THEME OF THE CATALOG: A Spanish Architectural Arch of our College entrance is the cover design subject, with accompanying illustrations throughout the Catalog depicting early California scenes. Art work by Bonita Montanô. Graphic Art Direction by Samuel 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 3500 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

ARTHUR N. ALLCROFT
1969 - 1971

SHELDON S. BAKER
1969 - 1973

JOSEPH P. BEAN
1969 - 1973

JOHN C. HEDLUND
1969 - 1973

GEORGE HOWENSTEIN
1967 - 1971

School District Administration

BURTIS E. TAYLOR ............... Superintendent

WAYLAND PARSONS ............... Deputy Superintendent

MISS MILDRED E. HALL. Assistant Superintendent (Educational Services)

M. A. HESSE ............... Business Administrator - Operations

Glendale College Administration

JOHN T. McCUEN .......... President - Assistant Superintendent
JOHN S. KREIDER ........ Administrative Dean - Instruction
JOHN A. DAVITT .......... Administrative Dean - Student Personnel
DAVID C. LEEK .......... Administrative Dean - Continuing Education
HARRY L. BECK .......... Dean - Admissions and Records
HAROLD B. COCHRANE ..... Dean - Guidance and Counseling
THOMAS S. RYAN .......... Dean - Technical-Vocational Education
J. WALTER SMITH .......... Dean - Student Activities
CHARLES C. WHEELOCK .... Dean - Adult Education and Summer Session
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May 22  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Chemistry 1 Placement Examination, 2:00 p.m.

May 30  Memorial Day (Legal Holiday)

June 1  Last date for International Students to complete admission requirements for Semester I.

June 6  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*

June 12 PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Chemistry 1 Placement Examination, 2:00 p.m.

June 16  Chemistry 1 Placement Examination, 11:00 a.m.

June 22  Summer Session Begins
Chemistry 1 Placement Examination, 2:00 p.m.

July 4  Legal Holiday

July 6  PRE-REGISTRATION EXAMINATIONS, 1:00 p.m. - 5:00 p.m.*

July 29  Chemistry 1 Placement Examination, 2:00 p.m.

July 31  Summer Session Ends
PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*

Aug. 17 - Sept. 3  REGISTRATION - SEMESTER I

August 24  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Chemistry 1 Placement Examination, 2:00 p.m.

September 4  PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
Chemistry 1 Placement Examination, 2:00 p.m.

September 7  Labor Day

September 9  Admission Day
Admission applications must be on file in the Office of Admissions and Records for Semester I.

September 10  Chemistry 1 Placement Examination, 2:00 p.m.

September 14-16  Late Registration

September 14  Class Instruction begins for Semester I.

September 15  Chemistry 1 Placement Examination, 11:00 a.m.

September 18  Last date to add academic classes.

October 6, 8  Group Guidance Meetings, 11:00 a.m. (All new students are expected to attend.)

October 16  Last day to drop eight weeks classes without possible penalty.

October 23  Last day to drop nine weeks classes without possible penalty.

November 1  Last date for International Students to complete admission remissions requirements for Semester II.

*All Pre-registration Examinations will be held in the Auditorium Building unless otherwise noted.
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*All Pre-registration Examinations will be held in the Auditorium Building unless otherwise noted.
February 22  Washington's Birthday
March 5    Last day to drop eight weeks classes without possible penalty.
March 12   Last day to drop nine weeks classes without possible penalty.
March 26   Last Day of Class Instruction for eight weeks classes and Mid-
            Semester Deficiency Notices.
March 29 - April 1 Registration for eight and nine weeks classes.
April 2    Last Day of Class Instruction for nine weeks classes.
April 5 - 9 Easter Vacation
April 12   Eight and nine weeks classes begin.
April 15   Group Guidance Meetings, 11:00 a.m.
April 23   Last day to drop a semester class without possible penalty (see
            Catalog statement on Withdrawal from Class or College). Last
day students may apply to take a course on a Credit - No Credit
            basis.
May 7      Last day to petition for graduation.
May 14     Last day to drop eight weeks classes without possible penalty.
May 21     PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
            Last day to drop nine weeks classes without possible penalty.
            Chemistry 1 Placement Examination, 2:00 p.m.
May 30     Memorial Day
May 31     Legal Holiday
June 4     Last Day of Class Instruction for Semester II.
            Last Day to withdraw from Semester classes.
June 5     PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
June 7     Final Examinations begin for Semester II.
June 11    PRE-REGISTRATION EXAMINATIONS, 8:30 a.m. - 12:30 p.m.*
            Chemistry 1 Placement Examination, 2:00 p.m.
June 13    Baccalaureate and Commencement Exercises
June 15    Chemistry 1 Placement Examination, 11:00 a.m.
June 18    End of Semester II

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

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# Calendar for 1970

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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 completed 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 Supervision, Real Estate, and Sheetmetal Apprenticeship. The College offers specialized courses in Peace Officer 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 curricula 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.

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 police science, supervision, 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, probation and dismissal regulations, scholarship standards, and requirements for graduation with the Associate in Arts Degree are the same as for the day college.

The teaching staff is made up of persons highly qualified to instruct these classes. Many of the Extended Day faculty also teach on the regular day staff of the Glendale Unified School District 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 Guidance and Counseling Office on certain evenings. Counseling appointments may be arranged by telephone, 242-6861, extension 8.

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

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

A separate program of non-credit adult education courses also provides educational opportunities for those seeking personal and occupational improvements. Adult non-credit courses include business and distributive education, clothing, pre-school parent education, English, naturalization, basic education, history, government, Spanish, German, biology, mathematics, music, parent education, and physical science. Other courses may be developed to meet the special needs of those desiring general interest studies. Classes are scheduled at various locations throughout the school district. A tuition fee is paid by adults taking non-credit courses not exempted by state regulations.

**SUMMER TERM.** The summer term will begin June 22, 1970 and end July 31, 1970. 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)

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

Its collection includes more than 35,000 volumes as well as journals on microfilm and over 400 current periodical titles. Students have direct access to the book collection located on both
floors in three major reading rooms with many individual study stations. An outdoor reading patio provides an informal study area with a scenic view of the mountains and valley in the distance.

On the main floor, in addition to part of the general circulating collection, are the card catalogs, conference rooms, a map collection, a typing room with coin-operated typewriters, and a photo-duplicator. Preparation areas for audio visual services and for books are in the back of the building.

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

The Library Multi-media Center consists of a central audio system and 32 student carrels where, by use of earphones, students may listen to audio recordings on tape and phonorecords. The entire system is capable of stereophonic reproduction.

The system can be used in various ways:
1. As many as 32 students can listen to their choices of any number of programs,
2. As many as 32 students can listen to one phonorecording at the same time,
3. Eight student stations are designed so students in those stations can individually control their own listening for purposes of repetition and drill while students at the other 24 stations may listen to any of these student controlled programs,
4. Six student stations have phonorecord player installations so students can individually control and listen to phonorecords,
5. All 32 stations are equipped with small visual projection screens where film strip and slide projectors can be used for viewing related to the audio programs,
6. Over 100 programs are currently available on tape for listening and are classified, cataloged, and annotated in book catalogs to facilitate the problems of location and selection of needed material. Several hundred additional programs will be available in the next few months.

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

Students are invited to visit the Library and to acquaint themselves with its many resources and services. Professional librarians are on duty for consultation regarding location and use of learning materials and for help in many other ways.

Library hours are from 7:30 a.m. to 9:00 p.m., Mondays through Thursdays, and from 7:30 a.m. to 5:00 p.m. on Fridays.

**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

*See page 163 this Catalog.*
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 163.

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.
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 Placement 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.

Employment opportunities exist on the College campus. Glendale College participates in the Federal College Work Study Program, as well as having a program totally funded by the College. Positions such as clerical aide, library aide, lab technician, etc., are available. Information concerning student employment on the College campus is available in the Placement Office.

HEALTH CENTER. The Glendale College provides facilities for health appraisal of new students by means of health questionnaires and a limited number of physical examinations.

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.

Any student interested in obtaining a place to live should review the listing in the Office of the Dean of Student Personnel, Administration Building, Room 104.

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

Glendale College does participate in the Federally Insured Guaranteed Loan Program whereby commercial lending institutions in the Glendale area make loans of up to $1500 per school year to students at Glendale College. Information and applications forms for these loans are also available in Administration Building, Room 104.
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 scholarships of $50 each semester to one or more of its current members. The candidate must have a minimum grade point average of 3.4 and must have displayed an active interest in club activities.

**American Association of University Women Scholarship.** A scholarship of $200 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.

**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 each to two continuing students for expenses while attending Glendale College.

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

**Bank of America Business Awards.** The Bank of America awards two scholarships of $300 each to outstanding students in the field of business and secretarial science.

**Beta Kappa.** A $50 scholarship is awarded annually to a member of the Club who is preparing for a business career.

**Dental Hygiene.** A scholarship of $200 is awarded annually by the San Gabriel Valley Dental Hygiene Society to a woman who has been accepted to University of Southern California or Loma Linda Dental Hygiene Schools.

**Doehring Foundation.** Two $500 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 scholarships are awarded each semester to help defray Glendale College expenses.
Eleanor Kentner Kohler Memorial Scholarship. An award of $250 is made annually to a student having a special talent in art or poetry to help defray expenses while a student at Glendale College. Selection is made by the Scholarship Committee from recommendations submitted by the fine arts and language divisions.

Elizabeth Rowley Memorial Scholarship. An award of $250 is presented each year to a woman student planning to transfer to a four year college or university with a Glendale College grade point average of at least a 3.0. This award is made from funds contributed by the Glendale College faculty to a memorial fund in honor of Elizabeth Rowley, a former Dean of Women at Glendale College. Selection is made by the Scholarship Committee.

Elsie Bishop Scholarship. The Glendale College Patrons Club awards a $100 scholarship to a woman graduate selected as the outstanding graduating woman by the graduating class. This scholarship is in honor of Mrs. Elsie Bishop, former Dean of Students at Glendale College.

Gateway Kiwanis Scholarship. The Gateway Kiwanis Club of Glendale each year awards $300 to an outstanding sophomore student who is planning to transfer to a four-year institution. Preference is given to future teachers of industrial arts.

Glendale Academy of Dentists Scholarship. The Glendale Academy of Dentists makes a scholarship award of $200 to a student who has been accepted for admission to the Dental College of the University of Southern California.

Glendale College Dental Alumni Fund. This $200 scholarship is awarded by alumni of the College who are practicing dentists. A necessary criterion is acceptance into a college of dentistry.

Glendale College Faculty Award for Academic Excellence. The faculty of Glendale College annually awards a plaque and a monetary award to the student with the highest grade point average. A minimum grade point average of 3.5, at least 60 units, 45 of which must have been taken at Glendale College, and a well-rounded program are the main requirements.

Glendale College Patrons Club Scholarships of $50 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 is donated yearly by the Club.

Glendale College Patrons Club Highest Man and Woman Awards. The Patrons Club makes a $50 cash award each year to the man and woman in the graduating class who have achieved the highest grade point average.

Glendale Medical Assistants. Scholarships up to $150 are awarded to men or women who have completed two years of College and who plan to enter the paramedical field.

Glendale Teachers' Association Teaching Scholarship. The Glendale Teachers' Association makes a $150 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 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 $1000 every two years as follows: $500 for the junior year and $500 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. Lee Gregg Scholarship. The Fiel Foundation has established a scholarship in memory of Mr. J. Lee Gregg, prominent Glendale citizen. For two years $150 per month for the nine school months will be paid to an outstanding man student upon his transfer to a four-year college or university. Nominations are made by the Scholarship Committee of Glendale College, and final selection of the recipient is made by the Gregg family.

Janet and John Delmonte Scholarship. Two $50 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 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. One $200 scholarship is 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 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.

Little Theater of the Verdugos Award. The Little Theater of the Verdugos each year awards $200 to an outstanding student in theater arts. Consideration by the Scholarship Committee for this award is made each spring upon the recommendation of the faculty of the theater arts classes.

Los Angeles National Association of Accountants. This organization contributes one $150 scholarship to be awarded annually to an accounting student with a 3.0 grade point average planning to transfer to upper division. In addition, the awardee is eligible to compete for other scholarships donated by this organization. Candidates for this scholarship are nominated by the business division.

Montrose-La Crescenta Kiwanis Scholarship. A scholarship of $250 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 $2000 scholarship annually to a transferring student to assist him in completing his education at a four-year accredited college or university. The selection is based on financial need, academic achievement, integrity of character, and chances of success. The scholarship is not restricted to any one field, but the candidate must have determined his occupational goal. An award is also made to 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.

**Owen Marsh Meredith.** An award of $50 is given annually to a student transferring to a four-year college or university in memory of a former Glendale College student, Owen Marsh Meredith, from funds contributed by his parents.

**Panhellenic Scholarship.** Each year the Glendale Area Panhellenic Association awards a $150 scholarship to a graduating woman who plans to continue her education at a four-year college or university where there are national sororities.

**Richard W. Tang, Jr. Memorial of $50** is awarded each year to the outstanding male athlete of Glendale College.

**San Gabriel Valley Dental Hygiene Society.** A scholarship of $200 is awarded annually by this organization to a woman who has been accepted at an accredited school of dental hygiene.

**Sertoma.** The Sertoma Club of Glendale awards one scholarship in the amount of $100 to help defray expenses at Glendale College for a student's final semester of study. Candidates must have completed 45 units of work at Glendale College. Final selection is made by the Sertoma Club from candidates suggested by the Glendale Scholarship Committee.

**Tuesday Afternoon Club Scholarships.** Each year the Tuesday Afternoon Club makes two awards of $100: 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.

**Webb's of Glendale** gives a scholarship of $125 to a man or a woman student who is outstanding in the field of merchandising and who plans to major in business administration at a four-year institution.

**Webb's Store for Men and Boys** makes an award of $125 to a man or woman student who is outstanding in the field of merchandising and plans to enter this field upon completion of work at Glendale College.

**Women's Athletic Club Study Grant.** The Women's Athletic Club of Glendale makes a $300 scholarship award to an outstanding woman in the graduating class who plans to make a career in physical education.

**Women's Committee of the Glendale Symphony Association.** This organization awards an annual scholarship of $500 to a student selected by the music department and the Scholarship Committee of the Association. Candidates must have completed 48 units of work at Glendale College, have a 3.0 grade point average in music, and be prepared to present a recital.
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 Intercollegiate 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. All new students are expected to attend meetings throughout the semester conducted by the counseling staff for the express purpose of assisting students new to Glendale College. The schedules of these meetings appear in the weekly bulletin and students should make every effort to attend them.

International Students should note that special meetings and programs are conducted during the semester in order to acquaint them with traditions of American college life as it may be related to them on the Glendale College Campus.

"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>
<th>Open to All</th>
<th>Subject to Qualifications</th>
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<tbody>
<tr>
<td>A.S.B. Legislature</td>
<td>Governing Body</td>
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<tr>
<td>A.S.B. Executive Board</td>
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<tr>
<td>A.W.S. Board</td>
<td>Governing Body</td>
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<tr>
<td>Inter-Club Council</td>
<td>Governing Body</td>
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## ATHLETIC ORGANIZATIONS

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

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<tbody>
<tr>
<td>Alpha Chi</td>
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<tr>
<td>American Society of Engineers and Architects</td>
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<td>Aqua Vaqs</td>
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<td>Archi</td>
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<tr>
<td>Beta Kappa</td>
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<td>Biology</td>
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<td>Christian Science</td>
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<td>Delta Tau</td>
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<td>Flying Club</td>
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<td>Glendale College Democrats</td>
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<td>Glendale College Republicans</td>
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<td>Intervarsity Christian Fellowship</td>
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<td>Kappa Pi Sigma</td>
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<td>Latin American Club</td>
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<td>Photography Club</td>
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<td>Pre-Dental Club</td>
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<td>Ski Club</td>
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## HONORARY ORGANIZATIONS

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<td>Delta Psi Omega</td>
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## SERVICE ORGANIZATIONS

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<tr>
<td>Circle K</td>
<td>Men</td>
</tr>
<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>
<td>Women</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 Coordinator of Women's Activities, Administration Building, Room 104A.
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 1970-1971 at $14 per semester unit but not to exceed $210 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 outstanding experience in a given area which he may feel will substantially satisfy the stated prerequisite for a course. Where it is desired to offer such experience for the regular prerequisite, the student must have a petition approved to make such substitution. Once such a petition has been approved the student may not later receive credit for a course for which he substituted the outside experience. Students who are considering developing a petition should first read the section on Credit by Examination.

Credit for lower level courses will not be granted if credits have been earned in higher level courses.

Many courses have no stated prerequisite. Here the student should realize that it may be assumed that; he has previous successful experience with related subjects, he has the ability to read with speed and understanding, and he has the ability to express himself in clear and concise English.
These factors are considered by counselors when assisting a student with his Study List from which he will select courses as he makes out his program during the registration period.

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

**REGISTRATION.** Each student must 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 $14 per semester unit to a maximum of $210 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 $60 at the time of registration to cover these expenses. There will be need for additional supplies during the semester but the amount varies with the course taken. 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. A 24-hour health and accident policy at a nominal fee is available to all students. Application Forms may be obtained during registration. 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**

| Full Time Student | $15 per year |
| Part Time Student (7 units or less) | $7 per year |

For those students enrolling for the spring 1971 semester only, the charge is $10 for a full-time student and $4 for a part-time student. Students who purchase a membership card in the fall semester but who do not return for the spring semester may receive a partial refund through direct application at the Associated Student Body Business Office.
Scholastic Information and Regulations

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% 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 re-instated until at least one semester has elapsed after the dismissal. Students dismissed from other community or junior colleges must abide by the procedures for student's dismissed from Glendale College with respect to seeking admission.
A student having been re-instated on probation after academic dismissal from College must maintain a 2.0 grade point average for units attempted during each semester subsequent to the dismissal or will again be dismissed for at least one semester.

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:

- A—Excellent: 4 grade points per unit
- B—Good, above average: 3 grade points per unit
- C—Average: 2 grade points per unit
- D— Barely passing: 1 grade point per unit
- F—Failure: 0 grade points
- WF—Withdrawn Failing: 0 grade points
- WU—Withdrawn Unofficial: 0 grade points
- Inc/W—Incomplete Withdrawal: 0 grade points
- Inc/F—Incomplete Failure: 0 grade points
- W—Withdrawn: 0 grade points
- Cr—Credit: 0 grade points

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

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

Although cumulative-credit courses, such as Music 30 (Chorus) or Music 51 (Orchestra), are designed to be continued for additional credit, most Glendale College courses are not so designed. Any course that is not a cumulative-credit course may be retaken for grade improvement. For computation of grade point average, the units attempted and grade points earned are counted only once and according to the higher or highest grade earned in the course. If the grade is the same in both or all cases, the units attempted and grade points will be counted only once. This applies to the computation of grade point average as well as toward the completion of a curriculum or the requirements for the Associate in Arts Degree.

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

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.

CREDIT BY EXAMINATION. Under special circumstances a student regularly enrolled and in good standing and who believes he is qualified by experience or previous training, may apply to take a special examination to establish credit in a course in which he is not formally registered.

Information concerning which departments offer credit by examination, and for which courses, may be obtained from the Counseling Center or the Office of Admissions and Records.

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

A student not on probation and enrolled for fifteen or more* units may designate one three unit course (selected from those listed below) for Credit-No Credit if he initiates a petition to do so on or before the date on which a student may withdraw from the course without possible penalty. The course designated must be outside of courses required for the student's major. The petition is secured from the student's counselor. Courses which may be selected for Credit-No Credit evaluation include:

- Anthropology 2
- Architecture (all)
- Art (all)
- Biology (all)
- Chemistry 10, 41, 43
- Drafting (all)
- Economics 1, 2, 7
- Electronics (all)
- Engineering 1, 3, 4, 8, 10, 42
- English 5, 6, 19, 20, 22, 23, 24, 25, 26, 40, 42, 43, 44, 99
- Fire Science (all)
- Geology 1, 2
- Health & Physical Education 21-94
- History 1, 2, 7, 8, 9, 12, 19, 20
- Home Arts (all)
- Jewelry 47, 48
- Machine Shop (all)
- Mathematics 40, 41, 43, 44, 50
- Metals 15
- Mineralogy (all)
- Music (all except 63)
- Paleontology 1
- Philosophy (all)
- Photography (all)
- Physics, 10, 45
- Police Science (all)
- Political Science 2, 10
- Psychology (all)
- Real Estate (all)
- Science 31
- Sociology (all)
- Speech 21, 22
- Supervision (all)
- Technical Education (all)
- Technical Illustration (all)
- Theater Arts 3, 4, 9, 10, 21, 22, 23, 31, 34
- Welding (all)

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

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

These Standards of Student Conduct are stated below.

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

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

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

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

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

ATTENDANCE AND PUNCTUALITY. Students are expected to attend all classes regularly. There are no authorized cuts from classes, and irregular attendance may result in exclusion from classes or from college. Although absence may be unavoidable, such as 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 or the Office of Admissions and Records. Failure to attend classes does not constitute a regular withdrawal, and may result in an “F” or “WU” grade in the course. The date of withdrawal is when the completed Petition is received in the Office of Admissions and Records, not the last date of attendance in classes.

Students withdrawing from class or from college during the first 11 weeks of a semester course are assigned a No-Penalty “W” grade. Students withdrawing from class or from college during the 12th week and until the end of the week preceding the final examination period will be assigned a “W” grade if passing, and a “WF” grade if not passing. All petitions for such withdrawals must be submitted to the Admissions and Records Office prior to noon of the last school day preceding the final examination period. Students may not withdraw from class or college during the final examination period. For classes scheduled for less than one semester, the No-Penalty “W” withdrawal periods are as follows:

- A 9-week course — 6 weeks
- An 8-week course — 5 weeks
- A 6-week course — 4 weeks
- A 3-week course — 2 weeks

PHYSICAL EDUCATION. Each 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, or (5) those enrolled students who have already completed satisfactorily one-half unit of health and physical education activity in each of four semesters.

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. A charge of fifty cents each is made for all transcripts.
Graduation Requirements

The Associate 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 requirements for a Certificate of Completion or by completing a 20 semester unit major in Humanities or Science or by completing the Glendale College general education breadth requirements for admission to the California State Colleges. See Page 183.

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<td>Social Sciences</td>
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2. Two units in American Institutions are required. 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 is required. Courses which satisfy this requirement include Political Science 6; Social Science 31-32**.

4. Two units in American History are required. 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 are required. Courses which satisfy this requirement include English 1, 2, 21A, 21B, 22, 23, 24, 25, 26, 31, 32, 41, 42, 99; (English 99 used for four of the six required units). Business 15, 16; Journalism 2; Speech 3, 21; and Supervision 11, 12.

6. Satisfactory evidence of proficiency in mathematics must be given. This evidence may be a satisfactory score on the Mathematics Proficiency Examination, or a passing grade in any mathematics course taken at Glendale College.

7. Two semester hours of community and personal hygiene must be completed. Courses which satisfy this requirement include Health and Physical Education 1 or 2 or equivalent.

