or in literature; students majoring in the Humanities are exempt from the requirement.

Philosophy. Students in the Social Sciences may take Philosophy 1-2, 15 or 16 (third course).

Students in the Physical Sciences or Life Sciences may take Philosophy 1-2, 16, 17 (third course).

Literature. Students in the Social Sciences may take two courses and students in the Physical Sciences and Life Sciences may take three courses from the following list: (1) English 19, 20; (2) English 5, 6; third course from English 19, 20 (if English 5, 6 is elected) or from English 5, 6 (if English 19, 20 is elected), or a third course from English 22-23.

i. Limited Electives
Every student will take two other courses (any courses for which he has the prerequisites) in art, history, literature, music, or philosophy. These two courses need not both be in the same department.

Only courses offered by a department of history apply.

Breadth Requirements
The pattern of breadth requirements varies according to the student’s major, and may be most easily seen from the following diagram.*

<table>
<thead>
<tr>
<th>Student’s Major Division</th>
<th>Physical Sciences</th>
<th>Life Sciences</th>
<th>Humanities</th>
<th>Social Sciences</th>
<th>Limited Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Sciences</td>
<td></td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Life Sciences</td>
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<td>2</td>
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<tr>
<td>Humanities</td>
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<td>2</td>
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<tr>
<td>Social Sciences</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

For the purposes of these requirements, departmental and interdepartmental majors are classified in the following divisions:

Humanities
- Arabic
- Classics
- English
- French
- German
- Greek
- Hebrew
- Indo-European Studies
- Italian
- Latin
- Linguistics
- Music
- Near Eastern Studies
- Oriental Languages
- Philosophy
- Portuguese
- Scandinavian Languages
- Slavic Languages

- Spanish
- Speech
- Bacteriology
- Botany
- Physical Education
- Premedical Studies
- Psychology
- Psychology-
- Mathematics
- Physical Sciences
- Astronomy
- Chemistry
- Earth Physics and
- Exploration Geophysics
- Geology
- Mathematics
- Meteorology

- Physical Sciences-
- Mathematics
- Physics
- Social Sciences
- Anthropology
- Economics
- Geography
- History
- Latin American Studies
- Political Science
- Presocial Welfare
- Public Service
- Social Sciences for Elementary Teachers
- Sociology

*To meet a breadth requirement, a transfer student may offer a three-semester course which parallels a quarter course at UCLA. One- and two-unit courses are not acceptable for application to these requirements.
UNIVERSITY OF CALIFORNIA, LOS ANGELES
COLLEGE OF FINE ARTS

Requirements for the A.B. degree
Completion of an approved major or curriculum in the College of Fine Arts:

MAJOR IN ART
History of Art* 
Pictorial Arts* 
Design* 

MAJOR IN MUSIC
Composition and Theory 
Ethnomusicology 
History and Literature 
Performance 
Music Education*

MAJOR IN DANCE*

MAJOR IN THEATER ARTS
Theater 
Motion Pictures 
Television-Radio 
Secondary Teaching 
Curriculum*

With the proper selection of courses, teaching credentials are available in the majors and specializations marked with asterisk (*).

a. Completion of General University Requirements:
1. Subject A (English Composition) examination or course. Students completing English 1 in Glendale College with a grade of "C" or better satisfy this requirement.

b. Completion of General College Requirements:
Any course applied on one of the (a) to (e) requirements may not also be applied on another of these requirements.
1. English Composition (English 1-2). At least 6 units, with grade of "C" or better.
2. Foreign Language. At least 12 units in one foreign language, or 16 units in two foreign languages. Without reducing the total number of units required for the bachelor's degree, high school work with grades of "C" or better and not duplicated by college work will count as follows: four units for the first two years together, and four units each for the third and fourth years.

c. Natural Science
At least nine units, including three units each from groups 1 and 2 below.

1. Physical science and/or mathematics
   Astronomy 1 
   Chemistry 1, 2, 3, 5, 6, 10 
   General Science 31 
   Geography 1 
   Geology 1-1L, 2-2L, 1, 2 
   Mathematics 3, 4, 5, 6, 13, 14 
   Mineralogy 1 
   Physics 5, 6, 10, 11

2. Biological science
   Biology 1A, 1B, 10, 12, 13, 14, 20, 21, 22, 30, 37 
   Paleontology 1

At least twelve units, including six units of History of Western Civilization (History 7-8-9), and three units chosen from each of
d. Social Science
At least twelve units, including six units of History of Western Civilization (History 7-8-9), and three units chosen from each of two departments other than history. Courses used by the student to satisfy the American History and Institutions requirement may not be applied on this requirement.
   Anthropology 1, 2
   Economics 1, 2, 11
   Geography 1, 2, 5, 6
   Political Science 1, 2, 5, 6, 10
   Psychology 1, 2, 31
   Sociology 1, 2

e. Humanities
At least twelve units, including six or more units in the arts and six units in literature and/or philosophy:
1. The Arts. May not include courses offered by the student’s major department.
   Art: courses 1-50
   Music: all courses
   Theater Arts: all courses
2. Literature
   English 5, 6, 8, 10, 11, 12, 19, 20, 21
3. Philosophy
   Philosophy 1, 2, 15, 16

UNIVERSITY OF CALIFORNIA, RIVERSIDE
COLLEGE OF LETTERS AND SCIENCE

a. General University Requirements:
1. Subject A—Students completing English 1 in Glendale College with grades of “C” or higher satisfy this requirement.
2. American History and Institutions:
   American History, American Government: History 3-4, 5, 10, 17-18;
   Political Science 1, 5; Social Science 31-32.

b. Subject Requirements:
1. Foreign Language: Completion of Course 3 in one language. (The language requirement may also be met by satisfactory completion of four years of a single foreign language in high school.)
2. English: English 1-2
3. Western Civilization: History 1-2 (recommended), or 7-8, 8-9
4. Natural Science:
   Life Sciences—any two courses, or one five unit course, chosen from the following:
      Biology 1A, 1B, 10, 12, 13, 14, 20, 21, 22, 30, 37, 38
   Physical Sciences—any two courses, or one five unit course, chosen from the following:
      Astronomy 1
      Chemistry 1, 2, 3, 5, 6, 10
      Geology 1-11, 2-2L
      Mineralogy 1
      Paleontology 1
      Physics 4A, 4B, 4C, 5, 6, 10
      General Physical Sciences 31
5. Humanities: Any two courses chosen from the following:
   Art 1, 2, 2B
   English 5, 6, 19, 20, 22, 23
   Music 25, 26
   Philosophy 1, 2
6. Social Sciences: Any two courses chosen from the following:
   Anthropology 1, 2
   Economics 1, 2
   Geography 1, 2, 5, 6
   Political Science 1, 2
   Psychology 1, 2

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7. **Additional Humanities or Social Science Course**: One course from any listed in (5) or (6) above.

