FOREWORD

Bakersfield College offers an enormous number of programs and services that are designed to meet the educational, occupational, and, to some degree, the personal needs of the students who enroll here. This catalog attempts to present, in a useful way, a sort of road map to help students find their way. Courses and programs are described, procedures are outlined, services are noted, the faculty is listed, and campus buildings are plotted. Students should take a few minutes to become better acquainted with Bakersfield College through the pages of this publication.

Welcome to Bakersfield College.

John J. Collins
President

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BAKERSFIELD COLLEGE
CALENDAR

FALL SEMESTER

September 2, 1980 — January 20, 1981

August 26—28. Registration Days
September 2. Instruction Begins
September 2–5. Late Registration and Program Changes
September 22. First Census Day
September 25. Census Reports Due
September 26. Last Day to Withdraw From a Class Without Possible Penalty
October 29–31. Mid-term Examinations
November 4. Mid-term Grades Due
November 10. Second Census Day
November 13. Second Census Reports Due
January 12. Last Day to Withdraw From a Class
January 13–20. Final Examinations
January 20. Classes End Fall Semester
January 22. Final Grades Due

SPRING SEMESTER


January 20–22. Registration Days
January 26. Instruction Begins
January 26–30. Late Registration and Program Changes
February 17. First Census Day
February 19. Census Reports Due
February 20. Last Day to Withdraw From a Class Without Possible Penalty
March 23–27. Mid-term Examinations
March 30. Second Census Day
March 31. Second Census Reports Due
April 2. Mid-term Grades Due
April 2. Second Census Reports Due
May 28. Last Day to Withdraw From a Class
May 29—June 5. Final Examinations
June 5. Commencement, End of Semester
June 9. Final Grades Due
THE COLLEGE

BAKERSFIELD COLLEGE

Bakersfield College, established in 1913, is one of the oldest two-year community colleges in the nation. The initial program offered a one-year curriculum, and in 1915 trustees authorized a second year of junior college and normal school courses. The college opened its multi-million dollar campus on Panorama Drive in 1956. Bakersfield College has continued to grow and to meet the community needs of Kern County, which is noted for its rich petroleum and agricultural industries.

ORGANIZATION

The college is operated by the Kern Community College District, formed in 1961. In 1967, Porterville College joined the district. Cerro Coso, serving Ridgecrest and the desert area, began operation in 1973 as part of KCCD. The district draws students from the Delano Joint Union High School District, Kern High School District (Arvin, Bakersfield, East, Bakersfield Evening, Foothill, Highland, North, Kern Valley, McFarland, Shafter, South and West High Schools), the Mojave Unified School District, the Muroc Unified School District (Boron and Desert High Schools), Porterville Union High School District, the Tehachapi Unified School District, Trono Joint High School District, and the Wasco Union High School District.
ACCREDITATION

Bakersfield College, approved by the Chancellor of the California Community Colleges, is officially accredited by the Western Association of Schools and Colleges. It meets all standards of the California State Department of Education and is listed in the Education Directory, Higher Education, Part 3, published by the United States Office of Education. The University of California and other colleges and universities of high rank give full credit for appropriate courses completed at Bakersfield College.

LEAGUE FOR INNOVATION

The Kern Community College District is a charter member of the League for Innovation in the Community College. League membership includes sixteen of the most innovative community college districts in the nation.

Membership in the League constitutes a significant recognition of the Kern Community College District’s commitment to excellence in innovation and experimentation designed to enrich and improve all aspects of the college.

Numerous projects have been funded directly through the League. By its membership and active participation, this college reaffirms its dedication to providing the best possible educational program and the fullest utilization of its splendid resources to serving the needs of Bakersfield and Kern County.

LEARNING CENTER

The Learning Center comprises a small world of special tutors, instructors, and learning devices. This well-equipped, professionally staffed center offers tutorial services, reading classes, learning skills courses, open-entry math classes, and an Educational Diagnostic Clinic. If a student needs to improve reading comprehension, vocabulary, scanning or note-taking skills, or improve reading skills, the Learning Center has a class for him.

Open-entry open-exit math classes include arithmetic, prep algebra, college algebra, intermediate algebra and trigonometry. Students work at their own pace and study and test on their own. The Educational Diagnostic Clinic offers diagnostic testing, prescriptive reading, and support in passing other subjects.

PHILOSOPHY

No educational system is more uniquely American than the community college, developed to meet the ever-changing needs of a rapidly growing, technically-oriented, urban society. The increasing popularity of the community college comes from the recognition that communities have constantly changing educational needs. This college maintains an open-door policy designed to meet intellectual, technical, social, and recreational needs.

Bakersfield College recognizes its responsibility to meet these needs as they occur and to anticipate future demands. The college, with its outstanding facilities and a highly trained faculty and staff, has always been ready to organize new courses and programs to meet specific needs.

LIBRARY

Located in the center of campus, the Grace Van Dyke Bird Library has over 54,000 books and bound periodicals, 360 current publications, and six newspapers. Two large reading rooms with carrels, tables, and lounge-type chairs provide a pleasing, attractive atmosphere for quiet study or leisure reading. Small conference-type seminar rooms are available for group work, and a typing room provides typewriters for students.

OBJECTIVES

The major goals of this college, implemented by guidelines adopted by the elected Board of Trustees, are:

1. A number of post-high school and learning opportunities to meet the educational, technical, vocational, avocational, and general interest needs of the community;

2. Student personnel services to meet the individual needs, such as help in the selection of a vocation or life style, choice of learning activities, and ways of dealing with personal concerns or inter-personal relationships.

3. A flexible program of educational, cultural and recreational services in addition to the regularly scheduled day and evening classes to serve the various needs of the community.
FUNCTIONS

Bakersfield College is committed to leadership in providing quality education in partnership with the community. To meet these objectives, the following functions are carried out:

1. General Education: Education in the arts, sciences, and humanities is provided to encourage the student to broaden his outlines of human knowledge and experience.

2. Career Education: Courses and training are available to prepare students for entrance into many occupational areas, in cooperation with business, labor, industry, agriculture and public service agencies.

3. College Transfer and Preprofessional Education: Two year lower-division transfer programs in the sciences and liberal arts are provided to prepare students for transfer to four-year colleges and universities.

4. Developmental Education: The college offers programs designed to allow students to improve basic skills essential to successful completion of college goals. Developmental programs are provided for students whose educational backgrounds are insufficient to allow them entry into degree or other programs.

CONTINUING EDUCATION AND SUMMER SESSION

Continuing education classes are offered by Bakersfield College at convenient times during the day and evening, both on and off campus. Most of these are regular college courses, which carry the same requirements and credits as regular day classes. Most evening classes are offered one night per week for two or three hours, Monday through Thursday. Other courses are scheduled from 5:30 to 7:00 P.M., two days per week. Thus, a student may enroll in nine units and attend classes only two nights per week. A limited number of classes are offered on Saturday.

It is possible for a student to meet all requirements for graduation through continuing education classes. Adult education courses are offered by the college to meet particular or special community needs.

Bakersfield College is a member of the CONSORTIUM FOR COMMUNITY COLLEGE TELEVISION, a cooperative enterprise of thirty-two Southern California community colleges. Students earn regular college credits and may view the programs and complete the study assignments at home. Examinations are held at Bakersfield College. Further information regarding TV courses may be obtained in the Continuing Education office.

The college also conducts a six-week summer session with both day and evening classes. Depending upon public demand, the class schedule may include some courses given during the regular session. For further information, write or phone Continuing Education and Summer Session Office.

COMMUNITY SERVICES

The Office of Community Services sponsors a variety of cultural events each year on campus. Professional performing artists and well-known speakers are brought to the campus under the Community Service Lecture and Concert Series.

In addition to the cultural entertainment programs, the Office of Community Services offers a wide variety of courses and seminars of special interest. These courses provide informal instruction without grades or credit and are self-supporting through a nominal fee to cover the cost of instruction and materials.

USE OF COLLEGE FACILITIES

Campus and community groups desiring to use facilities on campus for lectures, films, conferences, or meetings are assisted by the Community Services Office.

PLANETARIUM

The BC Planetarium has served over 75,000 people. This unique educational resource has been utilized by schools throughout the country, as well as by many community groups. Several interesting illustrated lectures are available to choose from for groups of 35 to 65 people. Community Services handles reservations for the planetarium.
DELANO CENTER

Established in 1972, the Delano Center serves educational needs of residents in the northern Kern County area. The center is operated by Bakersfield College and offers a wide spectrum of courses, both liberal arts transfer classes and short term credit courses. Vocational career classes and programs emphasize the life-long learning philosophy of the Kern Community College District. Classes meet afternoons and evenings for maximum convenience. The Delano Center, with its new campus which opened in 1977, offers CETA training programs designed to develop occupational skills required for employment in local industry and public service agencies.

SENIOR CITIZEN PROGRAMS

At convenient community locations, senior citizens will find special classes geared to their specific needs, without the bother of tests, grades, or pressure. These classes are taught by competent, qualified instructors, and the stress is on informality and fellowship. There are no tuition or registration fees; seniors wishing to enroll in regular classes are encouraged to do so. Special guidance and assistance is available. Persons wishing further information or who wish to suggest additional programs or locations are invited to call the Bakersfield College Senior Citizen Office, located in the Downtown Campus.