8. Physical Education requirements are four semesters of Health and Physical Education activity courses unless legally exempt.

9. First-aid instruction, Health and Physical Education 10, satisfies this requirement.

10. One of the following conditions must be met:
    a. A student must complete the last 15 units in residence.
    b. A student must complete a minimum of 45 units in residence.

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

1. Certificates of Completion shall be issued upon request by the Office of Admissions and Records to students who qualify for them by completing one of the occupation-centered curriculums. The student must have an average grade of "C" in the required occupational courses.

2. To be eligible for the Certificate a student must complete a minimum of 24 units of college work including the required courses.

3. At least twelve units of the required courses must be completed in residence at Glendale College.

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 General Education Requirements For Graduation From Colleges and Universities in the section of this Catalog describing programs for transfer students.

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

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.

These courses are required: Art 2B, 3A, 3B, 4, 5, 6, 35, 36, and 3 units from either Art 1 or Art 2.

To complete a minimum of 24 units select from the following: Art 1 or 2, 7, 11, 14, 15, 23, 25, 37, 38

Photography 7

Aerospace Technologies—Airlines Administration
Airlines Administration is for those who wish to enter airline work as Clerks, Agents, Station and Traffic Managers, etc.

These courses are required: Aerospace Technologies 10, 47, 49 Business 15, 16 or equivalent Business 21

Select 8 units from the following: Aerospace Technologies 1A, 1B, 2A, 2B, 11, 12, 13, 14, 19

Business 1A, 33, 34

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.

These courses are required: Aerospace Technologies 10, 48, 49 Home Arts 33 Psychology 10 Speech 3 or Speech 21

Select 9 units from the following: Business 1A Geography 5 Aerospace Technologies 1A, 1B, 12, 13, 19, 47

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

These courses are required: Aerospace Technologies 21-22

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.

These courses are required: Aerospace Technologies 21-22, 37

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.

These courses are required:
- Basic Pilot Training:
  - Aerospace Technologies 10
- Advanced Pilot Training:
  - Aerospace Technologies 11, 12, 13, 14, 19

Select 12 units from the following:
- Aerospace Technologies 1A, 1B, 2A, 2B, 3, 4, 16, 20, 47, 49, 50
- Mathematics 43 or equivalent

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.

These courses are required:
- Art 3A, 5
- Business 15
- Home Arts 17, 18, 19, 20, 33
- Theater Arts 23 (2 units only)

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.

These courses are required:
- Architecture 3, 9, 10, 11, 12
- Art 3A, 4, 5, 6

Select 12 units from the following:
- Business 1A, 15
- Physics 45
- Technical Education 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.

These courses are required:
- Architecture 3, 91, 92, 93, 94
- Art 3A, 5
- Mathematics 43, 44 or equivalent

Select 9 units from the following:
- Art 4, 6
- Business 15, 16 or equivalent
- Physics 45
- Technical Education 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.

These courses are required:
Art 2B, 3A, 3B, 4, 5, 6

To complete a minimum of 24 units select from the following:
Art 1 or Art 2 (3 units) and 8 additional units from any remaining art courses.

Business—Accounting

The accounting curriculum provides comprehensive training for career employment as accountants, both in private business firms and in the public accounting field, as well as in civil service positions. Students who contemplate meeting the additional 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 an accounting career, and are willing to make the intensive study necessary in a two-year preparation, can obtain the training to qualify for positions of responsibility in business enterprises, or governmental work. This curriculum also provides a broad general education in the field of business administration.

These courses are required:
Business 9, 11, 23, 41
Business 13 or English 1 or
Economics 21A
Law 17
Mathematics 1

A minimum of three units must be selected from the following:
Business 1.9, 3.9, 16, 24, 25, 26, 27, 28, 31, 34, 39, 42
Economics 7
Law 18

Business—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.

These courses are required:
Business 9, 11, 23, 29, 41, 42
Business 15 or English 1
or English 21A
Business 21 or Economics 13
Business 22 or Economics 14
Law 17

A minimum of three units must be selected from among the following:
Business 1.9 or 3.9, 16, 24, 25, 31
Economics 5
Mathematics 1
Real Estate 1

Business—Bookkeeping

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

These courses are required:
Business 9, 11, 23
Business 15 or English 1 or
English 21A
Business 21 or Economics 13
Business 22 or Economics 14
Business 29 or Mathematics 1
Law 17

A minimum of two units must be selected from the following:
Business 1A, 1B, or 1.9, 3.9, 16, 24, 25, 31, 41, 42, 45
Law 18

Business—Clerical

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

These courses are required:
Business 1C*, 1.5, 3.9, 5, 7, 8.1, 9, 23, 29, 45
Business 15 or English 1 or English 21A
Business 21 or Economics 13
Home Arts 33
*A minimum of three units must be selected from the following:
Business 11, 16
Business 22 or Economics 14
Law 17 or 31
Psychology 10

Prerequisites must have been satisfied.

Business—Data Processing

This curriculum is designed for those students interested in business data processing as an occupational area. Students planning to enter this field to become specialists or technicians should have a comprehensive background in general business, including accounting, with specific emphasis on computer principles and business data processing applications. With the continuing expansion of data processing in business and industry, students who successfully complete this curriculum will have many opportunities for careers in this area.

These courses are required:
Business 12, 23, 24, 25, 27
Business 15 or English 1 or English 21A
Business 22 or Economics 14*
Mathematics 1 or 41
*A minimum of six units must be selected from the following:
Business 1.9, 9, 16, 26, 28
Economics 7
Mathematics 30
Philosophy 17
Psychology 1 or 10
Speech 3 or 21

It is assumed that the prerequisites have been satisfied.

Business—General

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

These courses are required:
Business 11, 23, 32 or 33, 41 or 42, 45
Business 15 or English 1 or English 21A
Business 21 or Economics 13
Business 29 or Mathematics 1
Law 17
*A minimum of two units must be selected from the following:
Business 1.9, 3.9, 9, 31, 34
Business 22 or Economics 14
Economics 5
Law 18 or 31
Real Estate 1

Business—Insurance

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

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

These courses are required:
Business 9, 11, 23, 29, 33, 34, 39, 45
Business 15 or English 1 or English 21A
Business 21 or Economics 13
Law 17 or Law 31
*A minimum of three units must be selected from the following:
Business 1.9, 3.9, 16, 24, 31
Business 22 or Economics 14
Real Estate 1

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Business—Medical Assistant (Administrative)

This curriculum is designed for those students who are preparing to become an administrative assistant in offices of physicians, medical clinics, hospitals, and allied facilities.

These courses are required:
- Biology 20, 21
- Business 1C, 4.1, 4.2, 4.5, 8.3, 9
- Business 15 or English 1 or English 21A
- Business 21 or Economics 13
- Home Arts 33
- Psychology 1 or Psychology 10

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
- Biology 12
- Business 16, 23, 29, 45
- Business 22 or Economics 14
- Law 17 or Law 31
- Sociology 1, 2

Business—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.

These courses are required:
- Real Estate 1, 3, 5, 7, 9, 11

To complete a minimum of 24 units select from the following:
- Business 1A, 1B, 11, 16, 29, 32, 33, 39, 41, 42, 45
- Business 15 or English 1 or English 21A
- Business 21 or Economics 13
- Business 22 or Economics 14
- Economics 1, 2
- Law 17, 18

Business—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.

These courses are required:
- Business 11, 23, 29, 31, 32, 33, 34
- Business 21 or Economics 13
- Supervision 3

A minimum of four units must be selected from the following:
- Business 1, 9, 3, 9, 15, 16
- Business 22 or Economics 14
- Mathematics 1
- Speech 21

A certificate will also be granted by the Sales and Marketing Association of Los Angeles for completion of the above.
Business—Secretarial, Dental

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

These courses are required:
Business 1C*, 3C*, 3D, 5, 8.1
Business 15 or English 1 or
English 21A
Business 21 or Economics 13
Biology 20
Chemistry 41 or 43
Home Arts 33
Psychology 1 or 10

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
Business 3R or 3S, 3D, 7, 9, 11, 16, 29, 45
Business 25 or Economics 14
Biology 12, 21
Chemistry 10

Business—Secretary, Executive

This curriculum is designed for those students who wish to prepare for positions as executive 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.

These courses are required:
Business 1C*, 3C*, 3D, 5
7, 8.1, 11, 16
Business 15 or English 1 or
English 21A
Business 21 or Economics 13
Home Arts 33
Law 17

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
Business 1.5, 3R or 3S, 9, 23, 29, 41, 42, 45
Business 22 or Economics 14
Economics 1
Law 16 or Law 31
Psychology 1 or Psychology 10

Business—Secretary, General

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

These courses are required:
Business 1C*, 3C*, 5, 7, 8.1, 9, 16, 23
Business 15 or English 1 or
English 21A
Business 21 or Economics 13
Home Arts 33

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
Business 1.5, 3D, 3R or 3S, 11, 29, 45
Business 22 or Economics 14
Law 17 or Law 31
Psychology 1 or Psychology 10

Business—Secretarial, Legal

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

These courses are required:
Business 1C*, 15, 1L, 3C*, 3L
5, 7, 8.2, 16
Business 15 or English 1 or
English 21A
Business 21 or Economics 13
Home Arts 33
Law 17

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
Business 3D, 3R or 3S, 9, 11, 23, 29, 41, 45
Business 22 or Economics 14
Economics 1
Law 18 or Law 31
Psychology 1 or Psychology 10
Real Estate 1
Business—Secretary, Medical

This curriculum is designed for those students who are preparing for a secretarial position in offices of physicians, medical clinics, hospitals, and allied facilities.

These courses are required:
- Biology 20, 21
- Business 1C*, 3C*, 4.1, 4.2, 4.5, 8.3
- Business 15 or English 1 or English 21A
- Business 21 or Economics 13
- Home Arts 33
- Psychology 1 or Psychology 10

* Prerequisites must have been satisfied.

A minimum of three units must be selected from the following:
- Biology 12
- Business 3R or 3S, 9, 16, 23, 29, 45
- Business 22 or Economics 14
- Law 17 or Law 31
- Sociology 1, 2

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.

These courses are required:
- Drafting 31, 32, 33, 34
- Mathematics 43, 44 or equivalent
- Technical Education 46

Select 10 units from the following:
- Drafting 35
- Electronics 75
- Machine Shop 1, 8
- Physics 45

For employed students taking Extended Day work the following courses are recommended: Drafting 38A, 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.

These courses are required:
- English 1, 2, 25, 26
- Speech 3
- Theater Arts 3, 4, 5, 9, 21, 31, 34

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.

These courses are required:
- Drafting 29 or equivalent
- Electronics 71, 72, 73, 74
- Mathematics 43, 44 or equivalent

Select 6 units from the following:
- English 31, 32
- Mathematics 3A
- Physics 45
- Speech 3 or Speech 21

For employed students taking Extended Day work the following courses are recommended: Electronics 77, 78, 79, 80.
Engineer—Junior Engineer (see Draftsman)

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.

These courses are required:
- Journalism 2, 3, 4
- English 1, 2, 5, 6

To complete a minimum of 24 units select from the following:
- Economics 1
- History 7, 8, 9, 10
- Political Science 1

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

These courses are required:
- Biology 22
- Chemistry 10
- Mathematics 1, 2
- Physics 5, 6

Library Assistant
This program is for the student who wishes to prepare for work as a clerical assistant in a library of a college, high school, or public or private agency. Students seeking employment in industrial and research libraries should choose electives and required course options which concentrate on the specialty of the library. Students wishing to become professional librarians should follow the Librarianship transfer curriculum. If course prerequisites have been met, students undecided between professional and non-professional careers should choose electives and required options from that curriculum.

These courses are required:
- Art 1 or Art 2
- Business 1B, 15
- English 1
- History 10 or History 17-18
- Science 31
- Social Science 31-32
- *Business 29 or Mathematics 50
- **Health and Physical Education 1 or 2 and 10

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

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

** And four semesters of Health and Physical Education courses unless legally exempt.

Manufacturing Technology
Students seeking careers in manufacturing engineering, tool engineering, or tool design at the professional level should investigate this training program. Courses listed below will prepare students for enrollment at the junior level at California State College at Long Beach.

These courses are required:
- English 1 or English 21A
- or English 41
- Machine Shop 1, 2, 3
- Mathematics 3A, 3B
- Physics 5, 6
- Speech 3

To complete a minimum of 24 units select from the following:
- Chemistry 1
- Economics 1
- History 10
- Political Science 1
- Psychology 1
- Machine Shop 4
Nursery School

The Nursery School curriculum is designed to prepare men and women to teach in Nursery Schools, Head Start Programs, and Pre-School Classes.

These courses are required:                                   To complete a minimum of 24 units
   Home Arts 35, 36, 38,                                        select from any current courses
   40A, 40B, 41                                                  in the catalog.

Children's Centers, under joint supervision of the California State Department of Education and local school boards, have defined permit requirements for their teachers. To meet the needs of those preparing for the Children's Center Permit, a total of 60 units is required, 14 of which must be from the following courses:
   Home Arts 35, 36, 38, 40A, 40B, 41

The Children's Center Permit also serves as a standard for employment of teachers in many Head Start and Pre-School Classes.

Students who plan to follow a four-year course of study should plan their programs toward a transfer curriculum, see page 163 of this catalog.

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.

These courses are required:
   Vocational Nursing 1, 2, 3, 4, 5

Office Work (See Business-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.

These courses are required:                                     To complete a minimum of
   Art 3A                                                  24 units select from the following:
   Photography 1, 2, 3, 5, 7, 8                              Art 4, 5, 35
                                                          Chemistry 41 or 43
                                                          English 1-2
                                                          Journalism 1
                                                          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.

These courses are required:                                    (Minimum of 20 units selected
   (Minimum of 20 units selected                              from the following)
   from the following)                                          Police Science 1, 3, 4, 8, 10, 12, 14,
   16, 18, 20, 22, 24, 26, 30, 34, 36

Radio and Television Servicing (See Electronics Technician)

Real Estate (See Business)
Recreation Leadership

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

These courses are required:
Health and Physical Education 1, 10, 19, 20
Badminton, Gymnastics, Archery, Tennis, Volleyball, Basketball, Touch Football, Dance.
To complete a minimum of 13 units select from the following:
Psychology 1 or Psychology 10
Speech 3 or Speech 21
Police Science 1 or Police Science 18
Biology 21, 22
Music 20, 30 or Music 31A
Art 1 or Art 1A or Art 2 or Art 2B

Supervision

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

These courses are required:
(A minimum of 20 units selected from
the following.)
Supervision 1, 2, 3, 4, 5, 6,
7, 8, 9, 10, 11, 12, 13, 14, 15

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.

These courses are required:
Anthropology 2
Economics 7
Psychology 1, 31
Social Science 31-32
Sociology 1

Teacher Aide

This program is designed for mature women who wish to be employed helping teachers with records, typing, duplicating, filing, and classroom management generally.

These courses are required:
Business 1B, 7
Education 1
English 1
Psychology 10
Social Science 31
Speech 3 or Speech 21
To complete a minimum of 10 units select from the following:
Anthropology 2
Art 1 or Art 2
English 2
Health and Physical Education 1, 10
History 1, 2, 3, 4, 7, 8, 9, 10, 19, 20
Mathematics 50
Music 20
Psychology 1, 31
Science 31
Social Science 32
Sociology 1
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.

These courses are required:
Technical Illustration 65, 66, 67, 68

Select 10 units from the following:
Art 3A, 35
Engineering 3 or Architecture 3
English 31
Photography 1
Physics 45
Printing 1
Technical Illustration 69

Technical Machine Shop (Machinist)

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 preapprenticeship requirements.

These courses are required:
Machine Shop 1, 2, 3, 4

Select 6 units from the following:
Drafting 29 or equivalent
English 31, 32
Machine Shop 9
Mathematics 43 or equivalent, 50
Physics 45
Technical Education 46
Welding 17, 18

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.

These courses are required:
English 1 or 21A or 41
Theater Arts 3, 4, 5, 21, 22, 31, 34

To complete a minimum of 24 units
select from the following:
English 2, 25, 26
Technical Illustration 65
Theater Arts 9, 35
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 the MS program in business administration with a concentration in accounting. Listed below are suggested programs leading to bachelor's degree 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 program is specifically designed to provide among other specializations, 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 Bachelor of Science Degree programs in aeronautics have been designed to prepare the graduate for entry into a wide range of positions in the aerospace industry. All students receive a thorough training in the fundamentals of aviation integrated with mathematics, science and general education courses especially chosen for their applicability to the aerospace field. The opportunity for specialization is presented in the form of a 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 3A, 3B, 4A; 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.

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 1-3, 7, 13-14; English 1-2; an additional course in English or Speech; Mathematics 3A, 3B; course 3 of a foreign language; two courses in natural science; 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 be included: Economics 1-2, 7, 13-14; Mathematics 3A or 3B.
University of California, Los Angeles (Graduate)

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 1-2, 13-14, and Mathematics 3A, 3B.

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, 13, 14; Law 17; Mathematics 3A, 3B. See page 183 for general education requirements for California State College at Los Angeles.

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 1, 2, 13, 14; Law 17; Mathematics 3A, 3B. See page 183 for general education requirements for San Fernando Valley State College.

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*.

For the option in Business Education—Secondary Teaching Credential:
This program is designed for the student who wishes to prepare for a teaching career in business at the junior high school level or senior high school level. The following courses are required: Business 1A*, 1B*, 1C*, 3A-3B**, 5, 11.

*Transfer credit in Typing, 6 units maximum.
**Transfer credit in Shorthand, 10 units maximum.

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, 19, 20, 22, 23, 25, and at least 3 units chosen from courses in Art 1, 2; Music 20, 25, 26; or Philosophy 1, 2, 13-14, 16, 17); Mathematics 1, 3A, 3B, 14, 3 units; Social Sciences 12 units (3 to 6 units in Anthropology 2, Geography 5; 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 States 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.

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;

* See courses listed under these headings for The College of Letters, Arts, and Sciences on page 181.
Mathematics 3A, 3B, 4A, 4B; English 1 or Speech 3; Economics 1; German 1-2; History 17-18. One course in social science (see Letters and Science list, page 165). Must include one course from Art 1, English 5, or 19; 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, four courses in the social sciences, four courses in the humanities. For details on these courses refer to page 165 this Catalog.

Chiropractic

Los Angeles College of

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

At least 10 units (with laboratory) should be completed in this category.

Chemistry 1, 2
To complete a minimum of six units select from the following: Economics 1 Political Science 1 Psychology 1 History 17, 18

At least 6 units should be chosen from this category.

English 1, 2
Music 20
Electives to total 60 units.

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 a dental school.

It is recommended by Glendale College that a student completing a two-year curriculum include Art 51 and Art 52.

University of California, San Francisco

These courses are required:

Chemistry 1, 5, 6
English 1-2
Biology 1A-1B
Psychology 1-2

Electives from:

Biological Science
Foreign Languages (in addition to required units)
English Literature
Philosophy
Social Science
Music or Art Appreciation
History 5
Political Science 5-6
Sociology 1

Twenty semester units selected from the social sciences, humanities, and 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.

<table>
<thead>
<tr>
<th>These courses are required:</th>
<th>Electives from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1-2</td>
<td>Biological Science</td>
</tr>
<tr>
<td>English 1</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Biology 1A-1B</td>
<td>Foreign Languages</td>
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<tr>
<td>Speech 3</td>
<td>English Composition</td>
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<tr>
<td>Psychology 1</td>
<td>English Literature</td>
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<tr>
<td>History 5</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Political Science 5-6</td>
<td>Social Science</td>
</tr>
<tr>
<td>Sociology 1</td>
<td>Music or Art Appreciation</td>
</tr>
</tbody>
</table>

Dentistry, Pre-dental Curriculum

University of California, Los Angeles

Those wishing to enter the School of Dentistry must have completed a minimum of three full academic years of college work, including the following courses: Chemistry 1-2, 5-6; Physics 5-6; Biology 1A-1B; English 1-2; Psychology 1; and upper division embryology. Generally, the pre-dental student is advised to seek a sound liberal arts background in the humanities, social and behavioral sciences, in addition to the requirements listed above.

University of California, San Francisco

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, 5-6; Physics 5-6; Biology 1A-1B; English 1-2; Psychology 1-2. Twelve additional 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; 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; Philosophy 1, 2, 13-14, 16; 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; Machine Shop 5; Mathematics 3A; and Vertebrate Embryology. Recommended: Art 51-52; Chemistry 3, Mathematics 3B, 4A.

Dietetics

California State College at Los Angeles

Students planning to complete the work for the Bachelor of Science Degree should include the following courses:
- Chemistry 1-2, 5-6
- Biology 12
- Sociology 1, 2
- Anthropology 2
- Economics 13
- Biology 20 and 21
- Psychology 31
- Home Arts 25, 35
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; Mathematics 3A, 3B, 4A, 4B, 30; Physics 4A, 4B, 4C.

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, structural engineering/engineering mechanics 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.

Mathematics 3A, 3B, 4A, 4B; Chemistry 1, 2; Physics 4A, 4B, 4C; Engineering 3, 8, 10. One course in Data Processing is recommended.

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 3A, 3B, 4A, 4B; Physics 4A, 4B, 4C.

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

California State Polytechnic College at 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 3A, 3B, 4A, 4B; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10. Recommended: Engineering 41 or equivalent.

California State Polytechnic College at Pomona

Students who plan to transfer to the School of Engineering at Cal Poly, Pomona, should complete approximately 70 semester units if they hope to receive the Bachelor of Science Degree in a minimum of time. During April of the year the student becomes eligible to transfer, he should contact the department head of the Engineering major he wishes to pursue at Cal Poly, Pomona.

The following courses are recommended for all Engineering transfers: Mathematics 3A, 3B, 4A, 4B, 30; Physics 4A, 4B, 4C; Engineering 3, 4, 8*, 10; Chemistry 1.

*Engineering 8 required only for Electrical Engineering and Chemical Engineering.

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 3A, 3B; Physics 4A.
The second year should include: Engineering 8, 10; Health and Physical Education 1; Mathematics 4A, 4B; Physics 4B, 4C.
For the General Education requirement see page 183.

**Stanford**

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

**Departmental Majors:**
- Chemical Engineering
- Industrial Engineering
- Civil Engineering
- Materials Science
- Electrical Engineering
- Mechanical Engineering
- Aeronautics and
- Engineering Science
- Astronautics
- Product Design
- Applied Science
- Resource Strategy

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

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

In the first two years students should include in the course of study the following:
- Writing: English 1-2
- Humanities and Fine Arts: three courses
- Social Science: three courses
- Mathematics 3A, 3B, 4A, 4B
- Chemistry 1, 2
- Physics 4A, 4B, 4C

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

**University Requirements**

Since students majoring in engineering will automatically fulfill the last one of these requirements advisers and advisees need not be especially concerned with it.