8. **Electives**: A minimum of three courses and eight units is required. Any transferable courses outside the major may be selected. Students are urged to use them to satisfy their own personal interests and their intellectual curiosity.

9. **Physical Education**: There are no requirements in physical education; however, a maximum of four units may be counted toward graduation.

*The completion of 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. Examination on the Riverside Campus in American History and Institutions administered by the Committee on American History and Institutions.*

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**UNIVERSITY OF CALIFORNIA, SAN DIEGO**

**MUIR COLLEGE**

John Muir College offers a balanced program of instruction in all of the principal areas of learning. Students may choose among several ways of fulfilling the general education requirements and are expected to assume some responsibility for developing patterns of study that accord with their interests and aspirations. There will be many opportunities for independent study and for direct participation by undergraduates in research and creative work. (See Catalog for Muir College.)

a. **Cultural Tradition**
   - One year in a national culture or history, foreign language literature, world or western civilization; applicable courses include:
     - History 1, 2, 3, 4, 7, 8, 9, 19, 20

b. **Humanities and Fine Arts**
   - One year in most visual arts (NOT ceramics or photography), art appreciation, literature, drama, philosophy, and music.
   - Applicable courses include:
     - Art 1, 1B, 2, 2B
     - English 5, 6, 19, 20
     - Music 10, 11, 12, 13, 14, 20, 25, 26
     - Philosophy 1, 2, 15, 16, 17

c. **Mathematics**
   - At least a year in college-level mathematics.
   - Applicable courses include:
     - For science and mathematics majors—Mathematics 3-4 or 15-16
     - For non-science majors—Mathematics 3, 4, 5, 6, 15, 16, 38

d. **Natural Science**
   - Two years in college-level science.
   - Applicable courses include:
     - Astronomy 1
     - Biology 1A, 1B, 10, 12, 13, 14, 20, 21, 22, 30, 37
     - Chemistry 1, 2, 3, 5, 6, 10
     - Geology 1, 1L, 2, 2L
     - Mineralogy 1
     - Paleontology 1
     - Physics 4A, 4B, 4C, 5, 6, 11
     - Science 31

e. **Foreign Language**
   - Those with credit for Language 4 will be assumed to be proficient and will be exempt from the proficiency exam.

f. **Electives**
   - Appropriate number of units to bring total to 62 semester units or 92 quarter units.

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UNIVERSITY OF CALIFORNIA, SAN DIEGO
REVELLE COLLEGE

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.

It should be understood that the following list of courses is not expected to contain absolute parallels. Three basic levels are involved in the transfer of college courses: the basic transfer of units of credit is decided on a State-wide basis, and is the same on every campus of the University of California; transfer to the satisfaction of breadth requirements is decided upon by the College head—in this case, the Provost of Revelle College, whose office has approved the present list for this purpose; transfer in the satisfaction of prerequisites to upper division courses is decided upon by the appropriate department chairman, who considers each case individually and plans a program to the student's best advantage.

Units

a. Humanities ................................................................. 12
   1. English 1-2
   2. Six additional units from the following:
      English 5, 6, 19, 20
      History 7, 8, 9
      Philosophy 1, 2, 15, 16

b. Physical Sciences ......................................................... 10
   1. Chemistry 1-2
   2. Physics 4A, 4B ......................................................... 9
      (4C recommended for prospective science majors.)

c. Biology ........................................................................... 8
   1. Biology 1A-1B

d. Mathematics .................................................................... 6
   1. Mathematics 3-4 or 15-16 (5, 6 is recommended for prospective science majors)

e. Social Sciences ................................................................ 6
   1. Six units from among:
      Anthropology 2
      Economics 1, 2, 11
      History 1, 2, 3, 4, 5, 10, 17, 18, 19, 20
      Political Science 1, 2, 5, 6, 10
      Psychology 1, 2, 10
      Social Science 31, 32
      Sociology 1, 2

f. Foreign Language .............................................................. 4-16
   1. Through Language 4 ....................................................... 4-16
      (Students with credit for Language 4 will have met the requirement without the necessity of taking the lower division proficiency examination at Revelle College.)

g. Fine Arts ........................................................................ 6
   Art 1, 1B, 2, 2B
   Music 10, 11, 12, 13, 14, 20, 25, 26

h. Electives ........................................................................... 6
UNIVERSITY OF CALIFORNIA, SANTA BARBARA
COLLEGE OF LETTERS AND SCIENCE

a. English 1-2 ............................................................... 6
b. Foreign Language (Ancient or Modern)................................. 0-12
   May be met by completion of Language 3 (third semester).
c. Humanities ..................................................................... 10
   At least one course from each area:
   1. Literature, English 5, 6, 19, 20, 22, 23, 25
   2. Philosophy 1, 16, 17
   3. Fine Arts, History and Appreciation
      Art 1, 1B, 2, 2B
      Music 20 or 25
d. History, Social Sciences and Psychology .................................. 12
   1. History: Any course* ..................................................... 3
   2. Three courses in separate areas from the following: ............... 9
      Anthropology 2
      Economics 1
      Political Science: Any course* 
      Psychology 1
      Sociology 1
e. Natural Science and Mathematics ........................................ 11-12
   1. Biology 1A, 10, 37 ..................................................... 4
   2. Chemistry 1, 10; Physics 4A, 5; Geology 1-1L, 2-2L ............. 5-4
   3. One course from the following: ....................................... 3/4
      Astronomy 1
      Biology 1A, 1B, 10, 13, 14, 20, 21, 22, 37
      Chemistry 1, 2, 3, 5, 10
      Geology 1-1L, 2-2L.
      Mathematics (any transfer course)
      Physics 4A, 5, 10
      Geography 1
f. Physical Education (Activities) ............................................. 1
g. Electives ..................................................................... 10%-16
   1. Four courses outside the major from areas listed above
      including Speech 3.
   2. Three courses outside the major from areas listed above
      including Speech and Religious Studies and one unit
      of Physical Education.