HANDICAP SERVICE CENTER

Handicapped Students are not forgotten at Bakersfield College. The Handicap Service Center provides special services and equipment that will enable handicapped students to participate in the mainstream of college activities. These special services include counseling, registration assistance, prescriptive assessment, tutoring, mobility assistance, speech therapy, interpreters for the deaf, and readers for the blind. Special equipment includes wheelchairs, typewriters (Braille, large-print, electric), tape recorders, notetakers, books (Braille, large-print tape), and visual devices.

INSTRUCTIONAL COMPUTER CENTER

Some of the best job/career opportunities are in computer science programming. Bakersfield College is riding the wave of the future with a data processing certificate program. Olin Kirkland, faculty computer expert, started using computers while teaching history in a San Francisco high school and has directed computer programming at BC since 1976. The college’s versatile computer is used for data processing, computer science, and training in computer language for chemistry, astronomy, economics, accounting, history, agriculture and counseling.

The BC Instructional Computer Center is designed for two main goals: training for job opportunities and developing programs for use in other campus departments. Programs for student use have been developed for remedial learning skills and to provide practice in learning French and Spanish. The growing interest in the way computers can serve society is reflected in ever-increasing enrollment in these classes. Computer science is highly math-oriented, Kirkland stresses. He terms it a “basic tool... of the future”.

DOWNTOWN CENTER

The Downtown Center (DTC), at 21st and Chester in downtown Bakersfield, is centrally located and easily reached by bus. The DTC is a unique development offering a wide range of classes. It recognizes that business and professional people should have a campus that affords job skill opportunities with the convenience of open-entry classes.

Career and vocational programs at the DTC include clerical and secretarial, accounting and business machines, marketing, fashion merchandising, mathematics, electronics, and police and fire science classes. A variety of transfer and general educational courses enable students to plan transfer programs and meet requirements for an Associate in Arts degree. The DTC incorporates a learning center, a library and resource center, and a career-academic counseling center.

The open-entry plan allows students, depending upon their desires and needs, to enroll at different times of the year and to complete courses when they reach their goals or attain desired skill levels.
ADMISSIONS and REGISTRATION PROCEDURES

ACADEMIC ELIGIBILITY

A high school graduate may be admitted to Bakersfield College.

High school juniors and seniors who qualify for the “Concurrent Enrollment” program may be admitted on a part-time basis upon the recommendation of a high school principal and with the approval of the Director of Admissions and Records.

A non-high school graduate over 18 years of age may be admitted to Bakersfield College if his/her previous training or experience indicates that he/she will profit from the offerings of the college. Such student must have the approval of the Director of Admissions and Records.

Advanced standing will be granted any student who presents a certified credential from an accredited college and a statement of honorable dismissal. These papers should be filed in the office of the Director of Admissions and Records, preferably three weeks before the opening of the semester.

RESIDENCE ELIGIBILITY

Any legal resident of the Kern Community College District may be admitted.

A student whose legal residence is in a district in California which maintains a community college may be admitted only when there is a contractual arrangement between the Board of Trustees of the district of residence and the Board of Trustees of the Kern Community College District, and an attendance permit is granted by the district of residence.

Notices of Restriction (Education Code Section 25505.5) are in effect between the Kern Community College District and the following community college districts: Antelope Valley, Barstow, Cerritos, Coachella Valley, Compton, Foothill (DeAnza and Foothill College), Fremont-Newark (Ohlone College), Gavilan, Hartnell, Marin (Indian Valley and Marin College), Mendocino, Merced, Mt. San Jacinto, Palomar, Redwoods, Riverside, Saddleback, San Joaquin Delta, San Jose, San Luis Obispo (Cuesta College), San Mateo (Canada, San Mateo and Skyline College), Santa Barbara, Santa Clarita (College of the Canyons), Siskiyou, South County (Chabot College), Solano, West Hills, West Kern (Taft College). These notices prohibit the attendance of residents of any of the above named districts at a college of the Kern Community College District unless a permit has been issued; in the same manner residents of this district are prohibited from attendance at any one of the colleges of the above listed districts unless a permit has been issued.

Only under unusual circumstances will permits be issued for students of this district to attend any one of the following colleges: Butte, DeAnza, Foothill, Indian Valley, Marin and Santa Barbara.
DETERMINATION OF STUDENT RESIDENCE

1. Every person has in law, a residence.

2. Every person who is married or 18 years of age, or older, and under no legal disability to do so, may establish residence.

3. In determining the place of residence the following rules are to be observed:
   (a) There can only be one residence.
   (b) A residence is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he/she returns in seasons of repose.
   (c) A residence cannot be lost until another is gained.
   (d) The residence can be changed only by the union of act and intent.
   (e) A man or a woman may establish his or her residence. A woman's residence shall not be derivative from that of her husband.
   (f) The residence of the parent with whom an unmarried minor child maintains his/her place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, his/her residence is that of the parent with whom he/she maintained his/her last place of abode, provided the minor may establish his/her residence when both parents are deceased and a legal guardian has not been appointed.
   (g) The residence of an unmarried minor who has a parent living cannot be changed by his/her own act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control.

FEES

There is no tuition for students who qualify as legal residents of California. The non-resident tuition fee for the academic year 1980-81 is $1,691.00 or $840.00 per semester. For students taking less than 15 units, the rate is $56.00 per unit. Non-resident students carrying 6 units or less are exempt from the tuition fee in both regular and summer sessions. Beginning with the 1980-81 academic year new foreign students are subject to the same fees as other non-residents. Tuition fees must be paid prior to admission to classes.

The tuition refund policy is available in the Office of Admissions and Records.

APPLICATION FOR ADMISSION

Applications may be obtained by writing the Records Office or by calling 395-4301. They should be filed in the Records Office before August 1 for entrance in the fall semester and before December 1 for entrance in the spring semester. The application should include the prospective student's Social Security number. Students who have not yet secured a Social Security number should take steps to do so several weeks in advance of the application deadlines.

A high school transcript and two transcripts from each college attended must be on file before the application may be processed.

Students who are not graduates of a California high school must provide verification of immunization against poliomyelitis and measles (rubeola). This regulation does not apply to students who are 21 years of age or older who enroll in less than 10 class hours per week.
A battery of aptitude and achievement tests including an English classification examination is administered to each entering student. The results of these tests are used to assist students and counselors in the selection of college classes. These tests are commonly given on Saturdays in March and April and again at announced times in August and December. Information regarding dates and times of examinations may be obtained from the College Testing Office.

Students are encouraged to take these tests during the spring semester of their senior year in high school in order to facilitate counseling and registration for fall programs. Students must allow an entire day for testing, however no special preparation is required.

PRELIMINARY PLANNING

Each student may have the assistance of a counselor in planning his program. Preliminary planning should be given in the selection of a major and courses in order to gain the full benefit of the counseling conference. In planning a program, the student should consider (1) the general requirements prescribed by the college; (2) the special requirements in his major field of study; (3) the general requirements of any future college or university he may expect to attend; (4) the most desirable electives.

The normal program includes 15 to 16 units of work per semester including physical education. The average student can complete his requirements for graduation in four semesters providing there are only slight variations from the normal program.

Generally each class hour represents one unit of credit, e.g., a course that meets three hours a week will yield three units of credit. The number of credits a course yields follows in parenthesis the listing of the course title in the description of courses in this catalogue.

In preparing his/her program, the student should estimate that two hours of preparation outside of class for each class hour are necessary to meet satisfactorily the standards of an academic course.

Normally a student is expected to carry 12 to 17 units of work a semester. Student capabilities and outside work programs are significant factors in determining the student's study list. Eighteen and one-half units constitute a maximum study program. Only students with proven academic ability should enroll for a maximum program. Selective Service, Veterans Administration and Social Security require minimum study loads.

COMPLETING REGISTRATION

Following admission the student may complete registration-counseling and be registered into classes.

At the time of registration the student will receive his registration card, purchase his student body card and pay his health fee and non-resident tuition fees (if required).

The student body membership card is fixed at $10.00 per year. Students attending only the spring semester will pay a five dollar membership fee.

The College Bookstore is open during the summer months as well as the regular semesters. It is estimated that the cost of books and supplies will be $100.00 to $125.00 per semester.

Students must supply their own suits for physical education class work. Regulation suits are worn.

MINIMUM STUDY LOADS

Students must enroll in a minimum study load in order to meet certain qualifications such as:

1. Certification as a full time student to the Department of Health, Education and Welfare: 12 units a semester.

2. Approval by the Veterans Administration for training under Chapter 31, 34 or 35, Title 38 U.S. Code—

<table>
<thead>
<tr>
<th></th>
<th>Semester</th>
<th>Summer</th>
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<tbody>
<tr>
<td>Full time</td>
<td>12 units</td>
<td>4 units</td>
</tr>
<tr>
<td>Three-fourths time</td>
<td>9-11 units</td>
<td>3 units</td>
</tr>
<tr>
<td>One-half time</td>
<td>6-8 units</td>
<td>2 units</td>
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</tbody>
</table>

3. "F-1" Visa (foreign) student status: 12½ units a semester.

4. Eligibility to participate in intercollegiate athletics: 12 units (repeated courses, previously passed with a "C" or higher cannot be counted.

5. Eligibility to participate in student government as an office holder: 12 units.
ACADEMIC REGULATIONS

GRADING SYSTEM

Grades are earned and awarded in each course and are recorded on the student’s permanent record. Evaluation of student achievement will be made in relation to the attainment of the specific objectives of the course. At the beginning of a course the instructor will explain these objectives and the basis upon which grades are determined.