**Mathematics (21 units)**
Appropriate courses in Mathematics, Statistics, Computer Science, etc. may be selected.

**Science (24 units):**
Appropriate courses in Physics, Chemistry, Biology, Geology, etc., may be selected.

**Engineering Breadth (30 units)**
This area is composed of 8 categories as follows:
1. Mechanics of Solids and Fluids
2. Electric Circuits and Devices
3. Thermodynamics
4. Materials Science and Properties
5. Logic and Computer Systems
6. Systems Analysis and Control
7. Transfer and Rate Processes
8. Decision Processes, Engineering Economy, and Design
The student's program must contain courses selected from not less than 5 of these categories for a total of at least 30 units. Three (3) of these 5 categories
should not be directly related to his engineering major. No more than 10 units in any one category can count toward satisfaction of the breadth requirement. Engineering Depth (36 units)
Consult COURSES & DEGREES for detailed information.
Free Electives (30 units)
Functional Balance
The adviser should be sure that all programs contain some courses with some aspects of: communication, analysis, synthesis, and experimentation.

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

Engineering students should have completed the following courses in high school: Mathematics, 4 units, including two years of algebra and trigonometry; physics, 1 unit; 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 3A, 3B, 4A, 4B; Physics 4A, 4B, 4C; Engineering 3, 4, 8, 10. Nontechnical electives including courses in biology, English, fine arts, humanities and social sciences.
*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 with junior standing or less 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. For Civil Engineering, Engineering 3, 4, 8, 10; for Electrical Engineering, Engineering 8; for Industrial Engineering, Engineering 8; for Mechanical Engineering, Engineering 3, 4, 8, 10; for Mineral Technology, Engineering 8, 10; for Engineering Sciences, 6 units of Engineering 3, 4, 8, 10.
**Students planning to transfer to Davis should also take English 1 and English 2 or Speech 3. Those planning to major in Chemical Engineering should take Chemistry 3 and 5, instead of Engineering 3, 4, and 8.
***Students intending to enter the School of Engineering and Applied Science at Los Angeles will partially meet upper division requirements by taking Engineering 8 and 10. Mathematics 30 will meet the lower division computer science requirement. However, admission to the School of Engineering and Applied Science does not require these courses.
****Students bound for the Aerospace and Mechanical Engineering Science majors at Revelle College should complete as many as possible of the Revelle breadth requirements, especially in mathematics and physics. They need not take the Glendale College engineering courses.
†Students planning to enter the College of Engineering at Santa Barbara are advised to include, in their Lower Division Programs, courses in Field and Circuits, electronics. These are not requirements for admission to the Upper Division, but they are excellent preparation. 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. Bachelor of Science 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 3A, 3B, 4A, 4B; Physics 4A, 4B, 4C; Engineering 1 and 3 (except for majors in Electrical or Mechanical Engineering); 10 (except for majors in Electrical Engineering); Psychology 1; United States History and Institutions. It must also include English 2 for majors in Civil Engineering.

**Fisheries and Wildlife Management**

At Humboldt State College the student may obtain either a Bachelor of Science or M.S. Degree in Fisheries, Forestry, and Wildlife Management. Bachelor of Science Degrees are also offered in Oceanography, Natural Resources, and Range Management. 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 is possible.

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

**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 and Conservation**

The School of Forestry and Conservation, 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; Chemistry 1; Economics 1, 2, 7; Geology 1; Mathematics 3A; 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 Conservation 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 Bachelor of Science and M.S. Degree in Forestry. Recommended lower division courses for Forest Management and Forest Science options include Biology 1A; Chemistry 1, 2; Mathematics 3A; Physics 5, 6; and Business 25. Forest Science majors should also include Biology 1B.
Geography

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

California State College at Los Angeles
   Required: Geography 1, 2, 5.

University of California, Los Angeles
   Required: Geography 1-2.
   Recommended: Mathematics 3A-3B.

University of California, Berkeley
   Required: Geography 1-2, 5

See page 163.

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 University of California at 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 3A, 3B, 4A, 4B; 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 University of California at Davis:
   Required: Chemistry 1-2; Geology 1-1L, 2-2L; Mathematics 3A, 3B, 4A; Physics 4A-4B-4C or 5-6; Mineralogy 1.
   Recommended: Mathematics 4A, 4B; Paleontology 1.

At University of California at Los Angeles:
   Biology 1A, 1B; Chemistry 1, 2; Geology 1-1L, 2-2L; Mathematics 3A, 3B, 4A, 4B; Paleontology 1; Physics 5-6.

See page 163.

History

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

At University of California at Berkeley:
   Required: History 1-2 or 7-8 or 8-9 or 7-9, and History 3-4 or 17-18.

At University of California at Los Angeles:
   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 University of Southern California:
   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 College at Fresno

Lower Division requirements for the Bachelor of Arts Degree in Industrial Arts:

Industrial Arts Major
   Engineering 1 or Drafting 31  
   Electronics 75  
   Printing 1, 2, 3  
   Metals 15  

Industrial Arts Minor - Drafting/Design
   Engineering 1 or Drafting 31  
   Architecture 9, 10, 11, 12  

Industrial Arts Minor - Electricity and Electronics
   Electronics 75  
   Metals 15  

Industrial Arts Minor - General Metals
   Engineering 1 or Drafting 31  
   Metals 15  
   Welding 17*  
   Machine Shop 5  

*Acceptable only if gas welding is included.

California State Colleges: Long Beach, San Jose

The following courses are recommended in addition to the General Education requirements of the preceding schools; Machine Shop 5; Art 5, 47; Metals 15; Welding 17.

See page 183.

California State College at Los Angeles

In addition to the completion of the General Education requirements (see page 183), the following courses must be elected.

Engineering 1; Supervision 13; Metals 15; Drafting 31; Electronics 71, 75; Photography 1-2.

Industrial Technology

California State College at Long Beach

Construction Option: Architecture 1, 3, 5, 9-12, 23.  
Note: Maximum of 24 units may be transferred.  
Chemistry 10; Business 31; Economics 1, Economics 11 or History 10; English 1; Health and Physical Education 10; Mathematics 2, 3A, 3B; Political Science 5, 6; Physics 5, 6; Speech 3.  

Electronics Option: Machine Shop 5; Electronics 71, 72, 73.  
Note: Maximum of 24 units may be transferred for courses in Technical Education.  
Chemistry 10; Business 31; Economics 1; Economics 11 or History 10; English 1; Health and Physical Education 10; Mathematics 2, 3A, 3B; Political Science 5, 6; Physics 5, 6; 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.  
Chemistry 10, Business 31; Economics 1; Economics 11 or History 10; English 1; Health and Physical Education 10; Mathematics 2, 3A, 3B; Political Science 5, 6; Physics 5, 6; Speech 3.
University of California at Davis

To be admitted to the School of Law at Davis in the professional curriculum leading to the J.D. Degree students must receive a Bachelor's Degree from a college or university of approved standing and take the Law School Admission Test.

Because many more students apply to the School than it is able to accept, it is important that a prospective student obtain the highest possible grades in college, particularly in the last two years prior to receiving the Bachelor's Degree, and that he score well on the Law School Admissions Test.

No specific college major is required for admission to the School of Law and there is no prescribed pre-legal program. It is important, however, that pre-legal students obtain mastery of the English language. They should be able to read rapidly and with comprehension and to express themselves clearly, completely, and concisely, both orally and in writing.

Students are admitted only on a full-time basis and only in September. For further details consult the Announcement of the School.

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 (See Criminology, Police Science)

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. San Jose State is primarily concerned with training librarians for elementary and secondary schools, and is 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 courses at the University of Southern California 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 oriented language. See page 163.

*Immaculate Heart will relocate in Claremont in the fall of 1971 when the entire college will become part of the Claremont College complex.

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, serology, biochemistry, clinical microbiology, hematology, blood bank procedures, and histologic techniques. 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 Allied Health Professions of the University of California School of Medicine (San Francisco) for a list of the required courses and for details of this curriculum.

Medicine

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 he 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.

Stanford University

The Medical College Admission Test is required of all applicants. While Stanford does accept an occasional student who presents only three years of undergraduate work at the time of matriculation in Medical School, prefer-
ence in the selection process is given to those who will obtain the Baccalaureate Degree before entering Stanford.

- Biological Sciences 10 units
  - Biology 1A, 1B
- Chemistry 16 units
  - Chemistry 1, 2, 3, 5, 6
- English 6 units
  - English 1, 2
- Physics 8 units
  - Physics 4A, 4B, 4C
- Mathematics 20 units
  - Mathematics 3A, 3B, 4A, 4B

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. Additional work should apply toward the elective and general education requirements along with courses in English, comparative anatomy, genetics and mathematics.

University of California, Davis

- Biology 1A-1B
- Chemistry 1-2, 5-6
- English 1-2
- Mathematics 3A-3B-4A
- Physics 5-6

University of California, Los Angeles

The following courses are required:
- English 1-2
- Physics 5-6
- Chemistry:
  - Inorganic chemistry—Chemistry 1-2
  - Organic chemistry—Chemistry 5-6
  - Quantitative Chemistry—Chemistry 3
- Biology 1A-1B
- Mathematics 3A (3B is recommended)

University of California, San Francisco

Ninety semester units of college work (60 units pre-medical in lower division school) is a minimum requirement for admission to the School of Medicine. These units must include the subjects in the following list:
- 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. It is recommended that additional courses be selected from the requirements in the College of Letters, Arts, and Sciences shown on page 181.

Loma Linda University

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

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; Chemistry 1-2; Home Arts 25.

University of California at Los Angeles
Chemistry 1, 2, 3, 5; Physics 5*; Biology 1A-1B and 12; English 1; 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. See page 168.
*Physics 5 is waived for students who have completed a one-year high school laboratory course.

Oceanography

Humboldt State College
Required courses: Biology 1A-1B; Chemistry 1-2; Geology 1-1L; Mathematics 3A-3B, 4A-4B; Physics 4A-4B-4C.

Optometry

University of California, Berkeley
A minimum grade point average of 2.25 is required, or 2.4 for students ineligible for admission to the University in freshman standing.
The following courses are required: Chemistry 1-2, 5-6; Mathematics 3A-3B; English 1-2, or English 1 and Speech 3; Physics 5-6; Psychology 1; Biology 1A-1B.

Los Angeles College of Optometry
Requires 60 units for entrance including:
Chemistry 1, 2
English 1-2
History 5 and Political Science 5
Mathematics 3A, 3B
Psychology 1-2
Biology 12
Art, Music, Literature 3 units*
Biology 1A, 1B
Foreign Language 8 units*
Health and Physical Education
Philosophy 1*
Physics 5-6
*Optional for Bachelor of Science Degree candidates.

Pharmacy

University of California, San Francisco
A minimum requirement for admission to the University of California School of Pharmacy is 60 semester units of transferable work, including the following courses:
Biology 1A-1B
Chemistry 1-2
Mathematics 3A
Physics 5-6
English 1-2
American History and Institutions
Six semester units chosen from the humanities, social sciences, and foreign languages, exclusive of courses used to satisfy the American History and Institutions requirements.

University of Southern California
Admission requires two years (60 semester units) of acceptable college work including the following courses:
Biology 1A-1B
Business 1A—(Typing, if not taken in high school—no unit credit)
Chemistry 1-2, 5-6
Economics 1 or 2
English 1-2
Humanities or additional Social Sciences—4 units
Mathematics 3A-3B
Physics 5-6
Psychology 1
Electives 10-13 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. On referral by a physician, they (1) evaluate the capabilities of patients by various physical tests; (2) treat patients by using therapeutic exercise and physical agents such as heat, cold, electricity and ultrasound; and (3) teach patients and their families appropriate home treatment and care—all with the aim of achieving the greatest possible restoration of function.

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

Accredited programs are approved by the Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. Six 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 California State College, Long Beach. The prerequisite courses and the type and length of the curricula vary; for information, write to the Directors of the Physical Therapy Programs.

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 181 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

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

See page 163.

Required: Physics 4A, 4B, 4C; Chemistry 1, 2; Mathematics 3A, 3B, 4A, 4B.
Recommended: A reading knowledge of German and French; Engineering 41.

Podiatry

California College of Podiatric Medicine, San Francisco

The candidate to the California College of Podiatric Medicine 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: Chemistry 1-2, 5; English 1-2; Physics 5-6; Humanities and Social Sciences 12 units.

Additional background in Chemistry, Embryology, Comparative Anatomy, Mathematics, Physics and Public Speaking is recommended. The students may have majored in any subject—the Natural Sciences, Social Sciences, Humanities, or Arts—but evidence of a balanced education as well as demonstrated interest and ability in the Natural Sciences is preferred.
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, 14, 16, 20; Health and Physical Education 10. 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. See page 183.

Political Science

Students majoring in political science should follow the program of studies outlined in the lower division requirements of the College of Letters and Science of the college or university to which they intend to transfer. The following required and recommended subjects should be included.

See page 163.

University of California at 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

The lower division requirements of the College of Letters and Science of the college or university to which they intend to transfer should be followed by students planning to major in psychology. The following required and recommended subjects should be included; see page 163.

California State College at Los Angeles

Required: Psychology 1, physiological psychology, Mathematics 1, college algebra.
Recommended: Foreign language.

San Fernando Valley State College

Required: Psychology 1-2.
Recommended: Statistics, biology, mathematics, philosophy, social science.

University of California at Los Angeles

Required: Psychology 1, Biology 1A-1B, two courses in Physics and/or Chemistry (Physics 5, 6, 10 and/or Chemistry 1, 2, 10), Mathematics 3A, 3B.
Recommended: Sociology, anthropology, philosophy, political science, statistics.
Note: The major in psychology or sociology is highly desirable in preparation for graduate study in social work.

Public Health

School of Public Health, University of California, Los Angeles

The School of Public Health offers only graduate curricula leading to Master's and Doctor's Degrees in various specialty areas; information about these curricula
is contained in the *Announcement of the School of Public Health*, Los Angeles. Since the Bachelor of Science Degree program in public health has been discontinued, students are advised to prepare for graduate programs in public health by obtaining a Bachelor’s Degree in one of the biological, social or physical sciences.

**Speech**

A curriculum designed to train students in the speech arts for the areas of public speaking, group discussion, radio, and television. Recommended courses for students who plan to pursue a speech major should include: Speech 3-4, 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 and secondary teaching requires a B.A. Degree and a fifth year consisting of 30 semester units of upper division or graduate work.*

*Specialization in junior college teaching requires five years of college work including 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 differences 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.

*University of California at Los Angeles:*

Specialization in elementary teaching requires a Bachelor’s Degree and a fifth year of college or university postgraduate course work in upper division or graduate level.

Specialization in secondary teaching requires a Bachelor’s Degree and a fifth year of college or university postgraduate course work in upper division or graduate level.

Specialization in junior college teaching requires a Master’s Degree, Doctor’s Degree or other postgraduate degree requiring not less than five years of college or university education. The degree must be in an academic subject matter area commonly taught in the public junior colleges. If the subject matter area is non-academic, an academic minor or minors is required.

**Pacific Oaks College, Teaching Nursery School, Kindergarten, and the Primary Grades**

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.
A student may enroll in a program leading to a California State Standard Teaching Credential with a specialization in elementary or early childhood teaching (pre-school through third grade). Pacific Oaks curriculum prepares for teaching in a wide variety of pre-school programs including Head Start Classes, and also for advanced study leading to such careers as parent education leadership, child welfare work, research, counseling and guidance, or child development laboratory teaching.

Completion of the recommended transfer program for Pacific Oaks College (see page 33) will also meet minimum requirements for the State permit for employment in Children's Centers, if the following electives are included: Home Arts 35, 40A, 41.

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 Doctor of Veterinary Medicine, however, for the past several years the D.V.M. graduates have averaged eight years of college.

The first step which must be completed is called the pre-veterinary medical curriculum. This consists of a series of required courses 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.

With the exception of vertebrate embryology and genetics the pre-veterinary medical curriculum may be completed at Glendale College. The following courses are required: Chemistry 1-2, 3, 5; Physics 5-6; Biology 1A-1B; English 1 plus English 2 or Speech 3; History 17-18. To complete the required 60 units the student should select courses in the social sciences, humanities or biological sciences which will best prepare him for a Baccalaureate Degree after transfer to a four year institution.
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.

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, 28.

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. For satisfactory course completion the student must have flown at least 36 total flight hours by the end of the semester.

2A—COMMERCIAL PILOT FLIGHT COURSE 3 UNITS

Prerequisite: Aerospace Technologies 1A and 1B 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. For satisfactory course completion the student should have 100 hours of flight time by the end of the semester.
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 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 instruction which meets the FAA requirements for the Commercial Pilot's Certificate. The flights are scheduled by the student at the airport and in addition the student must meet with the College flight supervisor as scheduled. Course completion requires 150 hours total flight time which will satisfy FAA requirements for the Commercial Pilot Certificate.

3—FLIGHT INSTRUCTOR FLIGHT COURSE 3 UNITS
Prerequisite: Private Certificate with 180 hours or Commercial Pilot's Certificate.

Note: Flight Training is contracted for by the student with an FAA approved flight school, and conducted independently of the Glendale 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 a Flight Instructor rating. The flights are scheduled by the individual at the airport and in addition he must meet the College flight supervisor at the scheduled period.

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. Upon completion of this course the student is prepared for the FAA instrument rating. Flight time: 30 hours of instrument flight training.

10—BASIC AERONAUTICS 5 UNITS
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, Aero-dynamics of Flight, Federal Air Regulations for the Private Pilot, and enroute procedures common to the private pilot.
Lecture 5 hours.

11—NAVIGATION 3 UNITS
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 3 UNITS
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 No. WE-13-25.
* Upon completion of this course the student will understand problems in meteorology as they affect the pilot.

13—AIRCRAFT STRUCTURE AND AERODYNAMICS 2 UNITS
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 2 UNITS
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, 14 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, both of which meet six hours per day, five days per week.
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.

*Note:* This class meets six hours per day, five days per week.

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.

*Note:* This class meets six hours per day, five days per week.

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, magneto, generators, and starting systems. The course content is based on standards required for FAA certificated schools. Approved FAA Mechanics School No. 3415.

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 5 UNITS
Prerequisite: Six months full-time employment in the aviation industry engaged in repair, maintenance, or overhaul of aircraft reciprocating powerplants.
Note: Aerospace Technologies 40 may not be taken for credit if student has completed Aerospace Technologies 21A and 21B.
The course presents the theory of operation, maintenance and overhaul of aircraft reciprocating and gas turbine engines electrical and lubrication systems and applicable Federal Aviation Administration regulations; inspections, forms and engine servicing.
Lecture 6 hours.

41—THEORETICAL AIRCRAFT POWERPLANT MAINTENANCE 5 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 prepare the student with the theoretical background necessary to pass the Federal Aviation Administration Written Examination for the powerplant rating. The course consists of the theoretical study of reciprocating and gas turbine fuel systems including float, pressure, and injection systems; propellers and propeller operation and governing systems; weight and balance; line maintenance and troubleshooting.

47—AIRPORT OPERATIONS 3 UNITS
Prerequisite: None. Aerospace Technologies 10 and 49 should be taken previously or concurrently.
This course is designed to acquaint the student with the practical airport problems as they exist today. The student is expected to be able to manage an airport or any diversified airport operation upon completion of this course.
The course intends to cover airport development, location, local advertising, financial requirements, air safety in the confines of the airport as well as traffic pattern management, airport lighting, deterioration and depreciation of airport property, fire and crash protection, familiarization with the Federal Aviation Agency and the National Transportation Safety Board, meteorological situations that affect airport operations, and control of air traffic.

48—FLIGHT STEWARDESS 3 UNITS
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.
AEROSPACE TECHNOLOGIES-ANTHROPOLOGY-ARCHITECTURE

49—AIR TRANSPORTATION 3 UNITS

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.

50—AIR TRAFFIC CONTROLLER 5 UNITS

Prerequisite: Aerospace Technologies 11, 12, 13, and 19 taken prior to or concurrently, or a Commercial Pilot's Certificate.

The course prepares students for the FAA Control Tower Operator Written Examination and assists them in meeting the requirements necessary to apply for the position of Air Traffic Control Specialist, and is of value to those students preparing for the position of Dispatcher, Meteorologist, Commercial Pilot, and positions concerned with aircraft operations. Student pilots and private pilots will find this course informative; students preparing for their Instrument Rating will receive much valuable information which will assist them in preparing for the written examination and the flight check. Lecture 4 hours, laboratory 2 hours. Aircraft Recognition and Performance, and Radio Telephone Procedures.

ANATOMY

See Biology 20.

ANTHROPOLOGY

2—GENERAL ANTHROPOLOGY—CULTURAL 3 UNITS

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

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

ARCHITECTURE

1—DRAFTING 3 UNITS

Prerequisite: None.

Note: Required for architecture majors who have not had at least one year of architectural drafting in high school. Recommended for art majors.

The fundamentals of drafting prerequisite to work in art and architecture; architectural symbols and conventions; plan and working drawings and building code requirements for a small home; scale detailing, framing and study of dimensioning.

2—ARCHITECTURAL DRAFTING 3 UNITS

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, 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.)
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. 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.

93—ARCHITECTURAL ENGINEERING DRAFTING (COMMERCIAL) 7 UNITS
Prerequisite: Architecture 9 or Architecture 91. Recommend: Art 4 and Art 6.
Preparation and coordination of a complete set of commercial working drawings from given specifications, including various presentation media in architectural drafting.
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, or Mathematics 2 or 44.
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.
Lecture 3 hours.

1A—ART OF THE AMERICAS (BEFORE 1600) 3 UNITS
Prerequisite: None.
Art of the Pre-Columbian (Inca, Maya, Aztec), Mexico, and South American cultures. American Indian art (especially Southwest Indian).
Lectures 3 hours.
1B—ORIENTAL ART 3 UNITS
Prerequisite: None.
A survey of the sculpture, painting, and architecture of China, Japan, India, and Persia, from prehistory to the present. An introduction to the philosophical ideas that influenced these trends. Lecture 3 hours.

1C—HISTORY AND APPRECIATION OF ART 3 UNITS
Prerequisite: Approval of the instructor.
Designed to offer students who have visited the cultural centers of Europe an opportunity to demonstrate that they have a first-hand knowledge of the painting, sculpture, and architecture which exist there in the buildings and in the museums, and that they understand how the art forms developed and how they are related.

2—HISTORY OF ART 3 UNITS
Prerequisite: None.
A survey and appreciation of the architecture, painting and sculpture from the Early Medieval period through the 19th Century. An introduction to the philosophical, economic 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.

2D—ART OF THE AMERICAS (1600 TO THE PRESENT) 3 UNITS
Prerequisite: None.
The art of the United States, Canadian, Mexican, South American cultures and their European origins. Lecture 3 hours.

2E—HISTORY OF MOTION PICTURES 3 UNITS
Prerequisite: None.
Note: Each week students will be required to see one film chosen from the instructor's list of pertinent films available on television and in local theaters. Historical introduction to the appreciation of motion pictures through the analysis of audio and visual techniques which can make the film an expressive means of communications.

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  
Prerequisite: Art 3A. (May be taken concurrently.)  
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  
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  
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  
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 2 UNITS

Prerequisite: Art 11.