*The attention of the student is directed to the requirement in American
History and Institutions which may be satisfied by certain lower and upper
division courses in history and/or political science, or by non-credit exami-
nation.

CLAREMONT MEN'S COLLEGE

General Requirements—All Majors

a. Humanities
   Required:
   1. History 1-2 or 7-8-9
   2. English 1-2
   3. Language 4

*4. Additional Humanities Courses:
   Philosophy 1, 2, 15, 16
   Art 1, 1B, 2, 2B
   English 5, 6, 19, 20, 22, 25, 26
   Music 20, 25, 26
At least three of the remaining four requirements in humanities must be taken before the last semester of the senior year, but those three may be taken at any time. The four courses must also meet the distribution requirements of: at least one course from each of three of the fields of 1) literature, 2) History, 3) religion or philosophy and 4) fine arts (which included music). At least one course in the pre-modern period (prior to 1600).

b. Social Science
   Required:
   1. Economics 1-2
   2. Political Science 1, or History 17-18
   3. Psychology 1

c. Science and Mathematics
   Required:
   From 1, 2 and 3 choose two laboratory courses.
   1. Chemistry 1, 2, 10
   2. Physics 4A, 4B, 4C, 5, 6, 11
   3. Biology 1A, 1B, 22
   4. Mathematics 3, 4, 5, 6, 15, 16

d. Major Requirements: Major requirements differ with the discipline, and may be obtained from the Registrar's Office.

e. Electives as needed to complete 60 units.

LOYOLA UNIVERSITY OF LOS ANGELES

Units

a. Social Science .................................................................18
   Required courses:
   1. History 17-18
   2. History 1-2
      Political Science 1
      Sociology 1

b. Natural Science ............................................................. 9
   1. At least five units in physical science chosen from the following:
      Astronomy 1
      Chemistry 1, 10
      Geography 1
      Geology 1-1L, 2-2L
      One course (Not more than three units)
      Mathematics 3, Economics 7
      Physics 4A, 4B, 4C, 5, 6, 10 or 11
      Science 31
   2. At least five units in biological science, chosen from the following:
      Biology 1A, 1B, 10, 13, 14, 20, 21, 22
      Paleontology 1

c. The Humanities ...............................................................(Minimum) 9
   Philosophy 1 (Three units are required.)
   Fine Arts (Must be in Department of Music or Art)
   Three units are required. A course should be selected from the following:
   Art 1, 2, 3A, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 33, 34, 39, 40, 47, 48.
   Music 10, 11, 12, 13, 20, 30, 31A-31B, 35, 36, 40, 45, 60, 61, 62, 63.
   English 19-20 (Six units are required.)

d. Communication ................................................................. 9
   Speech 3 (Required)
   English 1-2 (Required) ...................................................... 2
e. Foreign Language ................................................................. 7
f. Health and Physical Education 1 or 2 and 2 units
   Health and Physical Education activity............................... 4
g. Electives
   The student who takes only the minimal number of courses in
each of the above five fields will have accumulated 40
units. He will then complete his 45 units by selecting five
units from among the following:
   Any excess of units earned in meeting the requirements
   of "1" through "5."
   Any of the courses listed in "1" through "5" which
   were not taken to complete the minimum requirements.
   Any basic foreign language courses.
   Any courses from the Natural Sciences; from the Bio-
   logical Sciences if the Physical Sciences requirement
   has been completed; or from the Physical Sciences if
   the Biological Sciences requirement has been com-
   pleted.
   Any of the following:
   Philosophy 2 or Geography 1 or History 1 and 2,
or 7 and 8.

OCCIDENTAL COLLEGE

Students considering transfer into either the sophomore or junior year are
strongly urged to check with the Admissions Office for further information if
needed. They should refer also to the official Occidental College Catalog
for information concerning prerequisites for proposed majors.
TRANSFER STUDENTS SHOULD TAKE THE FOLLOWING COURSES
TO ESTABLISH EQUIVALENCE OF LOWER DIVISION COURSES AT
OCCIDENTAL COLLEGE:

a. English ..................................................................................... 0
   No English is required. However, competence is insisted
   upon. Periodic checks are made on the writing performance
   of all students throughout their four years of undergraduate
   work. Whenever it is felt that writing is falling below stand-
   ard students are remanded to an English class. To establish
   this competence, a course in Freshman English is recom-
   mended by a counselor.

b. Foreign Language ..................................................................... 12

c. Sciences:
   Science majors should refer to the Catalog for specific pre-
   requisites. Non-science majors should plan to take at least
   three semesters of science, including one semester each of:
   (1) General Physics; (2) either Geology or Chemistry; and
   (3) Biology. Survey courses emphasizing the inter-rela-
   tionships of sciences may be substituted.
   Biology 1A .............................................................................. 3 or 5
   Geology 1-1L or Chemistry 1 or 10 .................................... 3 or 5
   Physics 5 or 10 or 11 ......................................................... 3
   Science 31 ............................................................................ 4

d. Physical Education:
   Activity courses in each term of the freshman year including
   if possible, Swimming and Basic Skills.

e. Religion:
   At least 4 units of Old and New Testament history and litera-
   ture. This work may be postponed until the junior year if
   necessary.
f. History of Civilization:
The two-year course in History of Civilization in the freshman and sophomore years at Occidental College is a combination of Humanities and Social Sciences and is an intensive, integrated approach to the development of Western culture. Courses which can be used as substitutes are listed below (all of them must be completed):
Art History or Music History: At least three semester units.
Applied Art or Applied Music may not be substituted.
Art 1, 1B or 2, 2B or Music 20 or 25 ................................. 3
Literature: At least 5 semester units, or equivalent. World Literature is preferred. Students who have credit for a 6-unit course in Reading and Composition equivalent to the University of California course 1A-1B may complete this requirement with one 3-unit course in World Literature, or equivalent.
English 2 and 19 or English 19-20 ......................................... 6
History and Political Science: (1) a year-course either in Western Civilization or European History and (2) History, Economic History, or Political Science acceptable in fulfillment of California State Requirements in United States History, United States Constitution, and California State and Local Government.
History 1-2 or 7-8, 7-9, 8-9 .................................................. 6
History 17-18; or Political Science 1 or 5 and History 5 or 10 or Economics 11; Political Science 6 with any of the above or
Social Science 31-32 ......................................................... 5-8
Philosophy: At least 3 semester units, or equivalent, in Introduction.
Philosophy 1 ....................................................................... 3

Please Note: A student intending to transfer into the sophomore class at Occidental College should make every effort to include the following courses (as described above) in his first year: Freshman Composition and Literature, Foreign Language, Physical Education, Art or Music History, Western Civilization or Ancient History (one semester), and United States Constitution. A student intending to transfer into the junior class should, if possible, complete all of the courses outlined above. Please note that a maximum of 64 units of lower division credit, exclusive of physical education, is accepted on transfer.