A student’s work is considered satisfactory when he/she maintains an average of “C” (grade point average of 2.0) or higher.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
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<tbody>
<tr>
<td>A - Excellent</td>
<td>4 per unit</td>
</tr>
<tr>
<td>B - Above Average</td>
<td>3 per unit</td>
</tr>
<tr>
<td>C - Average</td>
<td>2 per unit</td>
</tr>
<tr>
<td>D - Passing</td>
<td>1 per unit</td>
</tr>
<tr>
<td>CR - Credit</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>NC - No Credit</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>Inc - Incomplete</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>W - Withdrawn</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>IP - In Progress</td>
<td>Not computed in GPA</td>
</tr>
</tbody>
</table>

CRITERIA FOR LETTER GRADES

Grade A – A Distinguished Grade

1. The student has mastered the content of the course, is able to apply what he/she has learned to new situations, and is able to relate it to other knowledge.

2. The student consistently distinguishes himself/herself in examinations, reports, projects, and class participation.

3. The student shows independent thinking in assignments and class discussion.

4. Work is consistently in proper form, and where required shows satisfactory evidence of careful research, and is submitted punctually.

5. Where achievement in the course involves development of hand or body skills, the student consistently demonstrates superior skills, ability, and performance.

6. The student complies with attendance regulations.

Grade B – An Above-Average Grade

1. The student consistently shows mastery of the course content, and usually is able to apply it to new situations or to relate it to other knowledge.

2. The student is consistently above average in examinations, reports, projects, and class participation.

3. Work is in proper form, and where required shows satisfactory evidence of research, and is submitted punctually.

4. Where achievement in the course involves development of hand or body skills, the student consistently demonstrates above average skills, ability, and performance.

5. The student complies with attendance regulations.
Grade C - An Average Grade, Permitting Progress Forward in Course Sequences

1. The student shows evidence of a reasonable comprehension of the subject matter of the course and has an average mastery of the content, sufficient to indicate success in the next course in the same field.

2. Assignments are completed in good form and on time.

3. If the subject carries transfer credit, the student has indicated sufficient competence in the content to continue in the subject field upon transfer.

4. The student consistently makes average scores on examinations, projects, and reports.

5. Where achievement in the course involves development of hand or body skills, the student consistently demonstrates average skills, ability, and performance.

6. The student complies with attendance regulations.

Grade D - A Below-Average, Passing Grade

1. The student falls below the average in examinations, projects, and reports, but shows some competence in the assigned subject matter of the course.

2. Assignments are completed in imperfect form, sometimes late, or of inconsistent quality.

3. Where achievement in the course involves development of hand or body skills, the student consistently demonstrates useable, but below-average skills, ability, and performance.

4. The student complies with attendance regulations.

NC - No Credit

1. With respect to examinations, projects, and reports, the student fails to perform at the "D" or above level.

2. Where achievement in the course involves development of hand or body skills, the student fails to perform at the "D" or above level.

3. The student fails to comply with attendance regulations.
Credit – No Credit

Some courses are offered on a credit-no credit basis. Upon successful completion of such a course, unit credit will be awarded. However, courses taken on a credit-no credit basis are not used in the computation of a student’s grade point average. Regulations for such courses are:

1. A maximum of 12 units may be taken on a credit-no credit basis and applied toward the AA and AS degrees at Bakersfield College.

2. A maximum of three units per semester may be taken on a credit-no credit basis. Exceptions to this rule may be made by the Dean of Admissions and Records in cases involving special remedial programs; however, a maximum of six units on a credit-no credit basis would be allowed in such exceptional cases.

3. In courses in which credit-no credit is authorized, the credit grade is granted for performance which is equivalent to the letter grade of “C” or better.

4. Combination classes (credit-no credit or grades) must have an A, B, C, D and credit-no credit system.

5. The election of a class by credit-no credit shall be by petition filed with the Office of Admissions and Records no later than the last day of instruction preceding final examinations for the semester.

6. When a student has established the basis for grading as credit-no credit or a letter grade, he/she may not elect to change after the established deadline.

7. Courses in which credit-no credit grading may be used must be so designated by the department involved. A department may require majors to obtain letter grades in that department’s major subjects. The following courses may be taken on a credit-no credit or on a letter grade basis, except as indicated.

ADMINISTRATION OF JUSTICE 55a–55b, 70 series; AGRICULTURE 77; ANTHROPOLGY 4; ART – all courses; BIOLOGY 12, 14, 21; BROADCASTING 60; CHILD DEVELOPMENT – all courses (except that Early Childhood Development majors may not take Ch Dv 13a, 13b, 40a, 40b, 40c, 41a, 41b, 41c, 43 or 51 for credit-no credit); COUNSELING 1, 5, 11, 12, 13; ENGLISH – all courses except Engl 1 60; FAMILY AND CONSUMER EDUCATION: All CLOTHING, DECORATIVE ARTS, FAMILY STUDIES, FASHION MERCHANDISING, INSTITUTIONAL MANAGEMENT, INTERIOR DESIGN and NUTRITION courses (transfer majors may not take transfer courses which are part of the major on a credit-no credit basis); HISTORY – all courses except Hist 8a, 8b; JOURNALISM 51; LIBRARY TECHNOLOGY – all courses; MATHEMATICS 60 (a credit does not qualify a student for MATH A); MUSIC 22, 40; NURSING 71; OFFICE SKILLS 50a; PHILOSOPHY – all courses (except Philosophy majors); PHYSICAL EDUCATION 6sk, 6skc; POLITICAL SCIENCE - all courses; PSYCHOLOGY 31, 32, 44, 52, 55, 63; READING 62; SOCIAL SCIENCE 53a, 53b; SOCIOLOGY 21, 27; SPECIAL EDUCATION 40a, 40b, 40L; SPEECH 35, 42 55; THEATRE ARTS – all courses (except for Theatre Arts majors); WOMEN STUDIES 20.
INC – Incomplete

A grade of “Inc.” indicates the student has not completed the requirements of the course. The instructor must indicate on the Scholarship Record a statement of the requirements for clearance of the incomplete. An “Inc.” must be made up prior to the conclusion of the next semester of attendance or the grade will be changed to “NC.” An “Inc.” may not be assigned as a withdrawal grade.

W – Withdrawn

The student has withdrawn from a course or has been dropped from a course by the instructor, as indicated in these regulations.

IP – In Progress

The student has applied for in-progress status in those courses listed as open-entry/open-exit courses, and has been approved by the instructor to register and complete course requirements in a succeeding semester in order to receive credit and a course grade.

CREDIT BY EXAMINATION

Credit by examination may be granted to a student enrolled at Bakersfield College subject to certain conditions. Information on the policy and procedures for challenging a course for credit by examination may be obtained at the Records Office.

DEAN’S LIST

Special recognition is accorded students who maintain a 3.3 grade point average during a semester in which they accumulate at least 42 grade points. Students whose academic achievement is at this level are placed on the Dean’s List and are given general recognition on campus and in the community.

GRADUATION WITH HONORS

Students whose cumulative grade point average is 3.5 or higher will be graduated with honors. Transcripts will indicate this honor.

PROBATION

A student shall be placed on probation when he/she has earned a semester grade point average below 2.0. A student who attempts eight or more units in a given semester shall be placed on probation when he/she has failed to receive credit or “IP” in more than 50% of the units attempted. A student transferring from another collegiate institution will be placed on probation according to these same standards.

DISQUALIFICATION

Any student whose grades for two consecutive semesters places him/her on probation shall be disqualified for admission to classes the following semester.

REINSTatement

A student who is disqualified may be conditionally readmitted after a lapse of one semester upon petition to the Dean of Admissions and Records.

REPEATING A COURSE

A student may repeat the course in which a grade lower than a “C” or its equivalent has been earned. With the approval of the President of the College, departments may require prior approval of the Department Chair before a student is permitted to repeat the course. The student may petition the Records Office to count (for grade point calculation) ONLY the most recently earned units, grades and grade points when the student has repeated a course and received a grade of “A,” “B,” “C,” “D,” or “CR.” Both the original and subsequent grades will remain a part of the Permanent Record. The College can provide no assurance that repeated courses will be treated in a like manner by other institutions.
LATE ENTRANCE AND EXCLUSION

After the second week of the semester, students may be admitted to semester length classes, other than open-entry/open-exit classes, and to short term classes ONLY with the instructor’s written permission.

Students may be admitted to open-entry/open-exit classes after the close of the 14th week of the semester. However, under these circumstances he/she may not be officially enrolled until the following semester or session.

ATTENDANCE

The attendance policy for each course is established by the instructor and communicated to each class, preferably in writing. Attendance policies will be reasonably related to course objectives, the requirements of institutional reporting, and legitimate absences. Instructors are responsible for maintaining accurate attendance and scholarship records.

While it is the responsibility of instructors to communicate attendance policies and to apply them equally to all students, it is the responsibility of students to know the policy in each of their classes and to be aware of their current attendance status. Students who have been absent from a class should notify the instructor of the reason for the absence. Absence in no way relieves students of responsibility for work missed. Excessive absence may result in the student being dropped from the course. Instructors may drop a student from a course when absences number the equivalent of two weeks of class recorded from the first day of instruction. If particular circumstances warrant and can be justified academically, faculty members may drop students after less than two weeks of absences.

Faculty members should give full consideration to excusing students from classes to participate in scheduled college activities, e.g. athletics, music, forensics, field trips, etc. The student must make arrangements in advance to make up the work to be missed.

WITHDRAWAL FROM COURSES

Students may withdraw or be dropped from any course without penalty through the last day of instruction preceding final examinations for the semester. In the case of withdrawal, it is the student’s responsibility to file a Program Change form in the Office of Admissions and Records and to return all checked out equipment to the class instructor.