A continuation of the study of water color painting for the more advanced student. The application of general principles and theories of painting in reference to the special qualities of the water color medium. Class problems include experimentation of a variety of techniques and stylistic approaches. Individual interpretation and expression are encouraged.

14—SCULPTURE 2 UNITS

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 2 UNITS

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 2 UNITS

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 2 UNITS

Prerequisite: Art 16. (Art 6 recommended.)

The application of principles of art in drawing and painting for the more advanced student.

Contemporary concepts in painting are explored. Individual assignments with emphasis on personal interpretation and expression.

18—ADVANCED DRAWING AND PAINTING 2 UNITS

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 2 UNITS

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.
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.

37—ADVANCED ADVERTISING DESIGN
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; the use of the Lost Wax Casting techniques; future arts and crafts instructors; training of jewelers for the profession; jewelry manufacturing and sales. Emphasis is placed on learning to design original pieces.
Lecture 3/4 hour every other week, laboratory 4 hours.

48—JEWELRY MAKING 2 UNITS
Prerequisite: Art 47.
The study and application of the 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; use of the Lost Wax Casting technique; future arts and crafts instructors; training of jewelers for the profession; jewelry manufacturing and sales. Emphasis is placed on learning to design original pieces.
Lecture 3/4 hour every other week, laboratory 4 hours.
ART-ASTRONOMY-BIOLOGY

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. Continue training to be used in jewelry manufacturing and designing.
Laboratory 4 hours.

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. Continue training to be used in jewelry manufacturing and designing.
Laboratory 4 hours.

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 as well as the University of California at San Francisco Examination.
Lecture 1 hour, laboratory 3 hours.

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: Chemistry 1 or Chemistry 10.
The first half of a one-year course designed for science majors covering fundamental biological processes; from the history and philosophy of biology through molecular biology, cell structure and function, physiology of the organism, and classification.
Lecture 3 hours, laboratory 3 hours.
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.

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.

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—INTRODUCTION TO BIOLOGY 4 UNITS
Prerequisite: None.
Designed to give a cultural appreciation of the scientific method and an elementary working knowledge of the fields studied. A liberalized approach to the study of living organisms, both plant and animal. The emphasis is on the dynamic processes and functional inter-relationships between living organisms. Primarily for students majoring in fields other than the biological sciences.
Lecture 3 hours, laboratory 3 hours.

23—EVOLUTION AND SOCIETY 3 UNITS
Prerequisite: None.
A presentation of selected aspects of the biological sciences having social implications for man in the twentieth century. The history and impact of Darwinism and Mendelism on biological and social thought and action.
Lecture 2 hours, laboratory 2 hours.

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.
BIOLOGY—BUSINESS

37—FIELD BOTANY  
Prerequisite: None.  
A study of the plants and the plant communities of the Southern California foothills, mountains, desert, and seashore.  
Lecture 3 hours, laboratory 6 hours.

BOTANY  
See Biology 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.

SUPERVISION  
See Supervision 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. Training is given in the preparation of memorandums, personal letters, business letters, 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. This program is designed to help the student to develop and integrate all of the "back-up" skills, knowledge, and techniques into a complete production typewriting skill. Emphasis is placed upon the development of accuracy and speed both in straight-copy material and in production projects and upon the application of related learnings.  
Lecture, demonstration, and laboratory 5 hours.

1.5—MAGNETIC TAPE SELECTRIC TYPEWRITING  
Prerequisite: A typing speed of at least 45 words a minute.  
Training in the operation of the Magnetic Type Selectric Typewriter (MT/ST), which is particularly adaptable to school, business, and government offices requiring volume typing, repetitive typing, and typing from rough draft, to produce personalized letters, statistical tables, forms, legal documents and instruments, and other forms of office communications.  
Demonstration and laboratory, 2 hours (8 weeks).
1L—LEGAL TYPING 1 UNIT
Prerequisite: Ability to type 50 words a minute, and concurrent enrollment in Business 3L or consent of instructor.
A course offering specific training in and supervision of preparation of legal documents.
Lecture and laboratory 2 hours.

1.9—PERSONAL TYPING 1 UNIT
Prerequisite: None.
Introductory typing which offers the student an opportunity to learn how to operate the typewriter for his own personal and academic use. It is especially designed for the academic student rather than for the vocational business student. Emphasis is placed on basic skill development and on theory concepts.
Demonstration, laboratory, homework 2 hours.

3A—BEGINNING SHORTHAND 5 UNITS
Prerequisite: Average grade of "C" in high school or college English; and completion of, or concurrent enrollment in, Business 1C or consent of instructor.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently. Students who have studied shorthand elsewhere and can take dictation at least 60 words a minute should enroll in Business 3B.
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: Business 3A; completion of, or concurrent enrollment in, Business 1C or consent of instructor; and completion of, or concurrent enrollment in, Business 5 or one year of full-time general office or clerical experience.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently. Students who have studied shorthand elsewhere and can take dictation at least 80 words a minute should enroll in Business 3C.
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 5 UNITS
Prerequisite: Business 3B; completion of, or concurrent enrollment in, Business 1C; and completion of, or concurrent enrollment in Business 5 or one year of full-time general office or clerical experience.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently.
Continuation of Business 3B. Designed to train stenographers to meet the demands of the business world. Emphasis is placed on mailable transcripts stressing transcribing techniques and English skills; and a minimum skill of 100 words a minute in taking dictation is developed.
Lecture, discussion, demonstration, and laboratory 6 hours.

3D—EXECUTIVE SHORTHAND 3 UNITS
Prerequisite: Business 3C.
Finishing course for the secretary which provides speed development with major emphasis on office-style dictation and transcribing skills.
Lecture, discussion, demonstration, and laboratory 3 hours.
3L—LEGAL SECRETARIAL TRAINING 3 UNITS
Prerequisite: Ability to take shorthand dictation at the rate of 80 words a minute and ability to type at the rate of 50 words a minute.
A course offering specialized training in legal phraseology, spelling, specific training in the preparation of legal documents, office routine and methods, and other legal procedure information.
Lecture and discussion, 3 hours.

3.9—NOTEMAKING FOR SCHOOL AND BUSINESS 1 UNIT
Prerequisite: None.
Principles of notemaking are integrated with the phonetic system of brief-hand for classroom and vocational use. Adaptable for notemaking in college classes, offices, business conferences, seminars, interviews, and for research report writing. Notemaking should be of interest to (a) all business majors who do not enroll in the secretarial programs, and (b) majors in other subject areas where a great deal of notemaking is essential.
Lecture 2 hours. (8 Weeks)

3R—SHORTHAND REVIEW (SEE NOTE)
Prerequisite: Prior training in shorthand insufficient for enrollment in Business 3B or 3C, and completion of or concurrent enrollment in Business 1B.
Note: A student may earn one unit each eight weeks of instruction, with a maximum of two units for this course.
A quick, thorough review of the theory of Gregg Shorthand, Diamond Jubilee Series, which will provide a brush up on principles, brief forms, phrases, and high-frequency words, and which will emphasize proper techniques and proportions, to enable the student to continue in the shorthand program.
Lecture and laboratory 2 hours. (8 Weeks)

3S—SHORTHAND SPEED DEVELOPMENT (SEE NOTE)
Prerequisite: One year of high school shorthand or equivalent.
Note: The student may earn one unit each eight weeks of instruction with a maximum of 4 units for this course.
A course designed to accomplish one or more of the following objectives: (a) To prepare students with previous training to enter Business 3B, (b) To enable students enrolled in Business 3B, 3C, or 3D to acquire additional practice in speed development, or (c) To provide a brush up for students who have completed Business 3D and are continuing in school. Dictation will range from 50 words a minute to 140 words a minute.
Lecture and laboratory 2 hours. (8 Weeks)

4.1—MEDICAL TERMINOLOGY 3 UNITS
Prerequisite: None.
Designed to familiarize those interested in the medical field with origin, correct spelling, pronunciation, meaning and current usage of common medical terms and their application to clinical records and reports. Emphasis will be placed on the roots, prefixes, suffixes, and word combinations.
Lecture 3 hours.

4.2—MEDICAL TERMINOLOGY 3 UNITS
Prerequisite: Business 4.1.
Continuation of Business 4.1. Designed to provide an adequate vocabulary for persons interested in employment in the medical profession. Emphasis will be placed on the roots, prefixes, suffixes, and word combinations, as well as medical abbreviations, symbols, and terms common in patients' records and laboratory reports.
Lecture 3 hours.
4.5—MEDICAL ASSISTANT (ADMINISTRATIVE)  3 UNITS
Prerequisite: Present employment or six months of previous experience in a medical office or enrolled in the medical training program.
A course offering an introduction to the medical office and concentrating on four critical areas of medical office training: Career guidelines and professional qualifications, meeting and handling patients, processing medical records and forms, and managing the medical office. Training will be applicable in office of physician, medical clinic, hospitals, and allied facilities.
Lecture 3 hours.

5—OFFICE ORIENTATION  3 UNITS
Prerequisite: A typing speed of at least 30 words a minute.
Note: Business 15, English 21A, 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.

7—STENO-Clerical Procedures  1 UNIT
Prerequisite: A typing speed of at least 30 words a minute.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently.
Development of proficiency in the preparation of masters for, and operation of, the mimeograph and spirit duplicators; photocopier; and intensive training in filing and records management. Emphasis is placed upon the application of skill and judgment in the performance of essential office duties.
Demonstration and laboratory 2 hours.

8.1—MACHINE TRANSCRIPTION, BUSINESS  1 UNIT
Prerequisite: Typing speed of at least 40 words a minute or concurrently enrolled in a typing class.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently.
Development of proficiency in the operation of transcription machines. Students will type business communications from dictation on the machine, and they will apply transcription techniques necessary for mailable copy.
Demonstration and laboratory 2 hours.

8.2—MACHINE TRANSCRIPTION, LEGAL  1 UNIT
Prerequisite: Typing speed of at least 40 words a minute or concurrently enrolled in a typing class.
Note: Business 15, English 21A, or English 1 should precede or be taken concurrently.
Development of proficiency in the operation of transcription machines. Students will type legal communications from dictation on the machine, and they will have practice in typing legal forms commonly used in legal offices. Emphasis will be placed on excellence in typing and proficiency in use of English skills; such as, spelling, grammar, punctuation, etc.
Demonstration and laboratory 2 hours.
8.3—MACHINE TRANSCRIPTION, MEDICAL
Prerequisite: Typing speed or at least 40 words a minute or concurrently enrolled in a typing class.
*Note:* Business 15, English 21A, or English 1 should precede or be taken concurrently.
Development of proficiency in the operation of transcription on the machine, and they will have practice in typing medical forms commonly used in medical offices. Emphasis will be placed on excellence in typing and proficiency in use of English skills; such as, spelling, grammar, punctuation, etc.
Demonstration and laboratory 2 hours.

9—BUSINESS MACHINES
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.

11—INTRODUCTION TO BUSINESS ORGANIZATION AND MANAGEMENT
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
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, 21A 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
Prerequisite: Business 15 or English 1 or English 21A.
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:* Business 29 should precede or be taken concurrently. Students may 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 and on control panel wiring through practical exercises which are typical of those performed in existing punched card processing installations. Emphasis is placed on data processing concepts.
Lecture 2 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 compiler languages. Laboratory experience is provided on the IBM 1620 electronic digital computer.
Lecture 3 hours, laboratory 2 hours.

26—COMPUTER PROGRAMMING II
Prerequisite: Business 25. Business 21 or Economics 13 recommended.
An advanced course in the programming of electronic digital computers with emphasis on sequential and random access file organization, maintenance, and retrieval techniques. Includes program timing. Laboratory experience is provided, using the IBM 1620 Monitor Control system.
Lecture 3 hours, laboratory 2 hours.

27—INTRODUCTION TO IBM SYSTEM/360 PROGRAMMING PRINCIPLES
Prerequisite: A grade of "C" in Business 23 or equivalent work experience in our knowledge of data processing and computer systems. Business 25 recommended.
An introduction to third generation computer concepts through an analysis of the IBM System/360 — components of the system, how the computer operates, and basic programming principles. Emphasis is on input and output devices and channels, characteristics of the central processing unit, data
representation, the supervisor program, data management, magnetic tape concepts, direct access storage devices, programming systems, teleprocessing, and multiprogramming.

Lecture and discussion, 3 hours.

28—DATA PROCESSING SYSTEMS  
Prerequisite: Business 24 or experience operating Tab machines and Business 26. Business 21-22 or Economics 13-14 and Mathematics 1 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 he 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.
Lecture, class 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.

51—WOODWORK
Prerequisite: None.
Note: Maximum credit per semester will be 5 units. Proportionally less credit may be earned for carrying less than a full schedule. A maximum of 20 units of credit will be allowed for Carpentry 51.
Covers the basic and advanced technical knowledge and skills necessary to perform the operation of machine and hand tools. Workmanship, construction and functional design are emphasized, particularly in practical projects for home use and construction. Projects for class work may be selected by enrollees.

CARPENTRY
(SEE NOTE)
CHEMISTRY

1—GENERAL CHEMISTRY 5 UNITS
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 5 UNITS
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 4 UNITS
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 3 UNITS
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 3 UNITS
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 5 UNITS
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.

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. This course will satisfy the chemistry requirement for many schools of nursing.

An introductory course emphasizing the essential principles of chemistry with a descriptive survey of chemical facts. Reference is made to industrial and practical home chemistry.

Lecture 3 hours, laboratory 3 hours.

COSMETOLOGY

1—WIG AND HAIRPIECE SERVICING I

Prerequisite: None.

This course offers basic techniques in the skill of wig servicing. Emphasis is placed on fundamentals for those students who have never experienced workings with hair or hairpieces. This service does not require a California license.

2—WIG AND HAIRPIECE SERVICING II

Prerequisite: A Cosmetology License, or be a senior cosmetology student in high school, or have one thousand hours of cosmetology training.

Emphasizes skill for achieving satisfactory results in individual wig styling, coloring, conditioning and servicing. Develops important personal qualifications, stresses how wigs are made, fitted and altered as well as how to recognize types of wigs and hairpieces available. Outlines the importance of knowledge of wigs in regards to buying and selling them and prepares the student on the proper care and handling of wigs and hairpieces.

DEVELOPMENTAL STUDIES

98—DEVELOPMENTAL STUDIES

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

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

The Program has been developed to assist students who have personal inadequacies; such as, lack of goals, inappropriate educational plans, lack
of effective study habits, emotional disturbances, cultural deprivation and
genral inability to realize their academic or vocational potential.
Students enrolling in the Developmental Studies Program, which meets
8-11 a.m. daily, will carry twelve and one-half units, including the follow-
ing courses:

English 99—Basic Communications, 6 units
Mathematics 50—Basic Mathematics, 2 units
Psychology 21—Occupational Planning, 1 unit
Psychology 51—Psychology of Adjustment, 3 units
Health and Physical Education Activity, ½ unit

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

DRAFTING

29—FUNDAMENTALS OF DRAFTING FOR TECHNICIANS 2 UNITS
Prerequisite: None.

Note: A recommended course for non-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 8 UNITS
Prerequisite: Mathematics 43 or Mathematics 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, revolu-
tions, 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 7 UNITS
Prerequisite: Drafting 31 or Technical Illustration 65, Mathematics 44 taken concur-
tently, 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 prac-
tices. Special emphasis on industrial and military specification dimensioning
practices in drawing detail and assembly drawings in accordance to pro-
fessional standards.

Application of tolerancing, metal fits between parts, mating surfaces which
will be machined for drawing production detail drawings. Preparing pro-
duction casting, forging, gear, and cam drawings of professional quality to
meet military specifications and production processes and materials. Detail-
ing structural steel drawings and attaching by rivets and welding.

33—ELECTRICAL DRAWING AND ELECTRONIC PACKAGING 7 UNITS
Prerequisite: Drafting 31, Physics 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 dia-
grams, 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 a 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 electrical-electronic drafting techniques and procedures; related information for drawing and interpreting drawings and pictorial presentations. Stresses fundamentals through printed circuit board design.

ECONOMICS

1—PRINCIPLES OF ECONOMICS 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
An 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.

5—THE AMERICAN ECONOMY 3 UNITS
Prerequisite: None.
An introduction to the American economy. A foundation for understanding it and the problems that it faces. A description of the important institutions of our system and an analytical approach to the understanding of the basic economic problems.

7—PROBABILITY AND STATISTICS 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
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 "B" average in United States History and Government courses in high school or 12 units college courses with a "C" average.
A history of economic development of the United States from its settlement to the present. Emphasis is placed on the growth and development of institutions and movements in our modern society. This course meets the California State requirement in American History.

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, tax accounting, systems design and automated data processing. Lecture and laboratory 5 hours.
14—PRINCIPLES OF ACCOUNTING
Prerequisite: Economics 13.
A continuation of Economics 13 which deals with partnership and corpo-
tation accounts, manufacturing and cost accounting and supplementary
statements.
Lecture and laboratory 5 hours.

EDUCATION

1—INTRODUCTION TO EDUCATION
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-
registration Examination or a "B" average in United States History and Government
courses in high school or 12 units of college courses with a "C" average.
An introductory course designed to acquaint the student with the field of
Teaching, with the personal and professional qualifications needed by the
successful teacher, with the duties and opportunities of the professional
educator, and with the availability of teacher training facilities and require-
ments.

ELECTRONICS

71—BASIC ELECTRONICS I
Prerequisite: Mathematics 43 or Mathematics 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 applica-
tion 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, oscillo-
scopes, and other test equipment. Practice in layout and construction of
simple electronic circuits.

72—BASIC ELECTRONICS II
Prerequisite: Electronics 71 and concurrent enrollment in Mathematics 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 prac-
tical circuit application.
Principles of vacuum tubes, AF and RF vacuum tube amplifiers, power sup-
plies, and oscillators.
Lab experiments with vacuum tubes, transistors, amplifiers, oscillators and
power supplies. Use of signal generators, oscilloscopes and other test instru-
ments.

73—ADVANCED ELECTRONICS
Prerequisite: Electronics 72, and concurrent enrollment in one of the following:
Metals 15, Drafting 29, 38, Physics 45 or Technical Education 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. Trans-
sistors 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 7 UNITS
Prerequisite: Electronics 73, and concurrent enrollment in one of the following: Metals 15, Drafting 29, 38, Physics 45 or Technical Education 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, and computer logic circuits. Lab includes troubleshooting, test instrument use and maintenance, and experiments with special circuits.

75—BASIC ELECTRONIC THEORY I 3 UNITS
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 3 UNITS
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.

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, and 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, and 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.

*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.

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, hand 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 4A.
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 nonferrous metals, and engineering properties of organic and inorganic compounds. Applications of basic principles to the evaluation, selection, and use of engineering materials.
10—STATICS  
Prerequisite: Physics 4A-4B and Mathematics 4A. (Physics 4B and Mathematics 4A 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.

41—ENGINEERING COMPUTATIONS  
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  
Prerequisite: None.

Note: For nonscience 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  
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 21A.

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  
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  
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  
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.
19—INTRODUCTION TO WORLD LITERATURE
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
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.

21A—COMPOSITION AND READING
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 student who is aiming toward an Associate in Arts Degree or who needs additional instruction in the techniques of writing before attempting English 1. English 21A 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.

21B—READING LITERATURE
Prerequisite: A satisfactory score on the English Placement Examination, or a grade of “C” or better in English 41.
An introductory study of the major forms of creative literature: the short story, the novel, the drama, the poetry, drawn from the best modern authors. The course is planned to develop a greater appreciation and understanding of the literature of our time with special emphasis on the literary expression of contemporary issues. It is designed for the non-English major and for the student planning to earn an Associate in Arts Degree.

22—SURVEY OF AMERICAN LITERATURE
FROM THE COLONIAL PERIOD TO THE CIVIL WAR
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
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.
ENGLISH

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 to 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 21A, or Business 15.
A course designed especially for students taking technical education courses. It includes 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 21A. 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 21A 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 2 UNITS
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, 21A, 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 21A. 
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.

99—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.

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 3 UNITS
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 3 UNITS
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 3 UNITS
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 3 UNITS
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 3 UNITS
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, and apparatus maintenance.

9—RESCUE PRACTICES 3 UNITS
Prerequisite: Three units of Fire Science or employment in a related occupation or volunteer in a related occupation.
Rescue practices, the human body, emergency care of victims, childbirth, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards, rescue problems, and techniques.

10—FIRE COMPANY ORGANIZATION AND PROCEDURE 3 UNITS
Prerequisite: None.
Review of fire department organization; fire company organization; the company officer; personnel administration; communications; fire equipment; maintenance; training; fire prevention; fire fighting, company fire fighting capability; records and reports.

FRENCH

1—BEGINNING FRENCH 4 UNITS
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 21A.
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.

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.


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

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

Prerequisite: None.

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

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.
GEOLOGY

1—PHYSICAL GEOLOGY
Prerequisite: None.

Note: Second semester standing or a good high school record recommended.
A study of the physical materials and processes of the earth.
Lecture 3 hours.

1L—PHYSICAL GEOLOGY
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.
Laboratory 3 hours.

2—HISTORICAL GEOLOGY
Prerequisite: None.

Note: Second semester standing or a good high school record recommended.
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.
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.
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 21A.

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.

Continuation of German 1. Completion of elementary grammar essentials. Reading and interpretation of prose of increasing difficulty. Conversation, dictation, and composition. Some knowledge of German tradition and character folklore. Essential geographical and historical data concerning German people.
In addition to the regular class hours, the student must spend two half-hour periods a week in the laboratory.

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

A review of elementary grammar, a study of word analysis, sentence structure, idioms, and composition. Intensive reading of historical and bellettristic 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.

GOVERNMENTAL SUPERVISION AND MANAGEMENT

1—PUBLIC SERVICE ADMINISTRATION PRACTICES

Prerequisite: Supervision 1.
A Survey course dealing with management analysis techniques; systems analysis and systems implementation; organization audits and appraisal; work and time measurement techniques; the organization (chart) — its structure and communications system; forms and records management; manuals and other administrative directives; work simplification; techniques of work-flow and process charting; reports control.

2—FEDERAL ORGANIZATIONS, FUNCTIONS, AND RELATIONSHIPS

Prerequisite: Employment in a Federal Government Agency or Governmental Supervision and Management 1.
The American Federal System in the administration of public policy; its constitutional characteristics; Federal, State, Regional, and Local Organization structure and relationships; functional and administrative coordination; Federal Executive Boards; the Regulatory Commission; Regional Authorities; the Government Corporation; Executive Office of the President; Congressional Committees; the Federal Judiciary structure; the Cabinet.

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 or (5) those enrolled students who have completed satisfactorily one-half unit of health and physical education activity in each of four semesters. 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

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  1/2 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  1/2 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.

25A—PADDLE TENNIS  1/2 UNIT
Prerequisite: None.
Instruction and practice in the basic strokes, fundamental techniques and rules of the game. A sport very similar to regular tennis.

26A—TOUCH FOOTBALL  1/2 UNIT
Prerequisite: None.
Instruction and practice in fundamentals, with the development of team play and competition.