PACIFIC OAKS COLLEGE

The two-year upper division program leads to the Bachelor of Science Degree in Child Development, Psychology, or Sociology. Admission in junior standing requires completion of not less than 60 units of acceptable college work with at least a "C" grade average.
Glendale College courses which satisfy the lower division general education requirements are listed below:

a. Oral and Written Expression ................................................. 6
   English 1; English 2 or Speech 3.

b. Natural Sciences and Mathematics ..................................... 12
   1 and 2 required*. At least one semester of a laboratory science is required.
   1. One of the following:
      Biology 1A, 14, 20, 21
   2. One of the following:
      Any course in Chemistry or Physics
      Geology 1-1L, 2-2L.
      Science 31
3. Astronomy 1
   Biology 1B, 10, 12, 13, 37
   Economics 7
   Geography 1, 2
   Mathematics (any course numbered through 38)
   Mineralogy 1
   Paleontology 1

c. Social Sciences ................................................................. 15
   Required: one course from each group listed.
   1. American Institutions
   2. State and Local Government
   3. American History
      (See Glendale College Graduation Requirements.)
   4. Psychology 1
   5. Sociology 1 or Anthropology 2
   6. One or more additional courses selected from:
      Anthropology 2
      Economics 1, 2, 11
      Geography 5, 6
      History
      Political Science
      Psychology 2
      Social Science 31, 32
      Sociology 1, 2

d. Humanities ................................................................. 12
   1 and 2 required.
   1. A full year course selected from:
      Art 1-2, 1-1B, 2-2B, 1B-2B
      English 5-6, 19-20
      History 1-2, 7-8, 7-9, 8-9
      Music 25-26
      Philosophy 1-2
   2. Any course listed in 1, but not in the same department as that in
      which the requirement for 1 was met; Art 3, 4; Music 10, 11, 12,
      13, 20; performance or studio courses in Art, Music, Theater Arts
      (maximum 4 units); Philosophy 15; English 2, 22, 23, 25, 26;
      second-year foreign language.

e. Electives
   A maximum of 15 units of lower division electives taken in courses
   other than those listed in the above areas with the addition of health
   and physical education (maximum 4 units) and foreign language
   will be accepted.
   To meet minimum requirements for Children’s Center Permit: Home
   Arts 35, 40, 41.

*The requirements in both 1 and 2 may be met by a full year laboratory
course (8 or more units) in either 1 or 2, provided a laboratory course
in the other area was taken in grades 11 or 12. However, if a college
course in 1 is not taken, a waiver examination in human biology must be
passed at Pacific Oaks.

UNIVERSITY OF SOUTHERN CALIFORNIA
COLLEGE OF LETTERS, ARTS, AND SCIENCES

The requirements for junior standing are the completion of 64 units of
transfer work of acceptable quality. Other factors, e.g., course distribution
of work presented, strength of recent record, physical facilities of the Univer-
sity, and the score on the required College Entrance Examination Board
Scholastic Aptitude Test, will affect admission.
It is recommended that a student complete the requirements listed below.

### Minimum Units

<table>
<thead>
<tr>
<th>Minimum Units</th>
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<tbody>
<tr>
<td>General</td>
</tr>
<tr>
<td>English 1                                             3</td>
</tr>
<tr>
<td>English 2                                             3</td>
</tr>
<tr>
<td>United States History and Institutions (Any pattern of courses which meets the requirement in United States History, United States Government, and California Government) (entire requirement)</td>
</tr>
<tr>
<td>One Foreign Language</td>
</tr>
<tr>
<td>Humanities</td>
</tr>
<tr>
<td>Arts. Choose from Art 1, 1B, 2, 2B; Music 20, 25, 26</td>
</tr>
<tr>
<td>Literature. Choose from English 5, 6, 19, 20, 22, 23, 25</td>
</tr>
<tr>
<td>Philosophy-Religion. Choose from Philosophy 1, 2, 15, 16</td>
</tr>
<tr>
<td>Electives from above Humanities courses to make a total of at least 11 units</td>
</tr>
<tr>
<td>Natural Sciences</td>
</tr>
<tr>
<td>Choose from Astronomy 1; Biology 1A, 1B, 10, 12, 13, 14, 20 21, 22, 30 or 37; Chemistry 1, 2, 10; Geology 1-11, 2-21; Paleontology 1; Physics 4A, 4B, 4C, 5, 6, 10; Science 31</td>
</tr>
<tr>
<td>Social Sciences</td>
</tr>
<tr>
<td>Courses in History. Choose from History 1, 2, 7, 8, 9</td>
</tr>
<tr>
<td>Courses in other Social Sciences. Choose from Anthropology 2; Economics 1, 2; Geography 2; Psychology 1, 2; Sociology 1, 2</td>
</tr>
<tr>
<td>Electives from above Social Sciences courses to make a total of at least 7 units</td>
</tr>
<tr>
<td>Physical Education Activities (Including Fundamentals of Physical Efficiency, and Swimming) in four different semesters (4 semesters)</td>
</tr>
<tr>
<td>Students who transfer with 60 or more units are exempt from the physical education requirement.</td>
</tr>
</tbody>
</table>

*A student with less than 12 units who wishes to continue in the same language should consult the department adviser. He may, if he wishes, take the University Placement Test, and if he passes it at a level equivalent to the completion of Course III the requirement will be considered met. A student who wishes to satisfy the requirement in a foreign language in which he has earned high school units, but in which he has not completed any college course, must take the University Placement Test. Credit will be allowed for high school language repeated in college beginning at the point at which the student is placed by the test. If he earns a sufficiently high score in the test, the requirement will be considered met.*