Using the proper form, instructors may, through the last day of instruction preceding final examinations for the semester, drop students from a course for non-attendance, disruption, or failure to meet the requirements of the course. Instructors may also drop students from a course at the beginning of the term for failure to meet course prerequisites.

A student who withdraws or is dropped from a course prior to the eighth week will not have the course included on the permanent record. A “W” will appear on the permanent record for courses dropped after the seventh week.
WITHDRAWAL FROM COLLEGE

Students who find it necessary to withdraw from College are to complete and file a Petition to Withdraw in the Office of Admissions and Records. Students are required to obtain signed clearance on the petition for all checked out lockers and equipment, library books and fines, and debts owed the College.

EXAMINATIONS

A final examination or evaluation is required in all courses. Instructors will give final examinations or evaluations at the regularly scheduled time.

GRADE CHANGES

A student who feels a grade is in error may request a review of the grade by the instructor. Errors may be corrected only upon petition of the instructor to the Office of Admissions and Records.

STUDENT CONDUCT

Students are expected to observe reasonable standards of behavior. Failure to respect the rules of the College and the rights of others are sufficient reasons for disciplinary action according to the Student Conduct and Fairness Procedure.

The Fairness Procedures for students (grievance procedures) are published in the Reneguide Student Handbook or a copy may be obtained in the Office of the Dean of Students.

LIBRARY REGULATIONS

Students are encouraged to visit the Library and acquaint themselves with the many resources and services. A reference librarian is available to assist in locating and using the library materials.

Information on library hours and regulations is given in the Student Handbook or may be obtained from a member of the Library Staff.

STUDENT PERSONNEL SERVICES

COUNSELING AND TESTING

Bakersfield College offers a wide variety of services designed to assist students in choosing their courses and planning their futures. Counseling services are available to help students with their immediate needs and future academic and vocational goals. Purposes of the programs are:

1. To help students clearly understand their capacities and aptitudes, as they relate to college work and chosen occupation.

2. To encourage students to make sound educational plans.

3. To provide students with up-to-date information about demands and opportunities in industry and business.

4. To assist students in analyzing study difficulties and to help them make necessary adjustments.

5. To help students make proper transfers to whatever subsequent college they may attend or to help them obtain employment if they decide to complete their formal schooling at Bakersfield College.

Professional counselors and advisers can assist students in working out study programs that incorporate their aims and recognize their previous educational experience and scholastic aptitudes.

Sound vocational planning is based largely on knowledge of particular job requirements and general employment trends. This detailed career information is available in the Career Planning, Information and Development Center, where the Eureka-CIS computer helps match student abilities and job desires with current information about career possibilities and educational programs. The instructional program emphasizes vocational outlets for major courses of study. The College Placement Bureau assists students in locating part-time or vacation employment while attending college or in finding permanent jobs when they graduate.
HEALTH SERVICES

The Student Health Center is located in the concourse of the Library Building. Each student enrolling in day instructional classes will pay a health fee of $4.00 per semester. This fee entitles the student to all the services of the Health Center provided by a part-time physician and a full time registered nurse. The goal of the Center is to help students maintain a state of optimum health both mental and physical. This is achieved by emergency first aid treatment, counseling, physician consultation, and general medical and physical attention.

HOUSING

Bakersfield College has on campus two residence halls which provide room for approximately 120 students. Additional housing is available near the campus and listings are provided in the Housing Office (see Off-Campus Housing).

The college recognizes the importance of student housing as a part of its total educational program. Thus, to the extent that it is possible, on-campus housing is made available so that students may experience the companionship, cultural environment, and social opportunities which are a vital part of college life.

Eligibility for Assignment to Residence Halls

Residence in halls is ordinarily restricted to students who are registered for 12 or more units of regular college work and who live outside the normal commuting distance to the college. If the halls are filled and there is a waiting list for placement, applicants on that list who cannot commute to the college are given priority as openings occur.

When to Apply

Application forms are available for the Fall and Spring Semesters at any time during the academic year.

How to Apply

Application packets for the residence halls are available from the Housing Office, Bakersfield College, 1801 Panorama Drive, Bakersfield, California 93305.

All applications for the residence halls must be submitted with a $30.00 Security Deposit (check or money order made payable to Bakersfield College – Housing). Forward the application, contracts, and the $30.00 deposit to: Housing Office, Bakersfield College, 1801 Panorama Drive, Bakersfield, California 93305.

Notice of Assignment

When an assignment to the halls has been made, a space reservation notice will be forwarded to the applicant showing entering date and additional information required prior to occupancy.

Off-campus Housing

As a service to students seeking off-campus accommodations, the Housing Office keeps an up-to-date file of rooms and apartments that various householders and landlords list with the college. Although the college does not list these accommodations as "approved housing," there is the expectation that both landlords and students will live up to their respective obligations. Students may use these listings in search of off-campus housing; but, since they change daily, it is impossible to mail such lists. These listings describe in detail the facilities being offered. Apartments, rooms, and room and board are available within walking or easy commuting distance of the college and some rooms are available with kitchen privileges.

APPLICATIONS AND ALL CORRESPONDENCE SHOULD BE DIRECTED TO:
HOUSING OFFICE
C/O OFFICE OF STUDENT AFFAIRS
BAKERSFIELD COLLEGE
1801 PANORAMA DRIVE
BAKERSFIELD, CALIFORNIA 93305
VOCATIONAL REHABILITATION AID

In cooperation with the Department of Rehabilitation, Bakersfield College provides training programs for those having an employment handicap resulting from a physical, communication or emotional disability. The Department may provide for financial aid covering the full cost of fees and books and other services. Any student who believes he/she may be entitled to this assistance should consult with or address an inquiry to the Department. Offices are located in Room 4, 520 Kentucky Street (Tel: 323-2911) and 1820 20th Street (Tel: 322-1911), Bakersfield. Students applying for such aid are urged to report to the Special Education Office (Admin. 6) as soon as possible prior to the opening of a school semester.

VETERANS

Bakersfield College is approved as an institution of higher learning for the training of veterans and veterans’ dependents entitled to educational assistance. Veterans who have served in the armed services of the United States are eligible for admission. Veterans may arrange for training programs which will enable them to complete two years of college training, clear scholarship and subject deficiencies and/or complete high school graduation requirements. Bakersfield College will grant credit to veterans for specific service experience and certain educational training completed while in service. Evaluation of such experience and training will be made by the Records Office. Credit evaluations will conform to the regulations set forth by the State Approval Agency of the California State Department of Education and the recommendations of the American Council on Education. Evaluations made and credit allowed by Bakersfield College are subject to review and re-evaluation by any college or university to which the veteran may later transfer. All educational opportunities and personnel services offered in the college are available to the veterans.

A veteran who plans to enter Bakersfield College under Chapter 13 is required to have the Veterans Administration approve his occupational choice prior to his enrollment in college. The Bakersfield College Office of Veterans Affairs should be contacted for information and assistance, if needed.

Veterans who intend to enter Bakersfield College may secure necessary information regarding admission by calling or writing the Records Office.

SOCIAL SECURITY

Students who qualify for educational assistance under the provisions of the Social Security Laws should contact the local Social Security Office for detailed information.

PLACEMENT SERVICES AND PART-TIME EMPLOYMENT

The College Placement Office assists students in locating part-time, casual and vacation employment in the community while attending college; it also assists graduates in finding permanent full-time positions. In the area of part-time employment special effort is placed on locating work for which the student has been trained in order to relate his work experience to his vocational objective. The placement service is available to current students and graduates, as well as husbands and wives of current students. Since it is not always possible to secure employment immediately, the new 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. Every effort is made to find employment opportunities, but the Placement Office cannot guarantee that work will be found for all applicants. Referrals for placement are made on the basis of the student’s demonstrated academic achievement and possession of certain skills required by the employer. Other important factors include need and the hours the student is available to work. Since employers rely upon the college to furnish them with information helpful in evaluating applicants, the Placement Office works in close cooperation with department chairmen and instructors. Students desiring help in finding career positions are urged to register with the Placement Office early in the college year in which they will graduate. No charge is made for this service.
FINANCIAL ASSISTANCE

Students seeking financial assistance to meet the costs of education are encouraged to contact the Financial Aids Office, located in the Student Services Building. A variety of grants, scholarships, loans and part-time employment opportunities are available for students who qualify on the basis of enrollment, financial need, and/or special skills.

Applications and full information concerning the following programs can be obtained by personal contact or by phoning 395-4427:

BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG) Federal program of grants ranging from $200 to $1800 annually.

EXTENDED OPPORTUNITY PROGRAM AND SERVICES (EOPS) State supported program of grants and/or academic support in the form of tutoring and special counseling for low income students.

SCHOLARSHIPS Cash awards provided by local groups and organizations for students of academic merit and/or financial need.

NURSING STUDENT SCHOLARSHIPS Federal grant program for exceptionally needy students enrolled in the ADN Program.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT Federal program which provides additional grant assistance for students of exceptional financial need.

NATIONAL DIRECT STUDENT LOANS Federal program of low-interest, long-term repayment loans in amounts based on financial need up to $1,000 annually.

NURSING STUDENT LOANS Federal program of low-interest, long-term repayment loans for students enrolled in ADN Program. Loans may range up to $1500 annually.

GUARANTEED STUDENT LOANS State insured loans available from certain banks and lending institutions on long term repayment plans at seven percent interest.

SHORT-TERM EMERGENCY LOANS Loans of $50 or less for unexpected needs repayable within 30 days at no interest.