26B—INTERMEDIATE FOOTBALL  1/2 UNIT
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)  1 UNIT
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  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 basic strokes, fundamental techniques and rules of the game.
HEALTH AND PHYSICAL EDUCATION FOR MEN

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.

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  ½ UNIT
Prerequisite: None.
Instruction in the rules and practice in the fundamental techniques of volleyball. Development of team play and competitive participation.

37B—INTERMEDIATE VOLLEYBALL  ½ UNIT
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  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.
38B—INTERMEDIATE BADMINTON ½ UNIT
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.

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.
55—BODY MECHANICS
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
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—BEGINNING FOLK DANCING—COEDUCATIONAL
Prerequisite: None.
Instruction and participation for recreational groups in American cowboy, square, and circle dancing.

71B—INTERMEDIATE FOLK DANCING—COEDUCATIONAL
Prerequisite: Health and Physical Education 71A, or equivalent.
Instruction and participation for recreational groups in American cowboy, square, circle and folk dances.

72A—BEGINNING ARCHERY—COEDUCATIONAL
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
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
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
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 fundamental skills of social dance.

74—BADMINTON—COEDUCATIONAL
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.
HEALTH AND PHYSICAL EDUCATION FOR MEN

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—BEGINNING 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.

77B—INTERMEDIATE VOLLEYBALL—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 77A or equivalent.
Instruction and practice in volleyball techniques with team tournaments.

77C—ADVANCED VOLLEYBALL—COLLEGE RECREATION ASSOCIATION—COEDUCATIONAL 1 UNIT
Prerequisite: Health and Physical Education 77B or equivalent.
Development of advanced techniques in volleyball for competitive participation with other junior colleges.

78A—BEGINNING MODERN DANCE—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction in the fundamentals or rhythmic forms with practice in individual and group composition.

78B—INTERMEDIATE MODERN DANCE—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 78A 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.
HEALTH AND PHYSICAL EDUCATION FOR MEN-WOMEN

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.

85A—PADDLE TENNIS—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction and practice in the basic strokes, fundamental techniques and rules of the game. A sport very similar to regular tennis.

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 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, or (5) those enrolled students who have already completed satisfactorily one-half unit of health and physical education activity in each of four semesters.

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

It is recommended that a variety of activities be taken during a student’s attendance at Glendale College. Each course should be taken one semester only.

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.

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 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.

4—ELEMENTARY SCHOOL RHYTHM ACTIVITIES 1 UNIT
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: basketball, volleyball, 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, volleyball, and softball.
Participation in class tournaments.

21C—ADVANCED SPORTS—COLLEGE RECREATION ASSOCIATION 1 UNIT
Prerequisite: Health and Physical Education 21B or equivalent.
Development of advanced techniques in basketball, volleyball and softball for competitive participation with other junior colleges.

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.

27C—ADVANCED TENNIS—COLLEGE RECREATION ASSOCIATION 1 UNIT
Prerequisite: Health and Physical Education 27B or equivalent.
Development of advanced techniques for competitive participation with other junior colleges.
38A—BEGINNING BADMINTON ½ UNIT
Prerequisite: None.
Instruction in the rules and practice in fundamentals, development of singles and doubles play, and competitive participation.

38B—INTERMEDIATE BADMINTON ½ UNIT
Prerequisite: Health and Physical Education 38A, or equivalent.
Instruction in the rules and practice in fundamentals, development of singles and doubles play, and competitive participation.

55—BODY CONTOURING AND CONDITIONING ½ UNIT
Prerequisite: None.
Conditioning exercises to increase body flexibility, and increase cardio-respiratory endurance, and strength of musculature in various parts of the body; to develop skilled body control with respect to agility, balance, and coordination; and to produce skills in relaxation.

60—ADAPTED ACTIVITIES ½ UNIT
Prerequisite: None.
A class for the student whose medical examination indicates that she should take restricted activities. Rest, or limited activities as the need is indicated on the health record.

71A—BEGINNING FOLK DANCING—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction and participation for recreational groups in American cowboy, square, circle and folk dances.

71B—INTERMEDIATE FOLK DANCING—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 71A, or equivalent.
Instruction and participation for recreational groups in American cowboy, square, circle and folk 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 skills of social dance.

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 fundamental skills of social dance.
74—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.

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—BEGINNING VOLLEYBALL—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction and practice in volleyball techniques with team tournaments.

77B—INTERMEDIATE VOLLEYBALL—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 77A or equivalent.
Instruction and practice in volleyball techniques with team tournaments.

77C—ADVANCED VOLLEYBALL—COLLEGE RECREATION ASSOCIATION—COEDUCATIONAL 1 UNIT
Prerequisite: Health and Physical Education 77B or equivalent.
Development of advanced techniques in volleyball for competitive participation with other junior colleges.

78A—BEGINNING MODERN DANCE—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction in the fundamentals of rhythmic forms with practice in individual and group composition.

78B—INTERMEDIATE MODERN DANCE—COEDUCATIONAL ½ UNIT
Prerequisite: Health and Physical Education 78A 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.
HEALTH AND PHYSICAL EDUCATION FOR WOMEN—HISTORY

79—BOWLING—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction and practice in the fundamental techniques and rules of the game.

85A—PADDOLE TENNIS—COEDUCATIONAL ½ UNIT
Prerequisite: None.
Instruction and practice in the basic strokes, fundamental techniques and rules of the game. A sport very similar to regular tennis.

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 “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
Note: Students who have taken History 8 will receive only one unit of 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 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
Note: Students who have taken History 9 will receive only one unit of 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 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
A general survey of the history of 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 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
A general survey of the history of 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 2 UNITS
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) 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general 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 (French Revolution 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 "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Note: Students who have taken History 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 (Carolingian Empire to the Present) 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Note: Students who have taken History 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 "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Note: This course allows only one unit of credit for students who have
completed History 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

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A survey of the discovery, exploration, and settlement of Mexico, California, Oregon, Washington, British Columbia, and Alaska. Emphasis is placed upon the development of their particular political, economic, and cultural institutions, along with their relationships with each other and the rest of the world.

17—HISTORY OF THE UNITED STATES

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Note: Second semester standing is recommended for all students. History 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

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

Note: History 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

Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.

A general survey of East Asian civilization from antiquity through the nineteenth century. Primary emphasis is placed upon the political, religious, social, and economic development of China and Japan with integrated units on Korea and Southeast Asia.

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HISTORY-HOME ARTS

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 "B" average in United States History and Government 
courses in high school or 12 units of college courses with a "C" average. 
History 19 is recommended. 
A general survey of China, Japan, Korea and Southeast Asia in the inter-
national 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 commercial 
pattern or a pattern of the student's own design and a hand project using 
four different stitches.

12—ADVANCED CLOTHING  
3 UNITS  
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.

17—APPAREL DESIGN  
8 UNITS  
Prerequisite: Home Arts 11 or equivalent.  
Pattern Making and Design is taught in Home Arts 17. It presents the infor-
mation and demonstrates the skills designed to develop in the student the 
ability to: make a block pattern from standard measurements, then from 
individual measurements; apply the knowledge gained therefrom to various 
types of patterns used in the women's apparel trade and to make finished 
garments. Three projects are required: one sports dress, one dressy dress or 
formal, one additional garment. 
Lecture 6 hours, laboratory 9 hours.

18—APPAREL DESIGN  
8 UNITS  
Prerequisite: Home Arts 17.  
Crotch items and children's clothing are taught in Home Arts 18 which pre-
sents the information and demonstrates the skills to develop in the student 
the ability to: make an adult's and child's basic crotch pattern, the basics for 
children's clothing, 2 to 6X size range, and apply the basics to various types 
of garments in each group, as well as making the finished garments. 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. 
Lecture 6 hours, laboratory 9 hours.

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19—ADVANCED APPAREL DESIGN 8 UNITS
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.
Lecture 6 hours, laboratory 9 hours.

20—ADVANCED APPAREL DESIGN 8 UNITS
Prerequisite: Home Arts 17.
Draping, taught as Home Arts 20, presents the information and demonstrates the skills necessary to develop in the student the ability to: Work individually using a custom dress form to drape various types of blouses, skirts, dresses, coats, and suits employing both French draping and flat table draping; make alterations, organize and manage shop, and run work room. Garments required: drape one sports dress, drape one dressy dress or formal.
Lecture 6 hours, laboratory 9 hours.

25—ELEMENTS OF NUTRITION 2 UNITS
Prerequisite: None.
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.
Lecture 3 hours.

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.

40A—PRINCIPLES AND PRACTICES 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.
Lecture 3 hours.

40B—PRINCIPLES AND PRACTICES IN PRE-SCHOOL
EDUCATION  3 UNITS
Prerequisite: Home Arts 35 and verification of bi-annual chest X-ray.
This course enables the student to participate in the entire routine of a
children’s center—first as an observer and then as a teacher’s aide. Questions
arising from experiences in practice teaching at the children’s centers are
discussed and research is done.
Lecture 2 hours, laboratory 3 hours.

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 exam-
ined.
Lecture 2 hours.

COSTUME CONSTRUCTION
See Theater Arts 23.

INTERIOR DESIGN
See Art 29.

MARRIAGE AND FAMILY LIVING
See Psychology 31.

SILK SCREEN PRINTING
See Art 23-24.
JEWELRY

47—JEWELRY AND METAL DESIGN 2 UNITS
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 handwrought process. The study of and the cutting of precious and semiprecious stones in cabochon techniques. Emphasis is placed on future Industrial Arts Instructors and Craftsmen.

48—JEWELRY AND METAL DESIGN 2 UNITS
Prerequisite: Jewelry 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. Emphasis is placed on Future Industrial Arts Instructors and Craftsmen.

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 score on English Placement Examination or a grade of “B” or better in English 41, or a grade of “C” or better in English 21A.

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 over-all emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the Campus Newspaper El Vaquero.
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 over-all emphasis on the function and responsibility of the newspaper. Second semester stress is on interpretative reporting. Class produces the Campus Newspaper *El Vaquero*.

## LAW

### REAL ESTATE LAW
See Real Estate 7.

### 17—BUSINESS LAW  3 UNITS
Prerequisite: None.
A study of law as it influences business conduct, including growth of law and recent changes, especially the new Uniform Commercial Code, and principles of contracts, sales and agency. Cases, lecture, and discussion 3 hours.

### 18—BUSINESS LAW  3 UNITS
Prerequisite: Law 17.
Deals with real and personal property, negotiable instruments, 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 Mathematics 43 or Mathematics 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.
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 or Machine Shop 5 and concurrent enrollment in Mathematics 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, Physics 45 or Technical Education 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, Physics 45 or Technical Education 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: Working in a machine shop or allied field.

Introductory machine shop training program offered for men currently working in industrial machine shops or allied fields. This program is set up primarily to upgrade and review technical skills and related knowledge of industrial workers.

Lecture 2 hours, laboratory 7 hours.

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  (SEE NOTE)
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  7 UNITS
Prerequisite: Machine Shop 4 and concurrent enrollment in one of the following: Welding 17, Drafting 29, Physics 45 or Technical Education 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  5 UNITS
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  3 UNITS
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.

3A—CALCULUS AND ANALYTIC GEOMETRY  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 or equivalents.
This is the first of a sequence of three courses which combines the subject matter of analytic geometry and calculus. Functions and their graphs are studied with special attention to differentiation, indefinite and definite integrals with applications.
Lecture 5 hours.
3B—CALCULUS AND ANALYTIC GEOMETRY

Prerequisite: Mathematics 3A.
Definite integrals, transcendental functions, conic sections, and vectors in the plane, with applications.
Lecture 5 hours.

4A—CALCULUS AND ANALYTIC GEOMETRY

Prerequisite: Mathematics 3B.
Indeterminate forms, improper integrals, vectors in three dimensional space, solid analytic geometry, differential calculus of functions of several variables, multiple integration, infinite series, and differential equations.
Lecture 5 hours.

4B—DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA

Prerequisite: Mathematics 4A.
Differential equations including applications, La Place transforms, vector spaces, linear transformations and matrices, matrix algebra, determinants and solutions of systems of equations.
Lecture 5 hours.

10—INTERMEDIATE ALGEBRA FOR BUSINESS
(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

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

Prerequisite: Mathematics 1 or Mathematics 12.
Elementary differential and integral calculus and curve fitting, with applications to business and economics.

30—FORTRAN II PROGRAMMING

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.

43—TECHNICAL MATHEMATICS 2 UNITS
Prerequisite: A satisfactory score 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 MATHEMATICS 3 UNITS
Prerequisite: Mathematics 43 or a satisfactory score on the Mathematics Proficiency Examination plus Mathematics 41 or one year of high school algebra.

A course in practical mathematics covering those areas most useful for trade and technical occupations. Phases covered include: Percent, Ratio and Proportion, Areas and volume, Trigonometry, Logarithms, Slide Rule, and Mathematical Tables.

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, percent, basic units of measure, and properties of decimal number system. This course will fulfill the mathematics requirement for the Associate in Arts Degree.

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 includes theory and practice in metal working, pattern drafting, heat-treating, foundry, welding, art metal and metals in everyday living. A suggested related course for engineering students.
MINERALOGY

1—MINERALOGY

Prerequisite: Chemistry 1 or Chemistry 10 or Chemistry 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

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 Scintillometer for identification of uranium-radium bearing ores.
MUSIC

10—FUNDAMENTALS OF MUSIC
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
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.

16—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 Music 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 Music 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 Music 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, Music 11 or Music 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

(See Note)

Prerequisite: None.

Note: This course may be taken for one unit each semester for a total of four semesters (4 units). A beginning course in the appreciation and performance of standard choral literature, with special emphasis on principles of part singing, vocal control, interpretation, diction, phrasing, and breath control. Public performances may be required.

31A—COLLEGE CHOIR

Prerequisite: Music 30 or at least one semester of choral experience in high school and evidence of vocal ability and musicianship. Admission by audition only.

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 Music 31B may not earn more than eight semester units. Students may not transfer from Music 31B to Music 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

Prerequisite: Music 30 or at least one semester of choral experience in high school and evidence of vocal ability and musicianship. Admission by audition only.

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

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—CHAMBER CHORALE

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 Music 35: A sufficiently accurate ear to sing in tune.
Prerequisite for Music 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.

38—PRIVATE STUDY IN MUSIC

(SEE NOTE)

Prerequisite: All students receiving credit for private instruction will be required to obtain the consent of the Music Department and be concurrently enrolled in one of the following courses relating to their private study. These include Music 30, 31, 33, 40, 50, 51, 62, 63, 65.

Note: 1 unit per semester (maximum 4 units).
Private study with accredited voice or instrumental teacher. Performance before faculty committee will take the place of an examination.
Lecture 1 hour, laboratory 5 hours.

40—INSTRUMENTAL TECHNIQUES (Wood Wind—Brass)

1 UNIT

Prerequisite: None.

Music 40 provides class instruction in the basic techniques of woodwind 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 woodwind 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.
MUSIC

42—PEP BAND  
1 UNIT
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)  
1 UNIT
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
2 UNITS
Prerequisite: None.

Note: Music 60 is not open to students having previous instruction or experience in piano playing. This course may be repeated for credit but not more than eight units in piano will be granted by Glendale College.
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
2 UNITS
Prerequisite: Music 60 or one-half year of piano.

Note: This course may be repeated for credit but not more than eight units in piano will be granted by Glendale College.
A course for the advancement of the beginning pianist in skills, interpretation and tonal coloring.

62—INTERMEDIATE PIANO
2 UNITS
Prerequisite: Music 61 or one year of experience.

Note: This course may be repeated for credit but not more than eight units in piano will be granted by Glendale College.
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
2 UNITS
Prerequisite: Music 62 or three years of experience.

Note: This course may be repeated for credit but not more than eight units in piano will be granted by Glendale College.
For the student with at least three years of piano study. Emphasis will be placed upon the development of each student through the study of all periods and styles of piano literature. Each student is expected to perform in recital during the semester.

65—ACCOMPANIST TRAINING
(SEE NOTE)
Prerequisite: Ability to sight read and play with ease piano literature of more than moderate difficulty.

Note: The student may take accompanist training for one or two units each semester. A proportionate amount of work will be required according to the number of units elected by the student and signed for at the time of registration.
A course designed to give training in the piano accompaniment of choral or instrumental groups, or solo performances.
MUSIC—NURSING—PALEONTOLOGY—PHILOSOPHY

66—ORGAN
2 UNITS
Prerequisite: Ability to play with ease keyboard literature of moderate difficulty.
Note: This course may be taken for two units each semester for a total of four semesters (8 units).
Intended for the beginner as well as the experienced organ student, the course is designed to acquaint the student with fundamentals of organ technique and repertoire. Materials assigned for study emphasize individual development in preparing for church and concert performance. The course includes field trips to visit various pipe organs in the metropolitan area.
Lecture 1 hour, laboratory 3 hours.

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 biological 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 “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
An overview of 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
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.

3 UNITS

13—COMPARATIVE WORLD RELIGIONS: NEAR EAST
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
A comparative study of the salient ideas and philosophical developments in Zoroastrianism, Judaism, Christianity, Islam, and the primitive and national religions of the past.
Lecture 3 hours.

3 UNITS

14—COMPARATIVE WORLD RELIGIONS: FAR EAST
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
A comparative study of the salient ideas and philosophical developments in Hinduism, Buddhism, other Indian religions, Taoism, Confucianism, and Shinto.
Lecture 3 hours.

3 UNITS

16—ETHICS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
An analysis of the concept of the good, the scope of morality, the deterministic controversy, the standards of evaluation, and the major ethical systems. Attention is given to contemporary positivism, John Dewey, Marxist ethics, authority as an ethical principle, intuitionism, egoistic hedonism, utilitarianism, ethical idealism, Immanuel Kant, modern Aristotelianism, and existentialism.
Lecture 3 hours.

3 UNITS

17—INTRODUCTION TO LOGIC
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
A study of the structure and functions of language, inductive and deductive forms of reasoning and argumentation. Includes the study of formal argumentation and its application to ordinary language, symbolic forms of reasoning, and propositional functions. Analyzes analogical argumentation, the methods of experimental inquiry, the nature of scientific hypothesis, and probability theory.
Lecture 3 hours.

3 UNITS

19—HISTORY OF PHILOSOPHY: ANCIENT PERIOD
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination, or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
A critical study of the philosophic systems and ideas of the Western civilization from the ancient Greeks to the end of the Medieval period, with special emphasis on the Pre-Socratics, Plato, Aristotle, Roman philosophical thinkers, and the impact of Christian thought on Western culture.
Lecture 3 hours.

3 UNITS
PHILOSOPHY-PHOTOGRAPHY

20—HISTORY OF PHILOSOPHY: MODERN PERIOD 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-
registration Examination, or a "B" average in United States History and Government
courses in high school or 12 units of college courses with a "C" average.
A critical study of the philosophic systems and ideas of the modern period
which have had a dominant impact on Western civilization, with special
emphasis on Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant,
Hegel, Marx, Nietzsche, Twentieth Century British and American philoso-
phers.
Lecture 3 hours.

PHOTOGRAPHY

1—ELEMENTS OF PHOTOGRAPHY 2 UNITS
Prerequisite: None.
A two-hour lecture course. Survey of still cameras; characteristics of lens
and shutters; study of negatives, paper, and chemicals. Photographic
nomenclature. Photography 2 or Photography 3 should be taken concurre-
rently.

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 of 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 lab-
oratory 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.

5—ADVANCED PHOTOGRAPHY* (SEE NOTE)
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 lab-
oratory 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

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
*The College reserves the right to retain student work for one year for
exhibit purposes.
PHOTOGRAPHY-PHYSICS

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.

8—PHOTOJOURNALISM

2 UNITS

Prerequisite: Previous course in photography at college or high school or experience in the field.

Note: Course may be repeated once for total of 4 units.

A study of the relationship between journalism and photography. Assignments are given for reproduction in Glendale College and community publications.

Lecture 1 hour, laboratory 3 hours.

PHYSICS

4A—ENGINEERING PHYSICS

5 UNITS

Prerequisite: Physics 11 or physics taken in high school and Mathematics 3A. (Mathematics 3B must be taken concurrently.)

Note: Physics 4A is restricted to Engineering and Science majors.

Mechanics and properties of matter. An intensive study of motion, dynamics and statics, oscillations, wave motion, and sound, with emphasis upon vector analytical methods.

Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.

4B—ENGINEERING PHYSICS

4 UNITS

Prerequisite: Physics 4A and Mathematics 3B. (Mathematics 4A must be taken concurrently.)

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 3B. (Mathematics 4A must be taken concurrently.)

Heat, thermodynamics, optics, and modern physics. An intensive study of the concept of fluids, temperature, heat, calorimetry, heat transfer, thermodynamics, entropy, and kinetic theory. A thorough presentation of geometrical and physical optics with considerable emphasis on modern physics including quantum physics, wave mechanics, and special relativity.

Lecture 4 hours, laboratory 2 hours, problem and quiz session 1 hour.

5—GENERAL PHYSICS

4 UNITS

Prerequisite: Physics or chemistry (any one of: Physics 10 or Physics 11, one year of physics in high school, Chemistry 41 or Chemistry 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.
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, Physics 5, or Physics 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 3A should be taken concurrently. Engineering 41 recommended.
Note: This course may not be taken for credit by students who have completed Physics 4A, Physics 5 or Physics 10.
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.

45—APPLIED TECHNICAL PHYSICS 3 UNITS
Prerequisite: A satisfactory score on the Mathematics Proficiency Examination or Mathematics 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.

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

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.

4—CRIMINAL LAW II

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.

6—LAW ENFORCEMENT IN URBAN AMERICA

Prerequisite: None.

Intended for the general public, this course is not recommended for police officers. An historical overview of the evolution of justice and law enforcement as a means of achieving social harmony. An analysis of the different police systems that have resulted in the development of today's police organization. An examination of the present police system, its organization, functions, and problems. The nature of crime and social disorder and prospects for the future in American Law Enforcement. In-depth analysis of the relationships and responsibilities between a police agency and the public it serves. Lecture 3 hours.

8—POLICE PATROL PROCEDURES

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

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

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

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.
POLICE SCIENCE

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  3 UNITS
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  3 UNITS
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  2 UNITS
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  1 UNIT
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.

29—NARCOTICS AND DRUGS  3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.
Designed to give all levels of law enforcement officers a fundamental understanding of narcotic addiction and the effects of hypnotic drugs as these factors are involved in the daily routine of police work. The principles of detecting and investigating narcotic offenders.
Lecture 3 hours.
30—POLICE ADMINISTRATION 3 UNITS
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 organizations, 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 3 UNITS
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 3 UNITS
Prerequisite: Police Science 1 or employment as a peace officer.

POLITICAL SCIENCE

1—INTRODUCTION TO GOVERNMENT 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
Note: Political Science 1 allows only one unit of credit for students who have completed Political Science 5 or Social Science 32. Recommended for students seeking an A.B. (4-year) degree.
An introduction to the principles and problems of government in the United States with emphasis placed on the Federal government and the interplay of democratic politics at the national level. Political Science 1 meets the California State requirement in the United States Constitution.