### STANFORD UNIVERSITY

#### a. Basic requirements for all students

- **Freshman English** (Composition and Literature) English 1-2.
- **History of Western Civilization**
  - History 1-2 (In addition one quarter of Western Civilization at Stanford) and courses to fulfill United States History, United States Constitution, and State and Local Government requirements for graduation.
- **Foreign Language or Mathematics**
  - Foreign Language—French 1, 2, 3, 4 or Spanish 1, 2, 3, 4 or German 1, 2, 3, 4
  - **Note:** A student who has completed only French 3, Spanish 3, or German 3 will be required to take a placement test to determine whether or not additional work will be required.
  - Mathematics—Mathematics 3, 4, 5, 6
Group Activity (Students who have had military service may be exempt from the group activity requirement)

Physical Education—2 years

b. Area requirements for all students—all students must complete the following requirements in the two areas in which they are not majoring. (Students are exempt from area requirements in the area in which they are majoring.)

   Humanities—a minimum total of six units selected from General Studies Courses in any two of the following three fields:
   1. Fine Arts—
      Music 20, 25, 26
      Art 1, 1B, 2, 2B, 3A, 3B or 4, 5, 6
      Speech 3
   2. Philosophy 1, 2
   3. Literature—
      English 19, 22, 25, 26

Social Sciences—2 courses selected from the following:
   Economics 1, Psychology 1,
   Sociology 1, Anthropology 2.

Natural Sciences—students who have not taken biology in high school will take Biology 1A-1B or 13-14. Those who have had biology but no physical science in high school will take one of the following complete series:
   1. Chemistry 1-2
   2. Physics 4A, 4B, 4C
   3. Physics 5-6

THE CALIFORNIA STATE COLLEGES

Admission Regulations

Admission standards are prescribed by the Board of Trustees of the California State 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 during the last three years of high school or the last three years excluding the final term and results of either the American College Test or the Scholastic Aptitude Test as specified by the college. 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 1/3 of California high school graduates. For 1967-1968, the minimum required eligibility index is 3072 (grade point average multiplied by 800, plus the total SAT score) or 741 (grade point average x 200 + 10 x 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 1/6 of California high school graduates. The computation is identical, but the minimum index required is 3402 with SAT, or 826 with ACT. The eligibility index may be adjusted from year to year. Thus, it is important that prospective students consult the latest college catalog.

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 State College provided they have maintained a grade point average of at least 2.0 in all college work attempted.

2. Students not eligible for admission as first-time freshmen may be admitted to a State College provided they have completed at least 60 semester units of 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. Entrance test requirements vary from college to college. In general, all lower division applicants are expected to take the same test as is required for freshmen. Students will be instructed as to specific requirements at the time of application.

CHICO, DOMINGUEZ HILLS, FULLERTON, HAYWARD, HUMBOLDT, SACRAMENTO, SAN BERNARDINO, SAN DIEGO, SAN FRANCISCO, SONOMA, STANISLAUS

A student expecting to transfer to one of the above State Colleges is advised to examine carefully the current catalog of the particular college he expects to enter and to follow as closely as possible its particular recommendations for study program. The following requirements are common to all, and it is recommended that these be fulfilled as far as possible in the lower division.

General Education requirements:*  

a. Social Science, 9 to 12 units
   The social sciences include required instruction in United States History, Constitution and California State and Local Government, and courses in the fields of economics, geography, history, political sciences, sociology, and similar fields. Courses must be selected from two or more of these fields.

b. Natural Sciences, 9 to 12 units
   Natural Sciences include the fields of astronomy, biology, chemistry, physical geology, physics, and similar fields. At least one course must be selected from a physical science and one from a life science, and one laboratory course is usually required.

c. Literature, Philosophy and the Arts, 6 to 9 units.
   Fine and practical arts not to exceed 4 of the 8 units.

d. Health Education, 2 units.

e. Physical Education activity, four semesters, with two units of credit.

f. Oral and Written Expression, 9 units.

g. General Psychology, 3 units.

h. Economics or mathematics.

i. Additional units in General Education, 8 to 14 units.
   The courses to meet this requirement are determined largely by the particular college. These may be mainly distributed among the foregoing six general areas, may include one or more courses in family life education and in mathematics.

j. Elect from above to total 45 units.

***Chico—Humanities
   Art 1, 2, or
   Music 20 or 25
   English 5, or Philosophy 1
   6 units

Humboldt—Literature, Philosophy, or the Arts (6 units), 3 units of which must be in Literature or Philosophy.

San Francisco—Fine Arts, 3 units maximum, Literature or Philosophy, 3 units.

Sonoma—Literature, Philosophy, Art (9 units); 3 units must be in Music or Art Appreciation or History and 3 units in Philosophy and 3 units in Literature. No practical arts are acceptable.
Sonoma—Physical Education (1 unit) (2 semesters).
San Francisco—Health Education is not required.
Sacramento—Literature and Philosophy 3-5 units
and Fine Arts 1-3 units, to total 6 units.
Practical arts not accepted to meet this requirement.
San Diego State—Literature, Philosophy or the Arts (8-12 units), at least
3 units of which must be in Literature and 3 units from either Literature or
Philosophy.
For details of requirements in Liberal Arts and Sciences program, see
1968-69 Catalog.
Chico—English Composition, 6 units and 3 units Speech recommended.
Fullerton—English, 6 units; and Speech, 3 units.
Sacramento—English 1-2 (6 units required); Speech 21 or 3 (2 units
required).
San Diego—Oral and Written Expression, 5 units.
San Francisco—Oral and Written Expression, 3 units.
Sonoma—Written Expression, 6 units.
Sacramento—Must include 3 units of mathematics.
San Bernardino—15 additional units to be distributed between the Social
Sciences, Natural Sciences, and Humanities.
San Diego—7 additional units.
Sonoma—Mathematics (3 units)
Fullerton—Mathematics 1 or 38 or Economics 1.
*Selections are to be made from university transfer courses.