ON-CAMPUS EMPLOYMENT is available through College Work-Study, a Federally funded program for students who have need of employment to meet college expenses.

ON-CAMPUS EMPLOYMENT is also available for students with particular skills that are needed by various college departments. Financial need is not a criteria for this type of employment.

OFF-CAMPUS EMPLOYMENT is available with business firms in the community for students possessing skills required by employers. The Financial Aids Office makes referrals for placement based upon academic standing as well as skills and available hours to work.

STUDENT ACTIVITIES AND ORGANIZATIONS

The Associated Students of Bakersfield College is the student governing organization and has the major responsibilities for student government, campus organizations and the student activity program in general. The goals of this program harmonize with the goals of the college to provide opportunities for personal development, group cooperation, leadership development and the enrichment of college life.

The legislative power of the Associated Students is vested in a Board of Representatives whose members are elected by the students. This Board is composed of Student Body officers, Class officers and representatives from the student publications. All official action taken by the students of the college comes from the decisions of this Board.

Bakersfield College has a broad club and organization program representing professional service organizations, religious affiliations, athletics and special interests. The Activities Board coordinates club activities through representation from each club and organization.

Students find that clubs and organizations stimulate new interests and provide opportunities to develop leadership qualities and to render service to the college and community. In addition to general coordination, the Board seeks to encourage a worthwhile activity program. In particular the Board stages Homecoming in the Fall and the Spring Carnival, which are two of the major events held on the campus during the year.

The Associate in Arts or the Associate in Science degrees shall be conferred by the Board of Trustees of the Kern Community College District upon a Bakersfield College student who has satisfactorily completed the following requirements. These requirements are consistent with those prescribed by the Board of Governors of the California Community Colleges and the Board of Trustees of the Kern Community College District.

A. GENERAL REQUIREMENTS

1. Completion of 60 units of graded courses, with at least a 2.0 grade point average.

2. Twelve (12) units must be completed in residence at Bakersfield College.

3. Eighteen (18) units must be completed in a discipline, or from related disciplines as listed in the Community Colleges “Classification of Instructional Disciplines.”

4. Fifteen (15) units of general education must be completed, including at least three (3) units in each of the following areas: Natural Sciences, Social Sciences, Humanities, and Learning Skills.

B. SPECIFIC REQUIREMENTS (May be included in the above general requirements)

1. English and Speech
   9 units
   (a) Of the required nine (9) units at least three (3) units must be selected from (1) (a) and at least three (3) units from (2) (a). Any other classes offered in English and Speech will fulfill the remaining three (3) unit requirement, or others listed in group (3) below.

   (1) English
      (a) Engl 1a, 1, 42ab, 60, 64, 260, 264; Jnl 42ab; Sec T 10, 52, 252; Rdng 62, 262; Mgmt 63.

   (2) Speech
      (a) Spch 1, 2, 3, 4, 51.

   (3) Other courses
      (a) C Com 51; Mgmt 53; Rdng 1a, 1b, 1c; Wn St 21, 23a, 23b.

NOTE: Commencing with new students in September 1979 and applying to all students subsequent to the 1980-1981 academic year, a three unit oral communication course will be required.

2. Social Sciences and Behavioral Sciences
   9 units
   (a) Social Sciences
      6 units
      (1) American History and Politics
         Choose from one of the following three (3) unit courses in either Group I or Group II.


         Group II (Modern Concerns) Hist 4b, 6b*, 12b, 17b*, 18b*, 20b*, 24, 20b*, 33, 36, 38, 40; Pol S 3, 4, 22, 25, 52; Soc S 1, 10, 53b, 200a, 200b.

      (2) Other Social Science courses
         Any three (3) unit course, including those in Groups I and II above, in history, political science, economics, social science, Eth S 1 and Jnl 1.

NOTE 1: All students are required to take at least one of the courses listed in Groups I and II.

NOTE 2: Transfer students in order to meet state college and university code requirements in the United States Constitution, American History, and state and local government, are advised to take one course from Group I marked with an asterisk and one course from Group II marked with an asterisk.
4. Humanities . . . . . . . . . . . . . . . . . . . . . . . . . . 3 units
To be selected from Psychology, Sociology, Geography and Anthropology.

Anth 2, 3, 5a, 5b, 5c, 6, 7; Bus 58; Ch Dv 10, 13a, 13b; Ch St 38a, 38b, 38c; Cor A 7; Fam S 31; Geog 1b; H Ec 31; Pol S 22; Psych 1a, 1b, 10, 18, 22, 28, 30, 31, 32, 33, 34, 39a, 39b, 40, 41, 44, 45, 51, 52, 53a, 53b, 58; Soc 1, 2, 3a, 3b, 5, 7, 10, 20, 21, 22, 27, 28, 30, 36, 50; Sp Ed 41; Spch 32, 33; Wn St 20, 21, 22, 25, 27, 28, 34, 39a, 39b.

3. Natural Sciences . . . . . . . . . . . . . . . . . . . . . . . . 3 units
Life Sciences: Anat 1, 11, 43a, 43b, 54; Anth 1; Bact 2, 43; Biod 1a, 1b, 1c, 10, 10L, 11, 12, 14, 22, 53; HI Sc 1; Phys 1, 11.

Physical Sciences: Astr 1, 2, 50, 50L; Chem 1a, 1b, 2a, 5, 8, 9, 11, 12, 21, 26, 50a–f; Geol 1a, 1b, 6a, 6b, 7, 10, 10L, 11, 12, 52a, 52b; Metro 3; Phy S 10, 11, 50, 51, 51L, 55; Phys 1a, 1b, 1c, 1d, 2a, 2b, 11a, 11b, 50.

Other: Agron 1; An H 7, 41, 43; Cpr S 1; Entom 1; Envir 1; Fores 2; Hort 1; Nutr 10, 11; Med S 60, 60a, 60b, 62, 63; Rad T 4; Soils 1.

5. Mathematics or Logic . . . . . . . . . . . . . . . . . . . . 3 units
Math: A, B, C, D, 1, 2, 5, 6a, 6b, 6c, 6d, 15, 18, 22, 23, 31, 50, 52a, 52b, 53a, 53b, 53c, 53d, 54, 60, 200a, 200c, 200d, 250, 260.

Phil: 7, 8, 52.

Other: Bus 51, 53, 253; Psych 5; Com S 5, 18.
6. Health Education ........................................... 2 units

This requirement may be fulfilled by Health Education 1, 2, 3, or 50 or an approved course in Health Sciences or Nursing.

7. Physical Education ......................................... 2 units

This requirement is to be fulfilled by a minimum of two activity courses. (Students who have observed their 21st birthday or who have a medical excuse are exempt.)

8. Counseling .................................................. ½ unit

Agric 10; Arch 1; Couns 1, 2, 3, 5, 11, 12, 13, 48; Dnt A 50; H Crs 50; MA 50; Nurs 1; Orien 1, 2, 3, 11, 12, 13; Psych 48; Rad T 1; V Nrs 51.

9. Cross-Cultural Awareness

To meet this requirement a student must complete the equivalent of two credit units of work directly related to the goals of cross-cultural awareness, e.g., to become aware of and understand the contributions, problems, and influences of cultural groups in our society. The college hopes that the formal study of one or more of these cultural groups will help increase understanding, acceptance, and appreciation. Cultural groups are defined for this requirement as people of African, American Indian, Asian, Chicano, and Mexican ancestry and/or heritage and women. The following lists of courses have been designated by the departments of the college as completing or partially completing this requirement:

A. COMPLETES REQUIREMENT (2 units): Anth 5a, 5b, 5c, 7; Art 22, 24ab, 32a, 32b, 35, 36ab; Ch St 5b, 30a, 30b, 31a, 31b, 32a, 32b, 33a, 34, 35, 36, 36L, 39a-e, 45; Engl 21, 23a, 23b, 31a, 31b, 35a, 36; Eth S 1; Hist 18, 18a, 18b, 19a, 19b, 20a, 20b, 30a, 30b, 33, 36, 40; Music 23, 34, 40; Phil 32, 34a, 34b, 35; Pol S 22; Psych 28, 37, 39a-e; Soc S 53b; Soc 2, 21, 27, 30, 36, 36L; Span 1, 2, 3, 4, 5, 52a, 52b, 52c, 52d; Spch 32; Wn St 1 (2 units), 20, 21, 22, 23a, 23b, 24ab, 27, 28, 36ab, 37.

B. MEETS ONE-HALF REQUIREMENT (1 unit): Adm J 5; Anth 2; Art 24a, 24b, 36a, 36b; Bus 55; Ch St 38a, 38b, 38c; Geog 1b; Hist 8a, 8b, 17a, 17b, 45; Jrl 1; Psych 39a, 39b; Spch 31d, 33; Wn St 1 (1 unit), 24a, 24b, 25, 36a, 36b, 39a, 39b.

The Associate in Science may be awarded to students who have fulfilled all of the requirements for the Associate in Arts degree with a major of at least 18 units in the fields of Engineering, Physical and Biological Sciences, or occupational curriculums.
Universities and colleges prescribe their own standards of eligibility for transfer. Admission practices of four-year institutions are in process of change and students expecting to transfer after one or more semesters at Bakersfield College should be careful to check entrance requirements. Bakersfield College students who maintain high scholarship and who complete the required pattern of courses may expect to make a satisfactory transfer to the institution of their choice. To achieve junior standing at the California State Universities and Colleges or at the University of California, the student must earn a minimum of 60 units of acceptable credit.