2—MODERN COMPARATIVE GOVERNMENTS 3 UNITS
Prerequisite: Political Science 1 or Political Science 5, or Social Science 31-32 and a satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a “B” average in United States History and Government courses in high school or 12 units of college courses with a “C” average.
A comparative study of the constitutional principles, governmental institutions, political parties, and recent history of policy and action of selected foreign governments.

5—AMERICAN POLITICAL IDEALS 2 UNITS
Prerequisite: None.
Note: It is recommended that the California State requirement in American History be completed prior to enrollment in this course. Political Science 5 allows no credit for students who have completed Political Science 1 or Social Science 32. Recommended for students seeking an Associate in Arts (2-year) degree.
POLITICAL SCIENCE-PRINTING

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.

6—AMERICAN STATE AND LOCAL GOVERNMENT 1 UNIT
Prerequisite: None.
Note: It is recommended that this course be taken after the completion of the Constitution requirement. This course 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.

10—CONTEMPORARY WORLD PROBLEMS 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
Current problems of too many people, too little food, and too little space. Accent is on the political and sociological solutions to the problems posed by excess fertility and declining food per capita in select areas of the world.

INTRODUCTION TO SOCIAL SCIENCE
See Social Science 31-32.

PRINTING

1—SURVEY OF GRAPHIC ARTS FUNDAMENTALS 2 UNITS
Prerequisite: None.
A survey course in letterpress and offset lithographic processes for persons with no prior printing experience. Provision is made for students to explore the broad scope and to discover the opportunities for graphic communications in our society. Course content includes basic principles and techniques of shop practices through a series of lecture-laboratory experiences.
Lecture 1 hour, laboratory 2 hours.

2—LETTERPRESS PRESSWORK PROCEDURES 2 UNITS
Prerequisite: Printing 1 or one year of printing in high school, or one year in the printing trade.
Instruction covers basic press operations, imposition, make-ready, correct use of inks, and paper handling. Practical job experience is attained by running forms made of type, half-tones, engravings, and forms requiring special preparation such as perforating rule forms, die-cutting, scoring, and numbering. Lubrication, press nomenclature, and maintenance are also emphasized.

3—OFFSET PRINTING PROCESSES 2 UNITS
Prerequisite: Printing 1 or one year of printing in high school or one year in the printing trade.
Covers history, job planning, type composition, copy preparation, line and halftone photography, color reproduction, darkroom procedures, layout and stripping, platemaking, offset inks, papers and bindery work, presswork, legal restrictions, drawing instruments. Lubrication, press nomenclature, and maintenance are also emphasized.
Lecture 1 hour, laboratory 2 hours.
PSYCHOLOGY

1—GENERAL PSYCHOLOGY  3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-
registration Examination or a "B" average in United States History and Government
courses in high school or 12 units of college courses with a "C" average.
Note: Sophomore standing preferred.
An intensive study of human behavior; emotions, learning, memory, motivation
and thinking; the individual differences in ability, intelligence, personality, maturation, and development; personal applications.

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  (SEE NOTE)
Prerequisite: None.
Note: This course may be taken for one to three units of credit.
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 opportu-
nity is provided for the consideration of individual study problems and for
practicing suggested procedures.

51—PSYCHOLOGY OF ADJUSTMENT  3 UNITS
Prerequisite: Counselor recommendation.
A course designed to increase the student's personal and social maturity;
principles of psychology related to better self-understanding and self-actual-
ization. Development of effective study skills through systematic methods of
study, increased motivation and self-discipline.
Lecture 3 hours.

PRE-SCHOOL CHILD
See Home Arts 35.
REAL ESTATE

Courses are offered in the field of Real Estate to provide professional education for those who have chosen real estate as a career, and to assist persons now engaged in real estate services to develop a higher quality of professional service.

1—REAL ESTATE PRINCIPLES 3 UNITS
Prerequisite: None.
The fundamental real estate course covering the basic laws and principles of California real estate, gives understanding, background, and terminology necessary for advanced study in specialized courses. Will be of assistance to those preparing for the real estate salesman license examinations.

3—REAL ESTATE ECONOMICS 3 UNITS
Prerequisite: Real Estate 5 or Real Estate 7 or license.
Deals with those trends and factors which affect the value of real estate; the nature and classification of land economics; the development of property, construction and subdivision, economic values and real estate evaluation; real estate cycles and business fluctuations, residential market trends, real property and special purpose property trends.

5—REAL ESTATE PRACTICE 3 UNITS
Prerequisite: Real Estate 1 or equivalent or license.
Day-to-day operations in real estate roles and brokerage, including lighting, prospecting, advertising, financing, sales techniques, escrow and ethics. Applies toward State's educational requirements for the broker's examination.

7—LEGAL ASPECTS OF REAL ESTATE 3 UNITS
Prerequisite: Real Estate 1 or Real Estate 5 or license.
A study of California real estate law, including rights incident to property ownerships and management, agency, contracts, and application to real estate transfer, conveyancing, probate proceedings, trust deeds, and foreclosure, as well as recent legislation governing real estate transactions. Applies toward educational requirement of broker's examination.

9—REAL ESTATE FINANCE 3 UNITS
Prerequisite: Real Estate 7 or Real Estate 5 or license.
Analysis of Real Estate Financing, including lending policies and problems in financing transactions in residential, apartment, commercial, and special purpose properties. Methods of financing properties emphasized.

11—REAL ESTATE APPRAISAL I 3 UNITS
Prerequisite: Real Estate 5 or Real Estate 7 or license.
An introductory course covering the purposes of appraisals, the appraisal process, and the different approaches, methods, and techniques used to determine the value of various types of property. Emphasis is on residential and single-units property.

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.
Lecture 4 hours, laboratory 2 hours.

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SOCIAL SCIENCE

31—INTRODUCTION TO SOCIAL SCIENCE 4 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
Note: Social Science 31-32 allows only six units of credit for students who have completed Political Science 1 or Political Science 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. A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of College courses with a "C" average.
Note: Social Science 31-32 allows only six units of credit for students who have completed Political Science 1 or Political Science 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 2 UNITS
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 3 UNITS
Prerequisite: A satisfactory score on the Reading and Language sub-tests of the Pre-registration Examination or a "B" average in United States History and Government courses in high school or 12 units of college courses with a "C" average.
An introduction to sociology, its methods and resources, the study of society and culture, personality organization and disorganization, social interaction and social processes, human groups and collective behavior, role and status, class and stratification, ethnic and other intergroup relations, ecology and urban sociology, population and social change.
Lecture 3 hours.
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 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 21A. 
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. 
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  
Prerequisite: Spanish 2, or three years of Spanish in high school completed 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  
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  
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 21A. 
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
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
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
Prerequisite: Speech 21.
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.

SUPERVISION

An Extended Day training program especially for foremen, supervisors, leadmen, and other group leaders in business and industry. The purpose of the program is to supplement job experience with the best in supervisory training. For information about classes offered each semester consult the Extended Day Schedule of Classes.

1—INTRODUCTION TO SUPERVISION
Prerequisite: None. It is recommended that the student complete one year of occupational training or equivalent service, industrial, or business experience before taking this course.
A basic, introductory course covering in general terms the management system organization as it affects the supervisor; direction of subordinates through leadership; appreciation for fiscal and property accounting; procedures for hiring, training, evaluation, grievances, and dismissal; effective communication; vertical and lateral forces affecting the supervisor; wage and salary administration; and collective bargaining.

2—HUMAN RELATIONS FOR SUPERVISORS—BASIC
Prerequisite: Supervision 1.
Covers relationship of supervisor to various goals; history of human relations and revisionist movements; basis for motivation; work incentives; personnel selection, training, appraisal, and development; group organization; communications; human engineering; effective leadership; and the selection and training of considerate leaders.

3—HUMAN RELATIONS FOR SUPERVISORS—ADVANCED
Prerequisite: Supervision 2.
Covers development of human relations climate; patterns, function, and types of leadership; simulation training; organization levels; staff relationships; organizational and group dynamics; informal organizations; working with unions; managing change; wage administration and incentives; procedures and work systems; attitudes; and development of participations.
4—SUPERVISOR'S RESPONSIBILITY FOR MANAGEMENT OF PERSONNEL

Prerequisite: Supervision 1.
Personnel techniques for which the supervisor is partially responsible and for which he should have some training. Selection, testing, placement, orientation, training, counseling, merit rating, promotion, transfer, and training for responsibility.

5—ORGANIZATION AND MANAGEMENT FOR SUPERVISORS

Prerequisite: Supervision 1.
Covers successful planning; staffing; organization objectives, and flexibility; functions of directing, control, coordinating, and training; service departments; job descriptions; preventing grievances; and maintaining production through work simplification.

6—LABOR-MANAGEMENT RELATIONS

Prerequisite: Supervision 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

Prerequisite: Supervision 1.
Significant economic facts. Development of a critical attitude toward industrial economics. Institutions and practices that determine our social environment. Management-supervisory employee relationships to economy and local industry.

8—WORK SIMPLIFICATION

Prerequisite: Supervision 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: Supervision 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: Supervision 1.

11—ORAL COMMUNICATION FOR SUPERVISORS

Prerequisite: Supervision 1.
Covers planning interpersonal communication, speaking techniques, conducting question-and-answer periods, conference leading on the job, objectives of good presentations, use and misuse of visuals in oral presentations, interviewing, bridges and barriers to communications, and what to do about rumors.
12—WRITTEN COMMUNICATION FOR SUPERVISORS  3 UNITS

Prerequisite: Supervision 1.
Covers principles of business communication, techniques for business letters, types of business letters, informal and formal reporting, interpreting written directions, the report and memorandum, and building a vocabulary.

13—SAFETY TRAINING AND FIRE PREVENTION  2 UNITS

Prerequisite: Supervision 1.
Lecture 2 hours.

14—DEVELOPING EMPLOYEES THROUGH TRAINING  2 UNITS

Prerequisite: Supervision 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.

15—MANAGEMENT CONTROL AND THE SUPERVISOR  2 UNITS

Prerequisite: Supervision 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.
Lecture 2 hours.

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.

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. The course covers the strength and testing of materials by the destructive and non-destructive methods and the physical properties of materials.

INDUSTRIAL ENGLISH
See English 31-32.
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.

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.

69—TECHNICAL DESIGN ILLUSTRATION

Prerequisite: Technical Illustration 68.

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.
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 (SEE NOTE)
Prerequisite: Home Arts 17 and/or Home Arts 11. (Home Arts 17 may be taken concurrently.)
Note: Students may earn a maximum of two units in one semester for a maximum total of eight 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.
THEATER ARTS—VOCATIONAL NURSING

31—TECHNICAL STAGE

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.

VOCATIONAL 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 on 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 (IA)  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 hell-arc welding and the studies of atomic-arc welding and other new techniques of fabrication. Principles of pattern development are discussed and developed. Emphasis is also placed in techniques needed for certification of welders.
Lecture 1 hour, laboratory 5 hours.

WORK EXPERIENCE

1—GENERAL WORK EXPERIENCE EDUCATION  (SEE NOTE)
Prerequisite: Enrollment in a planned program and employment for a minimum of five (5) hours per week. The job need not be related to the occupational goal of the student.
Note: Units are based on the number of hours worked per week. (a) 5-9 hours = 1 unit; (b) 10-14 hours = 2 units; (c) 15 or more hours = 3 units.
WORK EXPERIENCE

The course may be repeated for a total of six (6) units. Work Experience 2 cannot be taken concurrently.

To supervise part time employment of students with the intent of assisting them to acquire desirable work habits and attitudes in real jobs.

2—VOCATIONAL WORK EXPERIENCE EDUCATION (SEE NOTE)

Prerequisite: Employment for a minimum of five hours per week and concurrent enrollment in a college program which relates to the skills used on the job. The job-course combination must be approved by the Work Experience teacher or coordinator.

Note: Units are based on the number of hours worked per week. (a) 5-9 hours = 1 unit; (b) 10-14 hours = 2 units; (c) 15-19 hours = 3 units; (d) 20 or more hours = 4 units.

The course may be repeated for a total of sixteen units, the maximum amount for all Work Experience. Work Experience 1 cannot be taken concurrently.

This course affords the student an extension of vocational learning opportunities through part-time employment in the occupation for which his curriculum in college is preparing him.
GENERAL EDUCATION REQUIREMENTS FOR
GRADUATION FROM COLLEGES AND UNIVERSITIES

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 maintaining 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 University 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. If applicants have completed less than 12 units of transferable college credit since high school graduation, they must also satisfy the examination requirement for freshman applicants. 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 transferable courses.

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.

Examination Requirement: All freshman applicants must submit acceptable scores from the College Entrance Examination Board Tests listed below.**

The scores must be from tests taken in the last half of the junior year; the University does not accept scores from tests taken before then. If applying for admission to the fall quarter, tests should be taken no later than January of the senior year. The following tests are required:

1. Scholastic Aptitude Test (The Verbal and Mathematics scores submitted from this test must be from the same sitting.)

2. Three Achievement Tests, which include (a) English Composition, (b) Social Studies or Foreign Language, and (c) Mathematics or Science.

If student is a California applicant and his scholarship average in the required high school subjects is 3.0 to 3.09 inclusive, he must earn a total score of 2500 or higher in these tests. The scores of all applicants will be used to assist the University in counseling, guidance, and placement, and when possible, to satisfy the Subject A requirement.

(a) History (U.S. History or U.S. History and Civics) .................. 1 unit
(b) English ........................................... 3 units
(c) Mathematics (college preparatory courses in subjects such as algebra, geometry, trigonometry, calculus, elementary functions, matrix algebra or courses combining these topics) ........................................... 2 units
(d) Science (a third or fourth year course with laboratory) ........ 1 unit
(e) Foreign Language (in one language) ............................... 2 units
(f) Additional ........................................... 1 unit

Chemistry or Physics [If not used for (d)] or Advanced Mathematics or Foreign Language. [If in a language other than that offered under (e)] 2 units will be required.

Complete details on admission to the University will be found in the University of California UNDERGRADUATE ADMISSIONS CIRCULAR.

*The grade-point average is determined by dividing the total number of acceptable units attempted into the number of grade points earned on those units. Courses completed with a grade lower than "C" may be repeated, 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.

**This requirement also applies to certain advanced standing applicants.
UNIVERSITY OF CALIFORNIA, BERKELEY
COLLEGE OF LETTERS AND SCIENCE

The Reading and Composition Breadth Requirement and the Foreign Language Breadth Requirement should be completed without delay. Courses required for completion of the other breadth requirements should be spread over the four years of the college program. However, students should make substantial progress each semester toward satisfying the breadth requirements.

Except for performing arts, a course must have a value of at least three semester units. A sequence of two two-unit courses will be accepted as one course. Sequences such as Chemistry 1-2, which have a value of eight or ten semester units, will complete three courses for the requirements.

Performing arts: A course must have a value of at least two semester units. A sequence of two one-unit courses will be accepted as one course.

da. General University Requirements:
   English Subject A—Students completing English 1 in Glendale College with grade of "C" or better satisfy this requirement.

b. Reading Composition
   Completion of two courses.
   English 1, 2

c. Foreign Language
   Completion of the third course.

d. Natural Sciences
   Completion of four courses, including at least one course from Group A and at least one course from Group B.
   Group A:
   Chemistry 1, 10
   Physics 4A, 5, 10, 11
   Group B:
   Biology 1A
   Group C:
   Additional Physical and Biological Science
   Astronomy 1
   Biology 1B, 12, 20, 21
   Chemistry 2, 3, 5
   Geography 1
   Geology 1, 2
   Mathematics 3A, 3B, 4A
   Mineralogy 1
   Paleontology 1
   Physics 4B, 4C, 6

e. Social Science
   Completion of four courses, including not more than two courses in history.
   Anthropology 2
   Economics 1, 2, 11 (history limit)
   Geography 2, 5
   History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
   Political Science 1, 2, 10
   Psychology 1, 2
   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 not more than one course in performing arts. *Two units complete one course for the requirement.
   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, 25
Music 10, 11, 12, 13, 14, 20, 25, 26
Performing Arts: Music 30, 31A, 31B, 32, 33, 44, 45, 51, 52

Group B:
English 5, 6, 19, 20; 22-23 (The sequence completes one course for the requirement.)
Performing Arts: Theater Arts 3, 4

Group C:
Geography 2
History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
Philosophy 1, 2, 13, 14, 16, 17, 20

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. 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, 1B, 1C, 2, 2B, 3A, 3B, 4, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18
   English 2, 5, 6, 19, 20, 22, 23, 24, 25, 26
   French 4
   German 4
   History 1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 17, 18, 19, 20
   Music 10, 11, 12, 13, 14, 20, 25, 26, 30, 31A-31B, 32, 33, 41, 51
   Philosophy 1, 2, 13, 14, 16, 17
   Spanish 4
   Speech 3, 4
   Theater Arts 3, 4

2. Social Science
   Anthropology 2
   Economics 1, 2, 11
   Geography 2, 5
   Political Science 1, 2, 5, 6, 10
   Psychology 1, 2
   Social Science 31, 32
   Sociology 1, 2

3. Natural Science
   Astronomy 1
   Biology 1A, 1B, 12, 20, 21, 22
   Chemistry 1, 2, 3, 5, 6, 10
   Geography 1
   Geology 1, 1L, 2, 2L
   Mathematics 3A, 3B, 4A
   Mineralogy 1
   Paleontology 1
   Physics 4A, 4B, 4C, 5, 6, 10, 11
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 one of five schools: 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 satisfactory score on the CEEB Achievement Test in English, the Advanced Placement Examination in English, or the College-Level General Examination in English Composition.

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).

General Requirements. Three 3-unit courses in each of two schools other than the school of concentration, and six 3-unit courses in a third school other than the school of concentration. (Note that this is a graduation requirement, and need not be completed before transfer.)

School and Departmental Requirements.

School of Biological Sciences.
Physics 5-6, or Physics 4A-4B-4C, Mathematics 3A-3B-4A-4B
Chemistry 1-2-3, 5-6.

School of Fine Arts.
Art Department: Art 1, 2, 3A-3B, 4
Dance Department: Theater Arts 3-4 (at least 4 units), Health and Physical Education 51A-51B.
Drama Department: Theater Arts 3-4 (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.

School 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: Two sequences from among:
History 1-2; 17-18; 19-20; 7-8-9; 3-4.
Philosophy Department: Philosophy 1, 16, 17.

School 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 3A, 3B, 4A and Physics 4A-4B.
Mathematics Department: Mathematics 3A-3B-4A-4B.
Physics Department: Physics 4A-4B-4C.

School of Social Sciences:
Mathematics 3A-3B-4A; specialized departmental courses.
Pre-Engineering Curriculum:
Required: Mathematics 3A-3B-4A-4B, 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 FINE ARTS

Requirement for the A.B. degree
Completion of the approved major 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
Systematic Musicology

MAJOR IN DANCE*

MAJOR IN THEATER ARTS
Theater
Motion Picture and Television
Secondary Teaching*

With the proper selection of courses, teaching credentials are available in the majors and specializations marked with an asterisk (*).

BREADTH REQUIREMENTS: COLLEGE OF FINE ARTS

a. American History and Institutions
b. English 1 (with grade of "C" or better) may not be taken pass/fail. Thirty-six units chosen from the following areas, including at least two courses in one foreign language, and at least eight units in each of two other areas. Any course applied on one of the four general requirements may not also be applied on another of these requirements. Exception: American History and Institutions may also apply on the Social Science requirement.

c. Four General Requirement Areas:

1. Foreign Language. At least two courses in one foreign language. Without reducing the total number of units required for the Bachelor’s Degree, high school foreign language—first two years together equal one college course, and the third year in the same language equals course two. No more than the equivalent of eight semester units of foreign language taken at the high school level will count toward the required 36 units.

2. Natural Science. Select any courses from Physical and Biological Sciences.

   Astronomy 1
   Biology 1A, 1B, 12, 20, 21, 22, 30, 37
   Chemistry 1, 2, 3, 5, 6, 10
   General Science 31
   Geography 1
   Geology 1-1L, 2-2L, 1, 2
   Mineralogy 1
   Paleontology 1
   Physics 5, 6, 10, 11

3. Social Science.

   Anthropology 2
   Economics 1, 2, 11
   Geography 1, 2, 5
   Political Science 1, 2, 5, 6, 10
   Psychology 1, 2, 31
   Sociology 1, 2
4. Humanities. Select any courses from Literature, Philosophy or
the Arts, outside the student's major department.

Art: courses 1-50
English 5, 6, 19, 20, 22, 23, 24, 25, 26
Music: all courses
Philosophy 1, 2, 13, 14, 16, 17, 19, 20
Theater Arts: all courses

Individual departments in the College may require additional courses in
any of the four areas as well as additional evidence of writing ability.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
COLLEGE OF LETTERS AND SCIENCE

BREADTH REQUIREMENTS*
For the purpose of these requirements, departmental and interdepartmental
majors are classified in the following divisions:

HUMANITIES
Ancient Near Eastern Civilizations
Arabic
Chinese
Classics
English
French
German
Greek
Hebrew
Indo-European Studies
Italian
Japanese
Latin
Linguistics
Music
Near Eastern Studies
Philosophy
Portuguese
Russian
Scandinavian Languages
Spanish
Speech

PHYSICAL SCIENCES
Astronomy
Chemistry
Earth Physics & Exploration
Geophysics
Geology
Mathematics
Mathematics-Computer Science
Mathematics-Systems Science
Meteorology
Physical Sciences-Mathematics
Physics

SOCIAL SCIENCES
Anthropology
Business-Economics (for
Business Teachers)
Economics
Geography
History
Latin American Studies
Political Science
Social Sciences for
Elementary Teachers
Sociology

LIFE SCIENCES
Bacteriology
Botany
Physical Education
Psychology
Psychology-Mathematics
Zoology

Each student will choose to satisfy the requirements according to either
Plan A or Plan B.

*To meet a breadth requirement a transfer student may offer a 3-unit
semester course which parallels a quarter course at UCLA. 1- and 2-unit
semester courses are not acceptable for application to these requirements.
English 1 and courses used to satisfy the Foreign Language requirement
may not be used again here.

Plan A
The student will ordinarily take three courses in each of the three divisions
outside the division of his own major. He may, however, elect to use inter-
disciplinary courses which are authorized by the Academic Senate Council
on Educational Development to replace up to three of the total nine courses
required. However, in no case shall the student take less than two courses
in each of the three divisions outside the division of his major.

For the purposes of this requirement, all courses offered in the College of
Fine Arts, except performance or craft courses, will be considered humanities courses.

Except for the individual courses specified below, courses in the student's major division may not be used to satisfy any of these requirements. In no case may courses in the student's major department or courses required for the major be used to satisfy these requirements. Courses in other divisions required in preparation for the major may be used to satisfy these requirements.