CALIFORNIA STATE POLYTECHNIC COLLEGE
Kellogg Campus

General Education Requirements for All Students

Minimum Units

a. Social Sciences ......................................................... 10
   Any transfer course(s) in history, government and constitution
certified by Glendale College is accepted as meeting the State
requirement. The transfer course(s) in history, government and
constitution is also accepted as meeting part of Cal Poly's social
sciences requirement in general education.
   One course from Anthropology 2; Economics 1, 2; Geography
5; Law 17; Social Science 31-32.

b. Natural Sciences ....................................................... 10
   Biology (2-8 semester units)
   Biology 1A, 10, 13, 22, 37; Biology 12
   Physical Sciences (2-8 semester units)
   Astronomy 1; Chemistry 1, 2, 5, 10; Geology 1-1L; Physics
4A, 4B, 4C, 5, 6, 10, 11

c. Mathematics ........................................................... 2
   Mathematics 2, 3, 12

d. Literature, Philosophy and the Arts ................................. 6
   English 5, 6, 23
   Philosophy 1, 15, 16
   Fine and Practical Arts
   Any course in Music or Art; Engineering 4, 11

e. Health and Physical Education ....................................... 4
   Health and Physical Education 1 or 2
   Health and Physical Education activity courses

f. Psychology .............................................................. 2
   Psychology 1

g. Oral and Written Expression ........................................ 6
   English 1-2

h. Additional units from the above courses ............................ 5
CALIFORNIA STATE POLYTECHNIC COLLEGE
San Luis Obispo Campus

Minimum Units

General Education Requirements for All Students

a. Social Sciences .......................................................... 10
   Any transfer course(s) in history, government and constitution
   certified by Glendale College is accepted as meeting the State
   requirement. The transfer course(s) in history, government and
   constitution is also accepted as meeting part of Cal Poly's social
   sciences requirement in general education.
   One course from Anthropology 2; Economics 1, 2; Geography
   5; Law 17; Social Science 31-32.

b. Natural Sciences ......................................................... 10
   Biology (2-8 semester units)
   Physical Sciences (2-8 semester units)
   Astronomy 1; Chemistry 1, 2, 5, 10; Geology 1-1L; Physics
   4A, 4B, 4C, 5, 6, 10, 11

c. Mathematics ........................................................... 2
   Mathematics 2, 3, 12

d. Literature, Philosophy and the Arts................................. 6
   English 19, 20, 23
   Philosophy 1, 15, 16
   Fine and Practical Arts
   Any course in music or art; Engineering 4, 11

e. Health and Physical Education ...................................... 4
   Health and Physical Education 1 or 2
   Health and Physical Education activity courses

f. Psychology .............................................................. 2
   Psychology 1

g. Oral and Written Expression ...................................... 6
   English 1-2

h. Additional units from the above courses .......................... 5

FRESNO STATE COLLEGE

Units

a. Social Science ........................................................ 9
   (Select one course from each group.)
   1. Man and Culture
      Anthropology 2
      Geography 2, 5, 6
      History 7, 8, 9, 19, 20
      Sociology 1
   2. American History
      History 5, 10
      History 17-18°
      Social Science 31 and 32
   3. American Government
      History 17-18°
      Political Science 1°, 5°
      Social Science 31 and 32

   *Note: Political Science 6 required for State and Local Government with
   History 17 and 18, Political Science 1, or Political Science 5.

b. Natural Science ....................................................... 9
   (Select at least one from 1 and 2.)
   1. Biological Science Area
      Biology 1A, 10, 13, 22
   2. Physical Science Area
      Chemistry 1, 10, 41, 43
      Geography 1
Geology 1-1L
Physics 4A, 5, 10
Science 31

3. Additional (Select one course if needed.)
   Astronomy 1
   Biology 1B, 14, 21**, 22**
   Chemistry 2, 5, 6
   Physics 4B, 4C, 6

c. Literature, Philosophy and Arts .............................................. 6
   Literature*
   English 2
   Philosophy*
   Philosophy 1, 2, 17
   *Note: Select 3 units from Literature or Philosophy
   Arts (Select 3 units)
   Art 1, 1B, 2, 2B, 3A, 39, 40, 41, 42, 47, 48, 49
   Music 10, 20, 25, 26, 30, 31A-31B, 32, 33, 41, 42, 43, 44, 45, 48, 51, 52, 70
   Technical Education 47-48

d. Health and Physical Education .................................................. 3
   Health Education (required)
   Health Education 1, 2
   Physical Education Activities (4 semesters required)
   (2 units apply here)

e. Written and oral English ....................................................... 6
   Written
   English 1, 7
   Oral
   Speech 3, 21

f. Psychology ................................................................................. 3
   Psychology 1

g. Additional units outside major field* ........................................... 9
   Must include at least 2 categories.
   1. Any foreign language
   2. English 5, 6, 19, 20, 22, 23, 24, 25, 26; Philosophy 16
   3. Economics 7; Mathematics 1, 2, 3, 4, 5, 15, 16, 38
   4. Geology 2-2L
   5. Economics 1, 2, 11
      History 1, 2
      Political Science 2
      Sociology 2
   6. Business 11
      Law 17, 18
      Psychology 31
   *Note: May include any from above groups a, b, and c not already used.
   **Choose one only for additional science.

SAN FERNANDO VALLEY STATE COLLEGE

Units

a. Rhetoric ................................................................................. 6
   Oral Expression: Three units required. Speech 3.
   Written Expression: Three units required. English 1.

b. Social Sciences ......................................................................... 12
   1. A course involving American History.
   *Note: If requirements 1, and 2. above are satisfied by completing
   Social Science 31-32, only one course from the third requirement in
   the Social Sciences need be taken.

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3. Two courses from any two of the following categories:
   a. Anthropology 2.
   b. Economics 1, 2.
   c. Geography 2, 5.
   d. History 1, 2, 7, 8, 9; Political Science 2.
   e. Sociology 1, 2.
   c. Natural Sciences .....................................

   A total of nine units is required with at least one three-unit course from the biology area and one three-unit course from the physical science area; the remainder from any of the three categories.

   1. Biology area: Biology 1A, 20, 21, 22 taken spring semester 1968 or after.

   2. Physical Science area: Chemistry 1, 10; Physics 4A, 5, 10, 11.

   3. Science Electives: Astronomy 1; Biology 1B, 10, 12; Chemistry 2; Geography 1; Geology 1; Mineralogy 1; Paleontology 1; Physics 4B, 6.

   d. General Psychology ........................................