Students who develop problems in the articulation of courses should contact the Dean of Educational Services (the Bakersfield College Articulation Officer) at the earliest possible date.

ELIGIBILITY FOR THE CALIFORNIA STATE UNIVERSITY AND COLLEGES: The student who was ineligible on the basis of his/her high school record may be admitted on the basis of obtaining a 2.0 grade point average in a minimum of 56 units of community college work designated as baccalaureate level.

The student who was eligible on the basis of his/her high school record may transfer at any time so long as his community college grade point average is 2.0 or better. A student may transfer a maximum of 70 community college units to a state university/college.

ELIGIBILITY FOR THE UNIVERSITY OF CALIFORNIA: The student who was ineligible for the University on the basis of his/her high school record may be admitted by achieving a grade point average of 2.4 or higher in a minimum of 56 units of courses acceptable for transfer.

The student who was eligible from high school may be admitted if he/she has an over-all grade-point average of at least 2.0 in all transfer courses attempted. A student may transfer a maximum of 70 community college units to the University (after 70 units acceptable toward degree have been earned, no further unit credit will be granted for community college courses).

Since many institutions require either the Scholastic Aptitude Test or the American College Testing Program, the following information may be useful in formulating transfer plans.

ELIGIBILITY FOR INDEPENDENT CALIFORNIA COLLEGES AND UNIVERSITIES

Students who transfer to independent colleges or universities find they are given academic credit for most, if not all, of their community college studies. Virtually all institutions give full credit for general education courses and usually for other courses designated for transfer by the community college.

Some colleges and universities stipulate a certain number of completed units before considering students eligible for transfer. Others do not and will accept students at any time. The requirements are outlined in the respective college catalogs, available upon request from the college’s Office of Admissions.

Independent institutions are generous in awarding credit. They invite students to make an appointment with their Office of Admissions in order to discuss transfer opportunities.

Financial Aid may be a primary factor in making it possible to attend an independent college. Most students who apply for financial aid are eligible and do receive financial aid packages. Currently some independent college students with full need receive as much as $5,000 a year for tuition, fees and room and board.

COLLEGE TRANSCRIPTS

Upon application by the student, a transcript of all work completed at Bakersfield College will be prepared and forwarded to any college or university to which the student is seeking admission. Each student may request two such transcripts without charge. A fee of $1.00 is charged for each additional transcript.

GENERAL EDUCATION REQUIREMENTS OF FOUR YEAR COLLEGES

On the following pages are the general education requirements for the California State University and Colleges. The general education requirements of the several branches of the University of California are so varied that it is wise to study the catalogue of the institution of transfer and to confer with a counselor regarding specific application of Bakersfield College courses toward the requirements.

The following programs may be available providing the deadline dates for application are met: California State Scholarships, California Tuition Grants, Basic Educational Opportunity Grants, California College Opportunity Grants and a variety of other grants and loans.
CALIFORNIA STATE UNIVERSITY AND COLLEGES –
GENERAL EDUCATION REQUIREMENTS

To be eligible for the bachelor’s degree from a state university or college, a student shall have completed a minimum of 40 units of general education (breadth requirements) of which at least 32 units shall be selected from the areas listed in sections I A through I D and of which at least eight units must be selected from section II.

I

A  NATURAL SCIENCES
B  SOCIAL SCIENCES
C  HUMANITIES
D  BASIC SUBJECTS

II  ADDITIONAL REQUIREMENTS

Although Bakersfield College has adopted a General Education pattern for certification to the California State Universities and Colleges, it should be noted that state universities/colleges may specify additional general education requirements beyond the 40 which a community college may certify. Students should consult the catalogue of the state college of their choice for specific general education information. In some instances, courses required for a given major may not be used for general education purposes even though they are included in the general education list of acceptable courses. In like manner courses used to satisfy the United States History and Government requirement in some cases may not be used for general education purposes. Students preparing for a teaching career should become aware of the general education requirements for specific credentials. Students are advised to consult their counselors for additional information.

State University/College General Education Breadth Requirements

I. Complete 32 units from the following categories.

A. NATURAL SCIENCES

<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phy 1a, 1b, 1c</td>
<td>6 units minimum</td>
</tr>
</tbody>
</table>

B. SOCIAL SCIENCES

<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc 1, 2, 3, 4</td>
<td>6 units minimum</td>
</tr>
</tbody>
</table>

C. HUMANITIES (6 units minimum): Choose at least three units from each of the following groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng 1b</td>
<td>6 units minimum</td>
</tr>
<tr>
<td>Hist 1, 2</td>
<td>6 units minimum</td>
</tr>
<tr>
<td>Art 1ab, 1cd</td>
<td>6 units minimum</td>
</tr>
<tr>
<td>Phil 1a, 1b</td>
<td>6 units minimum</td>
</tr>
</tbody>
</table>

D. BASIC SUBJECTS (9 units minimum): Engl 1a and one of the following.

<table>
<thead>
<tr>
<th>Subject Category</th>
<th>Course List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hist 9a, 9b</td>
<td>6 units minimum</td>
</tr>
<tr>
<td>Hist 10</td>
<td>6 units minimum</td>
</tr>
<tr>
<td>Hist 11</td>
<td>6 units minimum</td>
</tr>
</tbody>
</table>

II. Additional Requirements: Complete at least eight units including one course from Group 1, four courses from Group 2, and additional units from Groups 3 and/or 4 to total 40 units general education.

1. Health Education and First Aid: H Ed 1, 2, 3; Ph Ed 31a.
2. Physical Education (Two Semesters Required): Music 19mb; Ch St 32a, 32b, 32c, 32d, 32e, 32f, 32g; Psych 5.
3. Logic: Phil 7, 8.

NOTE: Commencing with new students in September 1979 and applying to all students subsequent to the 1980-1981 academic year, a three unit oral communication course will be required.
The following section is a compilation of course descriptions and programs of study offered at Bakersfield College.

CAREER PROGRAMS

Bakersfield College offers two-year career programs in a variety of fields leading to immediate employment in such occupational fields as agriculture, business, home economics, industry and public service. These courses may be counted toward higher degrees at certain state colleges provided the student continues with advanced study in the same field. Students are urged to plan a program which leads to graduation from the community college with the Associate in Arts degree.

PRE-PROFESSIONAL PROGRAMS

Bakersfield College also offers programs of study which lead to graduation from Bakersfield College and are intended to provide a basis for a student's entrance into a senior college or university. The required and recommended courses are listed in terms of the major field of study to be emphasized. The student who plans to graduate from Bakersfield College and wishes to transfer to another college or university has four requirements to fulfill. (1) He must clear up any entrance deficiencies in grades or subject matter if the senior college to which he expects to transfer requires it. (2) He must fulfill the general requirements of that senior college which are prescribed for all students. (3) He must fulfill his own pre-major requirements, i.e., the lower division requirements for his upper division major. (4) He must fulfill the general requirements of the local college. If he plans to transfer prior to graduation, he must fulfill the first requirement listed above and must make progress on the other three. He must do all these things with a satisfactory scholarship average. In presenting the following outline of programs of study and majors, the college assumes that the student will have completed a college preparatory program in high school. If the student enters a community college with deficiencies, he must arrange a program to remove such deficiency or deficiencies.

CERTIFICATE OF COMPLETION

The Certificate of Completion documents the satisfactory completion of training sponsored by Bakersfield College in a specific area of study. Departmental faculty will define requirements.

CERTIFICATE OF ACHIEVEMENT

A Certificate of Achievement is awarded for the completion of a formal instructional program, with a minimum of 24 units, which is designed to give the learner the skills, knowledge and attitudes required for a specific field of endeavor. Specific requirements in a subject matter area will be developed by departmental faculty and approved by the Curriculum Committee.

COURSE SEMESTER DESIGNATION

On the first line of each course description a designation attempts to indicate the semester in which a course is normally offered. These designations are "F" for fall semester, "S" for spring semester and 'SS' for summer session. Courses with no designation are infrequently offered or offered in the Continuing Education program. This indication is to be considered as a guide only and does not obligate the college to offer the course since scheduling of classes is determined by many variable factors.

Transfer Credit

The transferability of courses is determined by the senior institutions. Generally the University of California accepts courses numbered 1 through 49 and the California State Universities and Colleges accept courses so numbered as well as other courses which Bakersfield College has deemed appropriate for the baccalaureate degree. Students should consult with their counselors regarding admission and degree requirements for baccalaureate programs at specific senior institutions.

All courses designated by the symbol "●" are classified as baccalaureate level courses by Bakersfield College.
OPEN CLASSES

It is the policy of the Kern Community College District that, unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to District colleges and who meets such prerequisites as may be established pursuant to Chapter II, Division 2, Part VI, Title 5 of the California Administrative Code.

Bakersfield College complies with regulations of the laws prohibiting discrimination on the basis of sex.
OPPORTUNITIES AT BAKERSFIELD COLLEGE

For detailed information about Transfer, Career and Certificate Programs, see "Inside Bakersfield College: A Guide to Programs and Services." The guide is available in counseling offices, career centers and libraries.