The divisional requirements may be satisfied as follows:

c. **Physical Sciences.** Any courses for which the student is eligible: Astronomy 1; Chemistry 1, 2, 10, 3, 5, 6; Geology 1, 1L, 2, 2L; Mathematics 3A, 3B, 4A, 4B; and Physics 4A, 4B, 4C, 11.

d. **Life Sciences.** Any courses for which the student is eligible: Biology 1A, 1B, 12, 20, 21, 22, 37; Psychology 1, 2; Anthropology 2; Geography 5; Geology 1, 1L, 2, 2L; and all courses in Physical Education.

e. **Social Sciences.** Any courses for which the student is eligible: Anthropology 2; Economics 1, 2, 11; Geography 1, 2; History 1, 2, 3, 4, 5, 10, 12, 17, 18, 19, 20; Journalism 1, 2, 3, 4; Political Science 1, 2; and Sociology 1, 2.

f. **Humanities.** Any courses for which the student is eligible: English 1, 2; French 1, 2, 3, 4; German 1, 2, 3, 4; Philosophy 1, 2, 13, 14; Spanish 1, 2, 3, 4; and Speech 3, 4.

Acceptable courses in the College of Fine Arts are these:

- Art 1-50; Dance; Music (all courses); Theater Arts (all courses).

**Plan B**

The student will take seven courses in any division outside the division of his own major, and either one course in each of the two remaining divisions or two courses in one of the remaining divisions.

For the purposes of this requirement, all courses offered in the College of Fine Arts, except performance or craft courses, will be considered humanities courses. For acceptable courses in the College of Fine Arts, see the list under H. in Plan A.

Courses required for the major or preparation for the major may not also be used to satisfy this requirement.

**UNIVERSITY OF CALIFORNIA, RIVERSIDE**

The Riverside campus of the University of California will have a new academic structure beginning July 1, 1970. The plan provides for discipline-oriented colleges of Humanities, Physical Sciences, and Social Sciences, in addition to the College of Biological and Agricultural Sciences. The latter was established in the summer of 1968. The College of Letters and Science will be discontinued.

A Division of Undergraduate Studies is expected to be operational shortly after the disciplinary Colleges.

As soon as the College requirements for each of the new colleges are drawn up and adopted, they will be published and distributed to all California Community Colleges. Students may refer to the 1970-1971 UCR catalog for these requirements, as well as a description of each of the four colleges on the campus.

**College of Biological and Agricultural Sciences**

**SUBJECT REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE**

*English 1-2: 6 units.* If this requirement is met by examination, 8 quarter units are added to the humanities and social sciences requirement.

*Foreign Language:* 16 quarter units. This requirement may be fulfilled: (a) in one language by completing course 4 or demonstrating equivalent proficiency, or (b) by completing 8 units or by demonstrating equivalent proficiency in each of two languages. (Students should note that biology majors in the Department of Life Sciences must complete course 4 in a
single foreign language.) Students who have completed four years or the equivalent of one foreign language in high school are considered to have met the college requirement. Students who choose option (b) may satisfy the requirement for one of the two languages by completing two years of that language in high school.

*Humanities and Social Sciences:* 32 quarter units, with no fewer than 8 quarter units in each. (The humanities requirement ordinarily is fulfilled by taking courses from the following list: Art 1, 2, 2B; English 5, 6, 19, 20, 22, 23; Music 25, 26; Philosophy 1, 2). The social science requirement ordinarily is fulfilled by taking the following courses: Anthropology 2; Economics 1, 2; Geography 1, 2; Political Science 1, 2; Psychology 1, 2; or Sociology 1, 2.

*Natural Sciences:* 16 quarter units. Students should consult the sections of the catalog dealing with specific departmental or subject matter programs for further information.

**SUBJECT REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE:** *English 1-2:* 6 units. If this requirement is met by examination, 8 quarter units are to be added to the Humanities and Social Sciences requirement.

*Humanities and Social Sciences:* 16 quarter units.

*Upper Division Courses.* In a field or fields related to the major: 16 quarter units. Students should consult the sections of the catalog dealing with specific departmental or subject matter program for further information.

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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
   Six units are enough if in a two-semester sequential course. Otherwise, at least 8 are required.
   One year in a national culture or history, foreign language literature, world or western civilization; applicable courses include:
   - English 5, 6, 19, 20
   - History 1, 2, 7, 8, 9, 19, 20
   - Philosophy 13, 14

b. Humanities and Fine Arts
   Six units are enough if in a two-semester sequential course. Otherwise, at least 8 are required.
   One year in most visual arts (NOT ceramics or photography), art appreciation, literature, drama, philosophy, or music.
   Applicable courses include:
   - Art 1, 1B, 1C, 2, 2B, 3A, 3B, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18
   - English 1, 2, 5, 6, 19, 20
   - Music 10, 11, 12, 13, 14, 20, 25, 26
   - Philosophy 1, 2, 13, 14, 16, 19, 20

c. Mathematics
   At least 8 units in college-level mathematics.
   Applicable courses include:
   - Mathematics 3A*, 3B*, 4A*, 4B*, 12, 14, 30, 38

d. Natural Science
   Eleven units in college-level science.
   Applicable courses include:
   - Astronomy 1
   - Biology 1A, 1B, 12, 20, 21, 22, 30, 37

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Chemistry 1°, 2°, 3°, 5°, 6°, 10
Geology 1, 1L, 2, 2L
Mineralogy 1
Paleontology 1
Physics 4A°, 4B°, 4C°, 5, 6, 10, 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.

*Recommended for majors in any science.

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 con-
tain work in all of these fields, and all students pursue essentially the same
sequence of courses. At the end of that time, the student will have been
exposed to the real essence of these areas of study, and will be able to make
a wise choice of his major; he will also be prepared to enter upon any major
offered by Revelle College.

Units

a. Humanities ........................................................................12
   1. English 1-2
   2. Six additional units from the following:
      English 5, 6, 19, 20, 22, 23, 25, 26
      History 7, 8, 9
      Philosophy 1, 2, 13, 14, 16, 19, 20

b. Physical Sciences ..............................................................10
   1. Chemistry 1-2
   2. Physics 5, 6 or 4A, 4B ................................................. 9
      (4A, 4B and if possible 4C recommended for
      science majors.)

c. Biology ...............................................................................8
   1. Biology 1A-1B

d. Mathematics ........................................................................6
   1. Mathematics 3A-3B-4A

e. Social Sciences .....................................................................6
   1. Six units from among:
      Anthropology 2
      Economics 1, 2, 11
      History 10, 17, 18
      Political Science 1, 2, 5, 6, 10
      Psychology 1, 2
      Social Science 31, 32
      Sociology 1, 2

f. Foreign Language ..............................................................4-16
   1. Through Language 4
      (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, 1C, 2, 2B, 3A, 3B, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16,
   17, 18
   Music 10, 11, 12, 13, 14, 20, 25, 26

h. Electives ............................................................................ 6

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UNIVERSITY OF CALIFORNIA, SANTA BARBARA
COLLEGE OF LETTERS AND SCIENCE — BACHELOR OF ARTS

Units

a. English 1-2 ......................................................................................................... 6

b. Foreign Language (Ancient or Modern) .......................................................... 12
   May be met by completion of Language 3 (third semester).

c. Humanities ...................................................................................................... 10
   1. Literature, English 5, 6, 19, 20, 22 23, 25
      (3 units required).
   2. Philosophy 1 or 2, 19-20 (3 units required).
   3. Fine Arts, History and Appreciation (2 courses required).
      Art 1, 1A, 1B, 1C, 2, 2B
      Music 20 or 25

d. History, Social Sciences and Psychology ...................................................... 12
   1. History: Any course* ................................................................................. 3
   2. Two courses in separate areas from the following ...................................... 6
      Anthropology 2
      Economics 1, 2, 11
      Political Science: Any course* except 6
      Psychology 1
      Sociology 1
   3. One course from ....................................................................................... 3
      Anthropology 2
      Economics 1, 2, 7, 11
      Geography 5
      History, any course
      Political Science, any course except 6
      Psychology 1, 2
      Social Science 31, 32
      Sociology 1, 2

e. Natural Science and Mathematics .................................................................. 11-12
   1. Biology 1A, 22 ............................................................................................ 4
   2. Chemistry 1, 10; Physics 4A, 5; Geology 1-1L, 2-2L ............................... 4-5
   3. One course from the following .................................................................... 3-4
      *Astronomy 1
      Biology 1A, 1B, 12, 20, 21, 22, 37
      Chemistry 1, 2, 3, 5, 6, 10
      Geology 1-1L, 2-2L
      Mathematics (any transfer course)
      Mineralogy 1
      Paleontology 1
      Physics 4A, 4B, 4C, 5, 6, 10
      Geography 1

f. Electives .......................................................................................................... 11-16
   1. Four courses outside the major from areas listed above which may include
      Speech 3 and Philosophy 13 or 14 but not physical activities.
   2. Three courses outside the major from areas listed above which may include
      Speech 3 and Philosophy 13 or 14 and 2 units of physical activities courses.

*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 examination.
The colleges at Santa Cruz are designed to strengthen undergraduate education by making natural the communication—between student and teacher, between students, and between fields—that is essential to the process and enjoyment of learning in a university. Cowell College opened in 1965, Stevenson College in 1966, Crown College in 1967, Merrill College in 1968 and College V in 1969. Although every college is devoted to the liberal arts, no attempt is made to guarantee in each a perfect academic balance. Each develops its own intellectual center of gravity. This intent reflects a conviction not that the world of intellect can be readily divided, but that precisely because it cannot, one can honor, without sacrifice of liberal education, a faculty's instincts to approach it from a variety of directions.

The first three colleges sought to establish, for subsequent development at Santa Cruz, a solid footing in the major areas: the humanities, the social sciences, and the natural sciences. The fourth focuses on problems of poverty at home and underdevelopment abroad. The fifth college addresses the arts, the fine arts and the popular arts in the twentieth century, with special attention to both creativity and the identification of talent. The course of study a student pursues, however, will in no way be restricted by the emphases his college may develop. Where such emphases evolve, it will be in the context of a liberal arts college.

The colleges are coeducational and residential. Roughly 65 per cent of the undergraduates at Santa Cruz live in a college. For others who commute from home or quarters in town, the colleges undertake to provide special facilities.

Some college faculty live within the college; most have their offices there. Graduate students may be affiliated with a college. Teaching is carried on primarily in seminar and lecture rooms provided in the colleges. However, teaching that requires highly specialized kinds of space is housed in central facilities serving all the colleges. Science laboratories, accordingly, are centralized.

Each college library is operated informally by the college's faculty and students. Its collections supplement the resources of the main University Library.

Leadership of each college is vested in a Provost, assisted by one or more Senior Preceptors and by the other Fellows of the college. Together, they are responsible for shaping the program and life of the college.

The following pages contain statements prepared by the Provosts of the five colleges that will be in operation during the 1970-71 academic year. They should be read in the light of three facts concerning college membership:

—Major programs are governed by campuswide guidelines; that is to say, a student majoring in history will do so within the same framework whether he is a member of Cowell College or of Crown College.

—Although the first five colleges have different orientations they all have Fellows drawn from all fields. It is not the intention of the academic plan to have all students majoring in the humanities become members of Cowell, or all social science majors members of Stevenson, and so forth. On the contrary, it is intended that all colleges should have students from all disciplines.

—Finally, in membership in a college there are other factors involved in addition to the academic program. These factors are impossible to describe in the pages of a catalog; they include such things as the "personality" of the faculty and of the college community as a whole, modes of government, and the college's architecture. Information and impressions concerning these matters can best be found in conversation with students who are already here, or by visiting the campus—especially while classes are in session.

Foreign Language and Culture. Ability to read, speak, and write one foreign language at a level of competence equivalent to that achieved in course 4 at Santa Cruz or competence in two foreign languages at a level equivalent to that achieved in course 3 for one language and course 2 for the other. Instead of completing the designated courses, a student may satisfy the requirement by passing the appropriate placement or proficiency examination. A coherent composite language and cultural program may be substituted upon approval of a student's adviser.
Humanities. Three courses (five quarter units each) or the equivalent.
Natural Sciences. Three courses (five quarter units each) or the equivalent, offered by the Boards of Studies in Astronomy, Biology, Chemistry, Earth Sciences, Mathematics, or Physics, or by the Division of Natural Sciences, except that not more than one of these may be in mathematics.
Social Sciences. Three courses (five quarter units each) or the equivalent. Administration of these requirements will be governed by the following policies:

- Those who wish to continue with a foreign language studied in high school will be given a placement examination on entrance to determine what courses, if any, should be taken to satisfy the requirement.

- Each year certain courses offered by the disciplines within other Academic Divisions and by the Colleges may be classified as natural science courses by the Committee on Undergraduate Courses, subject to the advice of the Vice-Chancellor-Sciences. No more than one such course may be used in satisfaction of this requirement.

**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, 13, 14, 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 3A, 3B, 4A, 4B

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

Transfers are admitted each term—fall, winter, spring. Students who are admissible directly from high school must complete a minimum of 30 academic units with better than a "C" cumulative grade point average. Many courses are acceptable for transfer credit, but the following pattern must be satisfied for bachelor's degree from Loyola.

Units

a. English ........................................................................................................ 3
   English 1
b. Literature .................................................................................................... 3
   English 2, 5, 6, 19, 20
c. American Institutions ................................................................................ 6
   Courses necessary to meet United States History, Constitution and California State and Local Government.
d. History of Western Civilizations ................................................................. 6
   History 1, 2 or 7, 8, 9
e. Social Science ............................................................................................ 9
   Three courses must be outside the major field.
   Anthropology 2
   Economics 1, 2
   Geography 2
   Political Science 2
   Psychology 1
   Sociology 1, 2
f. Natural Science .......................................................................................... 8
   A combination of one college-level science course and college level mathematics may be used to fill this requirement.
   Astronomy 1
   Biology 1A, 1B, 12, 20, 21, 22, 37
   Chemistry 1, 2, 3, 5, 10
   Geology 1, 1L
   Paleontology 1
   Physics 4A, 5, 10, 11
   Mathematics 3A, 3B, 4A, 4B
   Science 31
g. Foreign Language ...................................................................................... 0-12
   This requirement may be fulfilled by successfully completing a third-semester level course of a foreign language or by passing the same level placement examination.
h. Public Speaking ........................................................................................ 3
   Speech 3

Note: For business majors, natural science and foreign language are not required, but the following are: Business 11, 23; Economics 1, 2, 7, 13, 14; and Mathematics 14.
For Engineering majors, only a, b, and c, above are required in addition to Chemistry 1, 2; Mathematics 3A, 3B, 3C, 3D; Physics 4A, 4B, 4C; plus two non-technical electives Economics 1 or Law 17 and Sociology 1 or Psychology 1.

MOUNT ST. MARY'S COLLEGE

Major Requirement: Consult Mount St. Mary's College Catalog for major requirements. Specific requirements for a particular major are designated by the Major Department.

a. American History and Institutions
   History 5 or 10; 17-18;
   Political Science 1 or 5
   Social Science 31-32
b. English: (2 courses)
   English 1, 2, 21A

c. History: (1 course)
   History 1 or 2

d. Philosophy: (2 courses)
   Philosophy 1-2, 17

e. Theology
   (Non-Catholics may substitute a course in General Ethics.)

f. Art Form Course: (1 course)
   Art 1 or 2
   Music 20, 25 or 26

g. Psychology
   Psychology 1

h. Social Science: (2 courses)
   Economics 1
   History 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
   Political Science 1, 5
   Social Science 31, 32
   Sociology 1
   Anthropology 2

i. Physical Science or Mathematics: (1 course)
   Science 31
   Mathematics 38, 50

j. Biological Science

k. Foreign Language
   Proficiency Examination

**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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. English</td>
<td>0</td>
</tr>
<tr>
<td>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 standard students are remanded to an English class. To establish this competence, a course in Freshman English is recommended by a counselor.</td>
<td></td>
</tr>
<tr>
<td>b. Foreign Language</td>
<td>12</td>
</tr>
<tr>
<td>c. Sciences: Science majors should refer to the Catalog for specific prerequisites. 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-relationships of sciences may be substituted. Biology 1A</td>
<td>3 or 5</td>
</tr>
<tr>
<td>Geology 1-1L or Chemistry 1 or 10</td>
<td>3 or 5</td>
</tr>
<tr>
<td>Physics 5 or 10 or 11</td>
<td>3</td>
</tr>
<tr>
<td>Science 31</td>
<td>4</td>
</tr>
<tr>
<td>d. Physical Education: Activity courses in each term of the freshman year:</td>
<td></td>
</tr>
<tr>
<td>e. History of Civilization: The two-year course in History of Civilization in the fresh-</td>
<td></td>
</tr>
</tbody>
</table>
man 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 Arts Degree in Human 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:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Oral and Written Expression ........................................ 6</td>
</tr>
<tr>
<td>English 1; English 2 or Speech 3.</td>
</tr>
<tr>
<td>b. Natural Sciences and Mathematics .................................. 12</td>
</tr>
<tr>
<td>1 and 2 required. At least one semester of a laboratory science is required.</td>
</tr>
<tr>
<td>1. One of the following:</td>
</tr>
<tr>
<td>Biology 1A, 20, 21</td>
</tr>
<tr>
<td>2. One of the following:</td>
</tr>
<tr>
<td>Any course in Chemistry or Physics</td>
</tr>
<tr>
<td>Geology 1-1L, 2-2L</td>
</tr>
<tr>
<td>Science 31</td>
</tr>
</tbody>
</table>

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3. Astronomy 1
   Biology 1B, 12, 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
      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, 36, 38, 40, 41.

PEPPERDINE COLLEGE

a. Communication ................................................................. 9

   Student must take work in each area.
   1. Written Expression:
      English 1-2
   2. Oral Expression:
      Speech 3

b. Foreign Language ............................................................. 10

   French, German, Spanish
   This requirement may be met by passing a first-year college
   examination in an approved foreign language. The examination
   will be administered by the Pepperdine College Language Depa-
   rtment. Students working toward a B.S. Degree are not
   asked to meet the foreign language requirement unless it is a
   specific department requirement.
c. Social Science ................................................. 15
    History 1-2 or 3-4 ........................................... 6 units
    History 17-18 or Social Science 31-32 .......... 6-8 units
    History 7-8, 7-9, 8-9 ..................................... 6 units
This requirement includes six units in United States History
and six units in world civilization or western civilization. The
remaining three units may be selected from Economics 1,
Political Science 1, Psychology 1, Sociology 1, or
Anthropology 2.

d. Physical and Biological Sciences ......................... 8-11
    Biology 1A-1B, 12, 21, 22, 37, 38.
    Chemistry 1-2, 10.
    Physics 5-6, 10, 11.
    Geology 1, 1L, 2, 2L.
    Science 31, Paleontology 1, Geography 1, Astronomy 1,
      Mineralogy 1.

e. Mathematics or Logic ....................................... 3
    Mathematics 1, 2
    Philosophy 17
    This requirement will be waived for students who have com-
    pleted at least three years of high school algebra, geometry,
    trigonometry or equivalent courses.

f. Art or Music .................................................. 3
    Art 1, 1B, 2, 2B
    Music 20, 25, 26

(g. World Literature or Philosophy ........................... 5
    English 19-20
    Philosophy 1, 2, 13, 14, 16

h. Physical Education ........................................... 4
    Any course.

Note: The number of units acceptable for transfer in Junior Standing is
60-70. Students who have not completed courses listed above may be
accepted with a view of completing the requirements at Pepperdine College.

STANFORD UNIVERSITY

University Requirements

a. Writing
   Two courses are required: English 1 and 2.

b. Humanities and Fine Arts
   Three courses are required. These are to be selected from beginning
courses in the subject areas.

c. Social Sciences
   Three courses are required. History courses are included. The
   beginning courses in Anthropology, Communications, Economics,
   Geography, Political Science, Psychology, Sociology, and many
   introductory History courses are included among the eligible ones.

d. Mathematics (3A-3B, 4A-4B), Natural Sciences (Biology 1A, 1B;
   Chemistry 1, 2, 10; Physics 4A, 4B, 4C, 5, 6) and Technology. Three
   courses are required.

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UNITED STATES INTERNATIONAL UNIVERSITY, SAN DIEGO
CALIFORNIA WESTERN CAMPUS
ELLIOTT CAMPUS

a. English
   English 1-2
b. Mathematics
   Select two courses:
   Mathematics 1, 2, 3A, 3B, 4A, 4B, 14
c. Foreign Language
   Proficiency or completion of:
   Three semesters of any one language
d. History and Social Science
   Select one course from three different fields:
   Economics 1, 2
   History 2, 9, 17 and 18
   Political Science 1, 5
   Psychology 1, 31
   Sociology 1, Anthropology 2
e. Humanities
   One course from each group:
   Group I
   Art 2, 3A, 4
   Music 20, 25, 26
   Group II
   English 5, 6, 22, 23
   Speech 3, 4
   Theater Arts 3 and 4
   Group III
   Philosophy 1, 13, 14, 16, 17
f. Natural Science
   Completion of a minimum of eight semester units of science with
   at least one laboratory science.

UNIVERSITY OF SOUTHERN CALIFORNIA
COLLEGE OF LETTERS, ARTS, AND 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 Uni-
versity, 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

a. General
   Units
   English 1 ......................................................... 3
   English 2 .......................................................... 3
   United States History and Institutions (Any pattern of courses
   which meets the requirement in United States History, United
   States Government, and California Government) (entire re-
   quirement) .......................................................... 3
   One Foreign Language* 1, 2, 3 ................................ 12

b. Humanities
   Arts. Choose from Art 1, 1B, 2, 2B; Music 20, 25, 26 .......... 3
   Literature. Choose from English 5, 6, 19, 20, 22, 23, 25 .... 3
   Philosophy-Religion. Choose from Philosophy 1, 2, 13, 14, 16 3
   Electives from above Humanities courses to make a total of at
   least 11 units .................................................... 2

* A student may enroll at any point in the sequence determined by place-
ment examination. A transfer student with college language may continue
from the last course completed. A student with four years of one language
in high school may take the placement test to determine whether this
requirement is met.
† See your counselor for Degree Requirements for Social Sciences, Human-
ities, and Natural Science Majors.

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c. Natural Sciences
    Choose from Astronomy 1; Biology 1A, 1B, 12, 20, 21, 22, 30
    or 37; Chemistry 1, 2, 10; Geology 1-1L, 2-2L; Paleontology
    1; Physics 4A, 4B, 4C, 5, 6, 10; Science 31. .......................... 8

d. Social Sciences
    Courses in History. Choose from History 1, 2, 7, 8, 9 .............. 3
    Courses in other Social Sciences. Choose from Anthropology 2;
    Economics 1, 2; Geography 2; Psychology 1, 2; Sociology 1, 2 3
    Electives from above Social Sciences courses to make a total of
    at least 7 units .......................................................... 1

e. Physical Education Activities
    (Including Fundamentals of Physical Efficiency, and Swim-
    ming) in four different semesters ....................................(4 semesters) 0

Students who transfer with 60 or more units are exempt from the physical education requirement.