   Psychology 1

   e. Humanities ........................................................

   Choose one from each of the following sub-sections:

   1. English: Three units
      One of the following:
      English 2, 23

   2. Philosophy: Three units
      Philosophy 1

   3. Art and Music: Three units
      One of the following:
      Art 1, 1B, 2, 2B, 3A, 3B
      Music 20, 25, 26

   f. Physical Education and Hygiene ..........................

   1. Health and Physical Education 1, 2

   2. Health and Physical Education activity required: Four semesters of different activities.

   g. Selected Electives ...........................................

   This requirement may be completed by:

   1. Completing foreign language courses.

   Three units of any foreign language beyond course one will be accepted toward the General Education Requirements.

   2. Mathematics 3, 15

   3. Philosophy 17

   4. Economics 7

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**CALIFORNIA STATE COLLEGE AT LOS ANGELES**

**Units**

a. Social Science .............................................

   Student must satisfy American Institutions requirement and must take course work in at least two fields of study.

   1. United States History, Constitution, and State and Local Government
      History 17 and 18 with Political Science 6; Social Science 31 and 32; or Political Science 1 and 6, or 5 and 6 with one of the following: History 3 and 4, 5, 10; Economics 11. Economics 11, History 3, 4, 5, 10, 17, 18; Political Science 1, 5, 6; Social Science 31, 32.

   2. Additional Social Science Courses: Anthropology 2; Economics 1, 2; Geography 2, 5 or 6; History 1, 2, 7, 8, 9, 12, 19, 20; Political Science 2, 10; Sociology 1, 2.
b. Natural Sciences ........................................................................................................... 9
   Student must take laboratory course work in both Life and Physical Sciences.
   1. Life Science:
      Biology 1A, 1B, 10, 12, 13, 14, 21, 22, 30, 37.
   2. Physical Science:
      Chemistry 1, 2, 3, 5, 6, 10; Geology 1-1L, 2-2L;
      Mineralogy 1; Physics 4A, 4B, 4C, 5, 6; Science 31.
   3. Additional Science Courses:
      Astronomy 1; Biology 20; Mineralogy 41; Paleontology 1;
      Physics 10, 11.

c. Humanities .................................................................................................................... 9
   Student must take course work in at least two of the following three areas. At least three units must be selected from Philosophy
   and/or Literature.
   1. Philosophy:
      Philosophy 1, 2, 15, 16, 17
   2. Literature:
      English 2, 5, 6, 19, 20, 22, 23, 25, 26
   3. Fine Arts:
      Art 1, 1B, 2, 2B; Music 20, 25, 26

d. Communication ............................................................................................................. 6
   Student must take course work in each area.
   1. Written Expression:
      English 1, 7
   2. Oral Expression:
      Speech 3, 4

e. Psychology .................................................................................................................... 3
   Psychology 1, 2

f. Health and Physical Education ....................................................................................... 4
   Student must take course work in each area.
   1. Health and Physical Education: Health 1, 2
   2. Physical Education Activity (2 units required—a maximum of 4 semester units may apply as General Education credit)

g. Electives (To total 48 units) ........................................................................................... 8
   General Education elective credit may be earned in the following manner:
   1. Any excess units earned in meeting the above requirements.
   2. Foreign Languages
   4. Additional Elective Courses: Economics 7, Geography 1, Psychology 31.

CALIFORNIA STATE COLLEGE AT LONG BEACH

Units

1. Social Science ................................................................................................................. 9
   (Select one course from each group.)
   a. Man and Culture
      Anthropology 2
      Geography 2, 5, 6
      History 7, 8, 9
      Sociology 1
   b. American History
      History 3 and 4, 5, 10
      History 17 and 18
      Social Science 31 and 32

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c. American Government
   History 17 and 18*
   Political Science 1*, 5*
   Social Science 31 and 32
   *Note: Political Science 6 required for State and Local Government with History 17 and 18, Political Science 1, or Political Science 5.

2. Natural Science ................................................................. 9
   Two semesters of laboratory science are required.
   (Select at least one from a. and b.)
   a. Biological Science Area
      Biology 1A, 10, 13, 22, 37
   b. Physical Science Area
      Chemistry 1, 10, 41
      Geology 1-1L
      Physics 4A, 5, 10, 11
      General Science 31
   c. Additional (Select one course if needed.)
      Biology 1B, 14, 21
      Chemistry 2, 5, 6
      Physics 4B, 4C, 6

3. Literature, Philosophy and Arts ........................................... 6
   (Select 3 units from Literature or Philosophy.)
   Literature
      English 5, 6, 19, 20, 22, 23, 25
   Philosophy
      Philosophy 1, 2
   (Select 3 units from Arts.)
   Art
      Art 1, 1B, 2, 2B, 3A, 39, 40, 41, 42, 47, 48, 49, 50
      Music 20, 25, 26, 30, 31A-31B, 32, 33, 41, 42, 43, 44, 45, 51, 52

4. Health and Physical Education ........................................... 3
   Health Education (required)
   Health Education 1, 2
   Physical Education Activities (4 semesters required)
   (2 units apply here)

5. Oral and Written Expression ............................................... 6
   Oral (3 units required)
   Speech 3
   Written (3 units required)
   English 1

6. Psychology ................................................................. 3

7. Additional units outside major field* .................................. 8
   (Must include at least two categories.)
   a. Any foreign language (maximum 6 units)
   b. English 5, 6, 19, 20, 22, 23, 25, 26
   c. Economics 7; Mathematics 1, 2, 3, 4, 5
   d. Astronomy 1
      Geology 2-2L
   e. Economics 1, 2, 11
      History 1, 2
      Political Science 2
      Sociology 2
   f. Psychology 31
   *Note: May include any from above groups 1, 2, and 3 not already used.

SAN JOSE STATE COLLEGE

a. Natural Science ............................................................. 9

The nine unit requirement in natural science must include at least one course chosen from the biological science courses and at least one course chosen from the physical science courses, and at least one of the courses taken to satisfy the nine unit requirement
must have laboratory work associated with it.