ASSOCIATE DEGREE PROGRAMS (Career and Transfer):

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<th>ENGLISH</th>
<th>INDUSTRIAL EDUCATION</th>
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CERTIFICATES OF ACHIEVEMENT (a minimum of 24 units):

- Accounting Clerk
- Agriculture Business Management
- Animal Husbandry
- Apprenticeship
- Auto Body
- Auto Brakes and Wheel Alignment
- Auto Engine Overhaul
- Automatic Transmission
- Auto Tune-Up and Emission Control
- Broadcasting
- Cabinet Making
- Chicano Studies
- Clerical
- Cosmetology
- Dental Assisting
- Dietetic Assistant
- Dietetic Technician
- Early Childhood Development
- Electronics Technology
- Emergency Medical Technician
- Field Crop Production
- Fire Management
- Fire Science
- Forestry and Wildlife Management
- Horticulture
- Interior Design
- Institutional Housekeeping
- Journalism
- Legal Secretary
- Library Technology
- Machine Tool Metalworking
- Management
- Medical Assisting
- Microfilm Systems Technology
- Ornamental Horticulture
- Police Management
- Real Estate
- Secretarial
- School Food Service Management
- Sign Language
- Teacher Aide Specialist
- Welding
1. INTRODUCTION TO ADMINISTRATION OF JUSTICE (3 units)  
Three hours lecture.  
Prerequisite: None.  
The history and philosophy of administration of justice in America; recapitulation of system; identifying the various sub-systems, role expectations, and their inter-relationships; theories of crime, punishment, and rehabilitation; ethics, education and training for professionalism in the system.

2. CONCEPTS OF CRIMINAL LAW (3 units)  
Three hours lecture.  
Prerequisite: None.  
Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; legal research, study of case law, methodology and concepts of law as a social force.

3. LEGAL ASPECTS OF EVIDENCE (3 units)  
Three hours lecture.  
Prerequisite: None.  
Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.

4. THE JUSTICE SYSTEM (3 units)  
Three hours lecture.  
Prerequisite: None.  
An in-depth study of the role and responsibilities of each segment within the Administration of Justice System: law enforcement, judicial, corrections. Past, present and future exposure to each sub-system procedures from initial entry to final disposition and the relationship each segment maintains with its system members.

5. COMMUNITY RELATIONS (3 units)  
Three hours lecture.  
Prerequisite: None.  
An in-depth exploration of the roles of the Administration of Justice practitioners and their agencies. Through interaction and study the student will become aware of the interrelationships and role expectations among the various agencies and the public. Principal emphasis will be placed upon the professional image of the system of Justice Administration and the development of positive relationships between members of the system and the public. Also includes the role of the police in the community actions of the field police officer in the area of press relations, minority group relations and public information.

6. JUVENILE PROCEDURES (3 units)  
Three hours lecture.  
Prerequisite: None.  
The organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.

7. PROBLEMS OF PHYSICAL EVIDENCE (3 units)  
Three hours lecture and assigned field trips.  
Prerequisite: None.  
The collection, identification, preservation and transportation of physical evidence found at crime scenes. The use of photography, molds, casts and moulage masks to preserve evidence. Sketching and photography to locate evidence as found. Fingerprint examinations and preservation of prints. Footprints, tool mark impressions, identification of handwriting and typewriting, firearms identification. Importance of hair, fibers, dust and blood as evidence. Importance of laboratory examination and discussion of available facilities.

8. CRIMINAL INVESTIGATION (3 units)  
Three hours lecture.  
Prerequisite: None.  
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.

9. PATROL PROCEDURES (3 units)  
Three hours lecture.  
Prerequisite: None.  
Responsibilities, techniques and methods of police patrol.
15 ARREST, SEARCH AND SEIZURE (3 units)

Three hours lecture.
Prerequisite: None.
Admissibility of evidence and confessions; recent judicial decisions affecting law enforcement; the problem of reconciling individual rights and community interests in safety, security and the prevention of crime.

16 SUPERVISION AND LEADERSHIP (3 units)

Three hours lecture.
Prerequisite: None.
A consideration of the basic principles of supervision designed to develop future leaders in law enforcement.

17 TRAFFIC CONTROL (3 units)

Three hours lecture/discussion.
Prerequisite: None.
The historical development of traffic control and supervision and its relationship to the integration of engineering, enforcement and education efforts as they relate to the safe, convenient and economical transportation of persons and goods. Provided is a survey of fundamentals of traffic engineering, traffic directing, traffic law and enforcement and traffic accident investigation and the relative importance of each.

50 INTRODUCTION TO ORGANIZED CRIME (3 units)

Three hours lecture.
Prerequisite: None.
Introduces students to organized crime. Includes, but is not limited to, a history of organized crime (especially the Mafia) from its genesis to the present; its past and present structure; an overview of its operations, its sphere of influence into every facet of American life—social, political and financial; and what various law enforcement agencies are doing to combat organized crime.

53 INDUSTRIAL SECURITY (3 units)

Three hours lecture/discussion.
Prerequisite: None.

56 ADVANCED CRIMINAL INVESTIGATION (3 units)

Three hours lecture.
Prerequisite: None.
An advanced investigations course dealing with specific problems of the crime scene investigator. Primarily concerned with the problems of physical evidence at the scene of the robbery, burglary and homicide investigation.

57 RETAIL BUSINESS SECURITY (3 units)

Three hours lecture/discussion.
Prerequisite: None.
Designed primarily for key personnel of small and medium size retail businesses. It will cover methods of protection against crimes common to these businesses, and the laws pertaining to the apprehension and judicial processing of persons committing such crimes.

58a POLICE ADMINISTRATION (3 units)

Three hours lecture.
Prerequisite: None.
The organization and management of patrol, traffic, detective, juvenile and vice units; formulation of policy and procedure; rules and regulations; deployment; implementations of procedural and tactical planning; coordination of activity.

58b POLICE ADMINISTRATION (3 units)

Three hours lecture.
Prerequisite: None.
Examination of current problems and trends in police organization and management, planning and research, fiscal problems, administration of a comprehensive personnel program.

58c SUPERVISION COURSE (P.O.S.T.) (3 units)

Eighty hours lecture/discussion/practical application.
Prerequisite: ADMJ 68 or equivalent.
Covers basic concepts of police supervision and management, functions of police supervision and principles of training. Elements of supervision, leadership, motivation, communication, personnel evaluation and techniques of counseling are emphasized.

60 DEATH INVESTIGATION (3 units)

Three hours lecture/demonstration/discussion.
Prerequisite: None.
Designed primarily for law enforcement personnel, coroner investigators and Administration of Justice majors. Covers the various legal classifications of death; the proper procedures for handling and disposing of bodies; how, why autopsies are performed; and the identity of the agencies responsible for death investigations. Much broader but more basic than courses on homicide investigation.
61 EVIDENCE AND THE LABORATORY (3 units)

Three hours lecture/demonstration/discussion.
Prerequisite: None.
Introduction to the field of criminalistics; the role of the laboratory in the administration of justice system; degrees and limits of scientific conclusions; introduction to technical equipment; examination of characteristics, properties and means of analyzing categories of physical evidence. An orientation course for crime scene and laboratory technology.

65 FIREARMS (1 unit)

Three hours lecture and range practice.
Prerequisite: None.
The moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms; firing of the sidearms and shotgun.

66 ADVANCED FIREARMS (2 units per semester. Limit 6 units)

One hour lecture, three hours of laboratory and field trips as necessary.
Prerequisite: ADM J 65.
The student will learn to shoot combat course and will learn to safely handle and shoot pistols in close proximity of others. The student will also learn to safely reload ammunition. In addition, students will be required to attend police pistol matches.

67ab RESERVE OFFICERS' BASIC TRAINING (4 units)

One hundred-fifteen hours lecture and practical exercise.
Prerequisite: None.
Designed to prepare the trainee for the performance of reserve officers' duties. 67a covers forty hours (2 units) of professional ethics, discretionary decision making, arrest, search and seizure of firearms. 67b covers seventy-five hours (2 units) of professional orientation, community relations, communications, emergency care, custody, traffic control and patrol tactics and strategy. 67ab meets Level II and III Reserve Officers' training requirements pursuant to Penal Code Section 832.6.

67c RESERVE OFFICERS' BASIC TRAINING (3 units)

One hundred-fifteen hours lecture and practical exercises.
Prerequisite: None.
Designed to prepare the trainee for the performance of reserve officers' duties. Subjects covered are: Criminal evidence and law, criminal investigation, patrol procedures, physical fitness and defensive techniques, and vehicle operations. This course, coupled with ADM J 67ab, fulfills training requirements for Level I Reserve Officers in accordance with Penal Code 832.6 and P.O.S.T. regulations.

68 PEACE OFFICERS' BASIC TRAINING (10 units)

Forty hours per week for approximately thirteen weeks. (Two weeks of supervised field training and evaluators are included.)
Prerequisite: None. Detailed information may be secured from the Police Science Coordinator.
Training provides intensive basic instruction designed to prepare the trainee for the performance of peace officer's duties. The course covers introduction to law enforcement, administration of justice, criminal law, evidence and investigation; community-police relations, patrol procedures, traffic control, juvenile procedures, defensive tactics, firearms and first aid.

70a BASIC POLICE PHOTOGRAPHY (1 unit)

Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Teaches use of available photographic equipment in police assignments, what can be accomplished by proper photographic techniques in various police situations and how to use photographic results in both investigation and court situations.

70b FINGERPRINTING (2 units)

Forty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Covers history, classification and use of fingerprints.

70c LAW ENFORCEMENT VISUAL SURVEILLANCE (1.5 units)

Thirty-two hours instruction.
Prerequisite: None.
A self-improvement course designed to develop visual perception and performance and to provide understanding of the visual process and its importance in Police Science.

70d RULES OF EVIDENCE (1 unit)

Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Covers admissibility, weight, relevancy, materiality and competency of evidence; impeachment of a witness, judicial notice, burden of proof, presumption, hearsay, exception to the hearsay rule and other pertinent rules. Course designed for advanced officers.