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 on all subjects except physical education and military science 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 was 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 in all cases is 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.
General Education—Breadth Requirement courses which the President of Glendale College or his designated officer will certify as meeting the intent expressed in Administrative Code, Title V, section 40405. (Students will complete a minimum of forty (40) units from this list.)

1. Natural Science
   At least one course in physical science and one course in biological science must be selected.
   - Astronomy 1
   - Biology 1A, 1B, 12, 20, 21; 22, 37
   - Chemistry 1, 2, 3, 5, 6, 10
   - Geography 1, 2
   - Geology 1-1L, 2-2L
   - Paleontology 1
   - Physics 4A, 4B, 4C, 5, 6, 10, 11
   - Science 31

2. Social Science
   A minimum of two courses must be selected from Social Sciences in addition to Psychology 1.
   - Psychology 1 (Required)
   - Anthropology 2
   - Economics 1, 2, 11
   - Education 1
   - Geography 5
   - History 1, 2, 3, 4, 7, 8, 9, 10, 12, 17, 18, 19, 20
   - Political Science 1, 2, 6, 10
   - Psychology 2, 31
   - Social Sciences 31, 32
   - Sociology 1, 2

3. Humanities
   A minimum of two courses must be selected from Humanities.
   - Art 1, 1B, 1C, 2, 2B
   - English 5, 6, 19, 20
   - Music 11, 12, 13, 14, 20, 25, 26
   - Philosophy 1, 2, 13, 14, 16, 19, 20

4. Basic Subjects
   A minimum of two courses must be selected from Basic Subjects.
   - English 1 (Required)
   - Speech 3 (Required)
   - Health Education 1 and 10
   - English 2
   - Economics 7, 13, 14
   - Journalism 1, 2
   - Law 17
   - Mathematics 1, 2, 3A, 3B, 4A, 4B, 12, 14, 38
   - Philosophy 17
   (all foreign languages)
Faculty 1970-1971

ANDERSON, CLARA JO .................................. Associate Professor of Business
B.S., Indiana University
M.Ed., University of California at Los Angeles

ANDROFF, ABRAM A .................................. Associate Professor of Health and Physical Education
B.S., M.S., University of Southern California

ANSLYN, SAMUEL S .................................. Technical Illustration
Twenty-three years experience in graphic arts field.

*BAKER, MRS. JOANN N .................................. English
B.S., Woodbury College
B.A., Occidental College
M.A., Syracuse University

*BAKER, ROBERT S .................................. Music
A.B., San Jose State College
M.A., University of California at Los Angeles

*BAKER, WILLIAM PAUL .......................... Art History
B.F.A., M.F.A., University of Southern California

BANGS, OLIVE .................................. Instructor of English
A.B., Pasadena College
M.A., California State College at Los Angeles

BARNES, JOHN B .................................. English
B.A., Occidental College

*BEALE, BONNIE .................................. Shorthand
B.Ed., University of California at Los Angeles

BECK, HARRY L .................................. Dean, Admissions and Records
A.A., Glendale College
A.B., San Jose State College

*BECK, VINCENT L .................................. Mathematics
B.A., St. Mary's College
M.A., St. Louis University

BELKnap, ROBERT D .................................. Associate Professor of Music
A.B., San Jose State College
M.A., Columbia University

BELL, JAMES D .................................. Psychology
B.A., University of California at Los Angeles
M.A., California State College at Los Angeles

*BLACK, DONALD G .................................. Typing
B.A., California State College at Los Angeles

BOUEY, JAMES G .................................. Professor of Biology
A.B., University of California at Los Angeles

BOYLES, AUGUST C .................................. Aerospace Technologies

BRADY, ARTHUR .................................. Theater Arts
A.B., M.A., Occidental College

BRIGHOUSE, JEB .................................. Assistant Professor of Political Science
A.B., Occidental College
M.A., University of California at Los Angeles

*Part time

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BROOKS, KEIR ................................................................. Real Estate
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BROWN, ROBERT W. ......................................................... Professor of Art
   A.B., San Francisco State College
   M.F.A., California College of Arts and Crafts
   M.F.A., University of Southern California

BUNDICK, GEORGE E. ..................................................... Physics
   B.E., University of Southern California
   M.N.S., A.S.U.

CANTLEY, JOHN .............................................................. Art
   A.B., M.A., University of California at Berkeley

CEASE, DOREEN ............................................................ Music
   B.M., Texas University of Arts and Industries

CEASE, WESLEY ............................................................. Orchestra, Instrumental Music,
Music Theory and History/Appreciation
   A.B., San Francisco State College
   Diplom, University of Heidelberg
   Diplom, Badische Musikhochschule

CHAMPLIN, CHAD L. ......................................................... Printing
   B.S., California State Polytechnic College

CHIAE, THOMAS R. .......................................................... Psychology
   B.A., California State College at Los Angeles

CLARK, JOHN T. ............................................................. Carpentry
   B.A., California State College at Los Angeles

COCHRANE, HAROLD B. ................................................. Dean, Guidance and Counseling
   A.B., M.A., University of Southern California

COLEMAN, DONALD V. .................................................... Associate Professor of Biology
   B.S., George Pepperdine College
   M.A., California State College at Los Angeles

CONNETT, THEODORE R. .................................................. Professor of English
   A.B., University of California at Berkeley
   M.A., Columbia University

CONSTANCE, JOEL D. ...................................................... Business English
   B.S., University of California at Los Angeles
   M.A., California State College at Los Angeles

COTTON, JO RAY ............................................................. Assistant Professor of English
   A.B., Pacific Union College
   M.A., Ph.D., University of Southern California

CRANDALL, WILLIAM H. .................................................. History
   B.A., M.A., California State College at Los Angeles

CRAVEN, JOHN B. .......................................................... Assistant Professor of English
   A.B., La Sierra College
   M.A., University of Southern California

CRIPKEN, 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

Daly, MICHAEL J. .......................................................... Assistant Professor of English
   B.A., San Fernando Valley State College
   M.A., Ph.D., University of Southern California

*Part time
DAVIDSON, RUTH E. ........................................... Vocational Nursing
R.N., New York University, Bellevue School of Nursing
A.B., M.A., California State College at Los Angeles

DAVITT, JOHN A. ............................................. Administrative Dean,
B.S., M.A., University of San Francisco Student Personnel Services

DEGRASSI, LEONARD R. ............................... Associate Professor of Art
A.B., B.F.A., M.A., University of Southern California
Corso Perfezionamento Storia d'Arte, Università di Roma

DE HEUS, HILARY J. ........................................ Physical Education
D.P.E., University of Otago, New Zealand
Dip. Tech., Auckland Teachers College, New Zealand
M.A., University of Wisconsin

*DERKSEN, CARL ........................................... Descriptive Geometry
B.S., Kansas State University
M.I.E., California State College at Los Angeles

DIPIETRO, HARRIET LOUISE ........................ Speech, English, Radio Speech
A.B., M.A., University of Southern California

DONOVAN, BLANCHE K. ................................. Associate Professor of Health and Physical Education
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DOYLE, MARK A. .............................................. Associate Professor of Sociology
B.S., Villanova University
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EDDY, ELIZABETH J. ...................................... Business Education
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A.B., California State College at Los Angeles

FELLINGHAM, WARREN C. ............................ Mathematics
A.B., Occidental College

FISCHER, EGBERT D. ................................. Associate Professor of Physics
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M.A., University of Texas

FISHER, EVERETT G. ................................. Professor of Applied Science

FLINT, LOUIS H. ........................................... Professor
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Ed.D., Stanford University

FRIEDRICH-MEJIA, ERIKA .............................. Associate Professor of German
B.A., M.A., University of Arizona
Diplom, Sprachenschule der Landeshauptstadt München
Certiﬁcado de Estudios, Universidad De San Carlos de Guatemala

*GARDNER, ANN C. ........................................ Sociology
B.A., University of North Carolina at Greensboro
M.A., University of North Carolina at Chapel Hill

*GIELE, PAUL E. ............................................. Geography
A.B., University of California at Los Angeles

*GERTMENIAN, L. WAYNE ............................. Economics
B.A., University of Southern California
M.A., University of Idaho

GIBSON, CHARLES H. ...................................... Professor of History
A.B., University of California at Berkeley
M.A., University of Southern California

*Part time
GODDARD, FRANK L. ............................................Associate Professor
A.B., M.A., Occidental College

GOLDER, DONALD T. ............................................Counselor
B.E., Wisconsin State University
M.S.E., University of Southern California

GONZALES, JAMES E. ............................................Professor of Architecture
A.B., Adams State College, Colorado

GREEN, IDA ..................................................Accounting
B.S., New York University
M.A., University of Southern California
C.P.A., State of California

GRIFFIN, HOPE C. ............................................Secretarial, Business Machines
A.B., University of California at Berkeley
M.A., San Francisco State College

GROSS, LOUIS ................................................Associate Professor of Art
A.B., University of California at Berkeley
M.F.A., California College of Arts and Crafts

GRUSS, PAUL A. ...............................................Piano
B.Mus., College and Conservatory of Music, Cincinnati, Ohio
M.A., San Fernando Valley State College

GUILMETTE, COLLIN S. ....................................Associate Professor of History
A.B., M.S., University of Southern California

GULBRANDSON, A. VINTON ................................Supervisory Training
A.B., University of California at Los Angeles

HAASE, WALTER J. ...........................................Political Science
B.A., Occidental College
U.S.C. School of Law

HABERL, EUGENE .............................................Data Processing
B.S., Iowa State University

HADEN, HARLEY J. ...........................................Professor of Physics
A.B., Occidental College
M.A., University of Southern California

HALLBERG, VELORIS B. .....................................English
A.B., M.A., Stanford University

HAMPTON, JOHN A. ...........................................Police Science
L.L.B., Southwestern University
Cert. Police Administration, University of Southern California

HAND, JUDITH ................................................Biology
A.B., M.A., University of California at Santa Barbara

HARDISON, RICHARD C. .................................Professor of Psychology
A.B., M.A., Occidental College
Ed.D., University of Southern California

HARTMAN, CHARLES ........................................Technical Drafting
Registered Civil Engineer

HARVEY, SALLY J. ...........................................Assistant Professor of Spanish
A.B., University of California at Los Angeles
M.A., Inter-American School of Spanish, Mexico

HAWKINS, ROBERT N. .......................................Geography
B.A., California State College at Los Angeles
M.A., University of California at Los Angeles

*Part time
HERNDON, LEROY T. ......................... Associate Professor of Spanish
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HIGH, WALLACE S. ......................... Assistant Professor of Psychology
A.A., Modesto Junior College
A.B., University of California at Santa Barbara
M.A., San Jose State College

HILL, WILLIAM F. .......................... Mathematics
B.A., University of California at Los Angeles
M.A., California State College at Los Angeles

HOLMWOOD, MERYL W. ....................... Supervisory Training

HORTON, JR., ERNEST H. ..................... Professor of Philosophy
A.B., Los Angeles Pacific College
B.D., Ashbury Theological Seminary
Ph.D., University of Southern California

HORTON, FLORA M. ......................... Associate Professor of Business
A.B., University of Texas
M.A., California State College at Los Angeles

HOSTETTER, H. LYNN ......................... Descriptive Geometry
B.Ed., University of California at Los Angeles
Engineering Drawing

HUNT, GAIL S. ............................. Geology
B.S., M.S., University of Southern California

HURLEY, MRS. SANDRA T. ...................... English
B.A., Southern Oregon College
M.A., California State College at Long Beach

HURST, DAVID O. ........................... Chemistry
B.S., Wheaton College
M.S., University of Illinois

HURST, JOHN E. .................................. Police Science

JANICKI, CYRIL B. ......................... Associate Professor of Speech
A.B., Central Y.M.C.A. College, Chicago
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JOHNSON, CLYDE ............................ Assistant Professor of Art
A.B., Eastern Kentucky State College

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A.B., M.A., University of Southern California

JONES, W. MACK .......................... Electronics

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B.A., University of California at Berkeley
B.D., Fuller Theological Seminary
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KERN, DAVID E. ......................... Instructor of Applied Science
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KEWLEY, JOAN E. ........................ Reading Improvement
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KIM, RUTH .................................. Assistant Professor of History
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*Part time
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B.A., M.A., University of Southern Mississippi

KIRK, ELIZABETH D. ............................................................. Personal Development

KNECHT, MRS. JANE ................................................................Piano

LASCOOLA, RUSSELL A. ......................................................... Philosophy
B.A., California State College at Los Angeles
B.A., University of Southern California

LAYTON, GORDON L. ............................................................. Aerospace Technologies

LEEK, DAVID C. ................................................................. Administrative Dean-Continuing Education
A.B., Huron College
M.A., Willamette University

LEISS, ROSE P. ................................................................. Medical Terminology
B.S., M.A., California State College at Los Angeles

LENNER, NATHAN M. ........................................................... Salesmanship, Merchandising

LIEFNER, JEROME T. .................................................................Supervisory Training, Data Processing
B.E.E., University of Detroit

LILLIE, ELLA L. ................................................................. Mathematics
A.B., Western Michigan University
M.A., University of Michigan

LIND, RICHARD W. ................................................................. Philosophy
A.B., M.A., University of Southern California

LINEBAUGH, ALVEN E. ......................................................... Instructor of Applied Science

LIOTT, GASPAR J. ................................................................. Photography
B.A., University of California at Los Angeles
M.A., California State College at Los Angeles

LIVERMORE, HOMER E. ............................................................. Bookkeeping
B.A., University of Nebraska
M.Ed., University of California at Los Angeles

LIVINGOOD, EARL R. ............................................................ Associate Professor of History
A.A., Santa Monica City College
A.B., M.A., University of California at Los Angeles

LOY, HOWARD ................................................................. Psychology
B.A., M.A., George Pepperdine College

LYNCH, CHESTER B. ............................................................ Professor of Mathematics
A.B., M.A., Occidental College

MALINAWSKI, LOUIS E. ......................................................... Engineering Drawing
B.A., University of Minnesota
M.Ed., University of North Dakota

MANKER, VIRGINIA M. ......................................................... Assistant Professor of Health
B.S., University of Arizona
M.Ed., Oregon State University
and Physical Education

MARSH, WALTER E. .............................................................. Mathematics
B.A., Pasadena College

MARTIN, DONNA M. ............................................................. Flight Stewardess
A.C., Mesa Junior College, Grand Junction, Colorado

MASEE, LOUIS ...................................................................... Health and Physical Education
A.B., University of Redlands
M.Ed., Whittier College
Head Football Coach

*Part time
MAYO, PAUL E. ....................................................Assistant Professor of Music
B.Mus., University of Southern California

McCREARY, JACK E. ...........................................Associate Professor of Psychology
A.B., M.A., University of Southern California

McCUEN, JOHN T. .............................................President-Assistant Superintendent
A.B., M.A., Chico State College
Ed.D., University of California at Berkeley

McLANE, LUCILLE M. ..........................................Associate Professor of Health and Physical Education
B.S., University of California at Los Angeles
M.A., California State College at Los Angeles

*McNULTY, MRS. DOROTHEA K. .........................Psychology
B.A., California State College at Los Angeles
M.S., University of Southern California

MESEC, MURRAY ..............................................Physical Education, Baseball, Golf,
B.S., M.A., Northwestern University Recreational Leadership, Intramural

MILLER, EMIL A. .............................................Associate Professor of Applied Science
B.V.E., M.A., California State College at Los Angeles

*MILLER, RAY ..................................................Supervisory Training
B.S., United States Naval Academy, Annapolis Cert. Naval
Intelligence and Language School, Anacostia, D.C.

MILLER, SHERMAN C. .................................Division Chairman, Business Education;
Accounting, Merchandising, Salesmanship,
Introduction to Business
A.B., Carleton College
M.B.A., Harvard Graduate School of Business Administration

MONDRUS, MARTIN ..........................................Associate Professor of Art
A.B., California State College at Los Angeles
M.F.A., Claremont Graduate School

MORROS, GEORGE P. .........................................Associate Professor
A.B., M.A., University of Southern California

*MORSE, VAUGHN C. ..........................................Machine Shop
B.A., Fresno State
M.A., California State College at Los Angeles

NEAL, ELIZABETH H. ........................................Associate Professor
R.N., Riverside Community Hospital School of Nursing
B.S., University of California at Los Angeles
M.A., California State College at Los Angeles

NIBLEY, LINDA S. ...........................................Assistant Professor of English
A.B., M.A., University of California at Los Angeles

NISSEN, EDWARD E. ..........................................Accounting
B.S., Midland College
M.A., Omaha University

NORLEY, MARK W. ...........................................Art History
B.S., Montana State University
M.A., California State College at Los Angeles

NORMAN, RUSSELL F. .......................................Professor of Business
B.S., M.Ed., University of California at Los Angeles

NORRIS, LEE ...............................................Aerospace Technologies

NUNN, MARSHALL E. .......................................Associate Professor
A.B., Stanford University
M.S.L.S., University of Southern California

*Part time
Osborne, A. T. ......................................................... Police Science
B.S., California State College at Los Angeles

Parker, William L. .................................................. Assistant Professor of Philosophy
A.B., Pasadena College (Nazarene)
M.A., University of Southern California

Pavelsky, Robert L. .................................................. Psychology
B.A., M.A., Pepperdine College

Penman, Blanche ................................................... Cosmetology
Voc. Class A & Administrative, University of California at Los Angeles

Pezzuti, Anne ...................................................... Associate Professor of Business
B.S., Indiana University of Pennsylvania, Indiana, Pennsylvania
M.A., New York University

Pierce, James O. ..................................................... Counselor
B.Mus., M.Mus., University of Texas

Plunkett, Harry .................................................... Business Law
B.S., University of Illinois
L.L.B., New York University and Southwestern School of Law

Pogosian, Barbara .................................................. Microbiology, Biology
A.A., East Los Angeles College
B.A., University of California at Los Angeles
M.S., California State College at Long Beach

Rasmussen, N. Arthur .............................................. Associate Professor of History
A.B., M.A., Occidental College

Reinhart, C. William ............................................... Assistant Professor of Health
and Physical Education
A.B., University of California at Berkeley

Rice, Raymond E. ................................................... Instructor of Mathematics
B.A., Willamette University, Oregon
M.A., University of California at Riverside

Rowland, William D. ............................................... Mathematics
B.S., University of Redlands

Ryan, Thomas S. ................................................... Dean-Technical-Vocational Education
B.S., M.S., University of Southern California

Sanelli, Albert T. ................................................... History
B.S., Arizona State University
M.A., San Francisco State

Sartoris, James M. .................................................. Physical Education
B.A., University of Washington
Assistant Football Coach
Assistant Baseball Coach

Savin, Walter ....................................................... Typing
B.S., California State College at Los Angeles

Schultz, Julia A. ................................................... Cosmetology
Class D Credential, Extension University of California at Los Angeles

Scott, Robert K. ................................................... English, Theater Arts
A.B., M.A., California State College at Los Angeles

Seastrom, Walter E. ............................................... Supervisory Training
B. of Engrg., M.B.A., University of Southern California

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*Part time
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A.B., Occidental College
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B.Sci., Ohio State University
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SHERMAN, JACOYNA A. ........................................Vocational Nursing
B.S., Loma Linda University

SHIVELY, JR., JOHN D. .......................................Associate Professor of Applied Science
B.S., Whittier College

SMITH, J. WALTER .............................................Dean of Student Activities
B.S., M.S., University of Southern California

SMITH, JAMES M. ............................................History, Social Science, Sociology
B.A., M.A., California State College at Los Angeles

SMYSER, STEVEN W. ...........................................English
A.B., Lehigh University
M.A., University of California at Los Angeles

SOBELLE, MARGARET E. .......................................Professor of French
Wellesley College
Diplôme Supérieur d'Etudes Françaises L'Université de Nancy
Degré Supérieur, La Sorbonne
A.B., Occidental College

SPRAGUE, DIANE L. ...........................................Counseling
A.B., University of Michigan
M.S., California State College at Los Angeles

STONE, JOSEPH F. .............................................Aerospace Technologies

*STONE, DONALD M. ..............................................English
M.A., University of California at Los Angeles

STONEY, DAISIE A. ............................................Assistant Professor of Home Arts
A.B., M.A., University of California at Los Angeles

STRANDBERG, KARL A. ..........................................Business
B.S., M.B.A., California State College at Long Beach

STRANGE, WILLIAM J. .........................................Assistant Professor
B.S., M.S., Kansas State Teachers College of Emporia

*STURGES, CLYDE W. .........................................Law for Laymen
B.A., University of Iowa
M.A., Colorado State College
L.L.B., University of Southern California

*TAKAHASHI, MARILYN ......................................Medical Terminology
Junior College Credential and Adult Education Credential,
Los Angeles City College, University of California at Los Angeles,
University of Southern California

TANSLEY, JOHN A. .............................................Health and Physical Education
Track, Cross Country
A.A., Chaffey College
A.B., California State College at Long Beach

*TAUFFER, WILLIAM DALE ....................................Political Science
B.A., M.A., California State College at Los Angeles

*Part time
TAYLOR, WILLIAM L. ..................................................History
A.A., Glendale College
B.A., University of California at Los Angeles
M.A., California State College at Los Angeles

THOMAS, JOSEPH G. ..................................................Associate Professor of English
A.B., M.Ed., University of New Hampshire

THOMPSOM, JOHN R. ........................................Supervisory Training

THOMSEN, ROBERT E. ...........................................Professor of Art
A.B., California College of Arts and Crafts
M.A., Stanford University

THRELKELD, GEORGIA R. .........................Associate Professor of Mathematics
A.B., University of California at Los Angeles
M.A., University of Southern California

TITCHENAL, DAVID L. .................................Associate Professor of Health
A.B., San Jose State College
M.A., University of Southern California
and Physical Education

TRUPP, S. KENNETH ............................................English
B.A., Roanoke College, Virginia
M.A., San Francisco State College

TUCKER, DELOS R. ........................................Geology, Paleontology
B.S., M.S., Louisiana State University
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* VAN OOSTERHOUT, WALTER B. ..................Aerospace Technologies
B.S.E.E., M.T.S., Utrecht

VALUKONTS, MARIE R. .................................Chemistry, Mathematics
B.S., University of Detroit
M.S., University of Michigan

VARGO, EDWARD M. .........................................Aircraft Powerplants

VELTMAN, CLARENCE ..................................Professor of Chemistry
A.B., Hope College
M.S., Washington University, St. Louis

* VESSELLA, THOMAS ........................................First Aid
B.A., California State College at Los Angeles

* WEBBER, EVA ...........................................English
B.A., Dakota Wesleyan
M.A., University of Southern California

* WERNER, ROBERT W. ..................................Police Science
A.A., El Camino College

WHEELOCK, CHARLES C. ......................Dean-Adult Education and
A.B., Westmont College, Santa Barbara
M.A., California State College at Los Angeles
Ed.D., University of California at Los Angeles
Summer Session

* WHITE, CHARLES K. ..................................Health Education
B.S.Ed., M.S., University of Southern California

* WISELY, WESLEY M. ..................................Mathematics
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M.Ed., University of Illinois

* WISKUP, LEON A. ........................................English
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M.A., Boston University

*Part time

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