Life Science Area:  
Biology 1A, 10, 13, 21  
Physical Science Area:  
Astronomy 1  
Chemistry 1, 10, 41  
Geography 1  
Geology 1-1L, or 1  
General Science 31  
Physics 4A, 5, 10, 11

Additional Science:  
Biology 1B, 14, 20, 22, 37  
Chemistry 2, 5, 6  
Geology 2-2L, or 2  
Paleontology 1  
Physics 4B, 4C, 6

b. Social Science ................................................. 9-12

A course or courses involving American History and Government, the Constitution, the American Institutions and Ideas—Social Science 31-32*. This requirement may be satisfied by courses which Glendale College indicates as having met the American Institution and History requirements for graduation. A course or courses involving the study of world cultures and history or European History and culture. Acceptable courses include History 1, 2, 3-4, 5, 7, 8, 9, 10, 17-18, Political Science 1, 2, 5, 6.

A course or courses involving the Study of Man in his Environment. Such courses include:
- Economics 1-2, 11
- Geography 2
- Sociology 1, 2
- Anthropology 2

*Note: Students who have met the United States History requirement in another way should not take Social Science 31-32 as social science general education.

c. Literature, Philosophy and the Arts ................................................. 9

At least three units must be taken in literature and/or philosophy. It is recommended that a student with a major in any of the fields mentioned should satisfy this area requirement by taking courses in the fields other than his major. Courses could be selected from the following:
- Art 1, 1B, 2, 3A, 3B, 5, 6 (practical arts not to exceed more than 3 units)
- English 5, 6, 19, 20, 22, 23, 25, 26
- Music 20, 25, 26
- Philosophy 1, 2, 15, 16, 17

d. Written Communication ......................................................... 3

English 1

e. Oral Communication ......................................................... 3

Speech 3

f. Psychology ................................................................................. 3

Psychology 1

g. Physical Education ................................................................. 2

Four successive semesters of physical education are required of all students unless specifically excused.

h. Electives in General Education

All elective general education courses must be courses outside of the student’s major department chosen with the guidance of his advisor. The elective units may be taken in one or several of the following fields:

Natural Science  
Psychology  
Philosophy  
Mathematics  
Written Communication  
Social Science  
Health and Hygiene

Literature  
Art

May include: Business 11  
Home Arts 25  
Journalism 1  
Foreign Language

Health and Hygiene may be used to satisfy 2 units of elective credit.
ANDERSON, CLARA JO ..................................................... Shorthand, Data Processing
B.S., Indiana University
M.Ed., University of California at Los Angeles

ANDROFF, ABRAM A ..................................................... Health and Physical Education
B.S., M.S., University of Southern California
Basketball

ANSLYN, SAMUEL S ..................................................... Technical Illustration
Twenty-three years experience in graphic arts field

BECK, HARRY L ..................................................... Assistant Dean of Extended Day and
A.A., Glendale College
Principal of Evening High School
A.B., San Jose State College

BELKNAP, ROBERT D ..................................................... Piano, Theory and Structure of Music, History
A.B., San Jose State College
and Appreciation of Music
M.A., Columbia University

BISHOP, ELSIE T ..................................................... Administrative Dean - Student Personnel
A.B., M.A., Occidental College

BOUEY, JAMES G ..................................................... Division Chairman, Biology; Biology, Zoology
A.B., University of California at Los Angeles

BRADY, ARTHUR ..................................................... Theater Arts
A.B., M.A., Occidental College

BRIGHOUSE, JEB ..................................................... Political Science
A.B., Occidental College
M.A., University of California at Los Angeles

BROWN, PHILIP ..................................................... Health and Physical Education
A.B., M.S., University of Redlands
Assistant Football Coach

BROWN, ROBERT W ..................................................... Art
A.B., San Francisco State College
M.F.A., California College of Arts and Crafts
M.F.A., University of Southern California

CAMPBELL, ALBERT J ..................................................... Business Law, Business English,
Business Mathematics, Marketing
B.S., M.S., California State College at Long Beach
Advertising

CHAPMAN, M. JANE ..................................................... German
A.B., M.A., Purdue University

COCHRANE, HAROLD B ..................................................... Dean, Guidance and Counseling
A.B., M.A., University of Southern California

COLEMAN, DONALD V ..................................................... Anatomy, Biology, Physiology
B.S., George Pepperdine College
M.A., California State College at Los Angeles

CONNERT, THEODORE R ..................................................... English, Reading Improvement
A.B., University of California at Berkeley
M.A., Columbia University

COTTON, JO RAY ..................................................... English
A.B., Pacific Union College
M.A., Ph.D., University of Southern California

CRAVEN, JOHN B ..................................................... English
A.B., La Sierra College
M.A., University of Southern California

CRIPPEN, ELIZABETH B ..................................................... Counselor, Psychology
B.Ed., University of California at Los Angeles
M.A., University of Southern California
C.P.A., State Board of Accountancy, California

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DEGRASSI, LEONARD R. .................................................. Art History
A.B., B.F.A., M.A., University of Southern California
Corso Perfezionamento Storia d'Arte, Università di Roma

DIPIETRO, HARRIET LOUISE ........................................ Speech, English, Radio Speech
A.B., M.A., University of Southern California

DONOVAN, BLANCHE K. ................................................. Health and Physical Education
A.B., Occidental College

DOYLE, MARK A. .................................................... Sociology, Anthropology
B.S., Villanova University
M.A., University of Pennsylvania

EVESLAGE, DEAN ..................................................... Aerospace Technologies

FELLINGHAM, WARREN C. ........................................ Division Chairman, Technical
Education and Aerospace Technologies; Engineering, Mathematics
A.B., Occidental College

FISCHER, EGEBERT D. ................................................ Physics
A.B., Sam Houston State College
M.A., University of Texas

FISHER, EVERETT G. .................................................. Electronics

FITZRANDOLPH, SCOTT ............................................... English
A.B., M.A., University of Southern California

FLINT, LOIS H. ....................................................... Counselor, Psychology
A.B., M.A., Syracuse University
Ed.D., Stanford University

GIBSON, CHARLES H. ................................................ History, Social Science
A.B., University of California at Berkeley
M.A., University of Southern California

GODDARD, FRANK L. ................................................ Counselor, Psychology
A.B., M.A., Occidental College

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<td>B.Mus., M.Mus., University of Texas</td>
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<td>Place, Derrill R.</td>
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<td>Accounting, Investments, Money and Banking, Math of Finance</td>
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<td>A.B., M.Ed., University of New Hampshire</td>
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</table>
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