70e CONSTITUTIONAL LAW (1 unit)

Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Covers history and development of the U.S. Constitution; the exclusionary rule; history and development of the California Constitution. Relationship of Constitutional guarantees to rules governing probable cause for arrest. Course designed for advanced officers.
SEARCH AND SEIZURE (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Deals with constitutional protection of fourth amendment; search of the person; search of premises; search of motor vehicle; what is not a search; current court decisions. Course designed for advanced officers.

LAWS OF INTERVIEWING (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Covers laws related to interviews with suspects; United States Supreme Court's interpretation; interviewing problems; post miranda; stop and inquire - stop and frisk. Course designed for advanced officers.

CURRENT LEGAL PROBLEMS (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Current legal problems based upon training films from prosecuting attorney of L.A. County. Classes given at law enforcement departments throughout Kern County.

POLICE REPORT WRITING (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
The writing of various types of police reports. Course is designed for the new officer and the experienced officer who may have trouble writing reports.

NARCOTICS INVESTIGATIONS (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Difficulties of narcotic enforcement; cost of drug abuse, juvenile involvement; restricted dangerous drugs; marijuana; opiates; synthetic narcotics; narcotic laws.

ADMINISTRATION OF JUSTICE (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Procedures of criminal justice; court systems both California and Federal Government; laws of arrest; pre-trial and trial procedures. Designed for upgrading currently employed police officers.

POLICE COMMUNITY RELATIONS (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Explores role of individual officer; the police image, crises areas, minority groups and law enforcement and the press.

PHYSICAL EVIDENCE TECHNOLOGY (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Covers commonly encountered types of physical evidence; laws of probability as applied to physical evidence, collection and preservation of evidence, and latest evidence technology.

HOMICIDE INVESTIGATION (2 units)
Forty hours lecture and practical problems.
Prerequisite: ADM J 68 or equivalent.
Covers law of evidence, arrests, search and seizure, court presentation. Designed for experienced officers.

CURRENT INVESTIGATIVE TECHNIQUE (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Designed for in-service law enforcement officers who are preparing to enter the investigation field or are currently investigators and wish to update their investigative expertise with current technological developments.

TRAFFIC ENFORCEMENT THEORY (1 unit)
Twenty hours instruction.
Prerequisite: ADM J 68 or equivalent.
Includes traffic enforcement, citation writing, accident investigation, hit and run follow-up, and vehicle code violations.

JAIL OPERATIONS (2-4 units)
Forty-eighty hours lecture and practical demonstration.
Prerequisite: None for eighty hour format; ADM J 68 for forty hour format. This P.O.S.T. certificated course is offered in either a forty or eighty hour format. The forty hour format consists of jail operations in terms of correctional history and philosophy, legal considerations, communications, security and emergency procedures, special inmates, and inmate attitudes, behavior, supervision, discipline, and correctional programs. The eighty hour format, in addition covers, report writing, evidence handling, judicial procedures, courtroom demeanor and defensive tactics. The forty hour format in conjunction with ADM J 68 or the eighty hour format satisfies Board of Corrections training requirements for jail personnel pursuant to its regulation Sub-chapter 4, Section 1020.
70r ADVANCED LATENT FINGERPRINTS (2 units) F S

Forty hours lecture/laboratory.
Prerequisite: Completion of ADM J 70b or its equivalent.
Designed to provide the student with practical experience in developing, photographing and lifting latent fingerprints. Consideration is given to special problems associated with latent prints, collection and comparison of latent prints at crime scenes, court preparation and expert testimony, and organization and planning of identification bureau and latent files.

70s SAFETY PERSONNEL FIRST AID (1 unit) F S

Eighteen hours of instruction and practical demonstration.
Prerequisite: None.
First aid and cardio-pulmonary resuscitation designed for those involved in public safety activities. Prepares the student to recognize and render assistance to the ill or injured in the following emergency situations: airway obstruction, respiratory arrest, cardiac arrest, severe bleeding, suspected or actual fractures, and life-threatening environmental circumstances. Also included are: emergency childbirth, care of suspected poisoning, care of emotionally disturbed, simple extrication from entrapment, and transportation of the ill and injured.

70t BATON TRAINING (1 unit)

Sixteen hours of lecture and practical demonstration.
Prerequisite: None.
This course is designed for those involved in various facets of security and law enforcement activities where the use of a baton may be necessary. It is designed to provide the student with the legal and moral aspects of baton use as a means of force, baton familiarization and use, and first aid techniques for baton injuries. Also provided is practical demonstration of stances, grips, critical target areas, defensive, control and arrest techniques of baton usage.

70u CHEMICAL AGENTS (0.5 unit)

Eight hours lecture/demonstration.
Prerequisite: None.
A comprehensive coverage of different types of chemical agents and their usage as a humane and effective means of handling limited number of enforcement control problems. Identification, characteristics, reactions, hazards as well as strategy for use are stressed. This course is designed to meet California Penal Code instructional requirements for possession and use of chemical agents by enforcement personnel of various classifications.

70v BOMB INVESTIGATION (1 unit) F S

Twenty-four hours lecture and practical demonstration.
Prerequisite: ADM J 68 or equivalent.
Designed to improve the knowledge and skills of those who may respond to bomb threats and incidents. Covers bombing problems in the United States, bomb data programs, explosive and incendiary devices, bomb threats and incidents, practical demonstrations of explosive and incendiary devices, and bomb crime scene investigation.

70w WEAPONLESS DEFENSE AND CONTROL (1 unit) F S

Twenty hours lecture and practical demonstration.
Prerequisite: None.
Designed for those involved in situations where physical resistance and personal attack may be encountered. Although established principles of hand-to-hand combat are used, this course is not patterned after any particular school of self-defense. Techniques are confined to relatively simple, practical, and effective ways of handling situations confronting the students, particularly law enforcement officers.

70x TRAFFIC ACCIDENT INVESTIGATION (2 units) F S

Forty hours lecture and practical demonstration.
Prerequisite: ADM J 68 or equivalent.
Assists the student in developing his/her ability to investigate traffic accidents and issue notices of violations for non-viewed misdemeanor and/or infraction offenses. Covers traffic accident reporting requirements, integrated records system, primary collision violations, investigation procedures, report writing and practical application.

70y AGENCY OPERATIONAL PROCEDURES (3–4 units) F S

Eighty/One Hundred and Twenty hours lecture and practical demonstration.
Prerequisite: ADM J 68 or its equivalent.
Covers departmental policies and procedures, governmental procedures, internal investigation, communications, general investigation procedures, preliminary investigation procedures, and juvenile procedure. It is designed to develop the student's ability and skills to perform departmental operational activities. The 120 hour course (4 units) involves expanded communications and investigative procedures as well as community relations and booking procedures.

70z FIELD TRAINING OFFICER (0.5 unit) F S

Eight hours lecture.
Prerequisite: ADM J 68 or equivalent.
Designed to prepare students for the performance of field training officer's duties. Content includes importance of the field training officer concept, leadership and decision making, field training officer's role, and training and evaluation techniques.
71a CIVIL PROCEDURES (2 units)

Forty hours lecture.
Prerequisite: ADM J 68 or equivalent.
Covers civil processes and procedures. Designed to give police officers, deputy sheriffs, marshals, constables, judicial officials and others performing civil duties knowledge which will help them be more effective in their job.

71bc ADVANCED OFFICER TRAINING (P.O.S.T.) (2 units—Limit 10 units) F S

Forty hours lecture and practical exercises.
Prerequisite: ADM J 68 or equivalent.
Designed to provide updating and refresher training for those who have an interest in law enforcement. A twenty to forty hour variable format is provided for flexibility in course content to meet identified needs. 71b covers twenty hours (1 unit) of recent law enforcement innovations, contemporary legal problems, police-community relations and crisis management. 71c covers twenty-four hours (1 unit) of general law enforcement subjects such as: domestic violence, child abuse, rape and criminal investigations, sex crimes, victimization, defense tactics, firearms, first-aid and defensive driving. 71b and 71c in combination is equivalent to the forty hour 71bc two-unit course.

72a–72b CALIFORNIA VEHICLE CODE (2–2 units) F

Three hours lecture.
Prerequisite: ADM J 68 or equivalent.

72c CALIFORNIA VEHICLE AND ADMINISTRATIVE CODES (2 units) F

Three hours per week.
Prerequisite: ADM J 68 or equivalent.
The California Administrative Code and related subjects as it applies to the duties performed by peace officers in the State of California.

73 GENERAL ORDERS AND POLICIES OF THE CALIFORNIA HIGHWAY PATROL (2 units)

Three hours lecture.
Prerequisite: ADM J 68 or equivalent.
The CHP Blue Book, Interpretation of Attorney General’s Opinions, standardization of enforcement application, interpretation and application of correct administrative procedures.

74ab FIREARMS AND ARREST, SEARCH AND SEIZURE (P.O.S.T.) (2 units)

Forty hours lecture.
Prerequisite: None.
Designed to satisfy the curriculum standards of the Commission on Peace Officers Standards and Training as required by Penal Code Section 832 for officers; includes laws of arrest, search and seizure, methods of arrest, discretionary decision making and where applicable firearms; mandatory for all peace officers who do not possess a basic certificate awarded by the Commission on Peace Officer Standards and Training. 74a covers firearms. 74b covers arrest, search and seizure. This course, with a slight change in emphasis is also designed to fulfill the training requirements for persons employed in private patrol as required by Business and Professions Code, SECT. 7514.1 and 7514.2.

75a EXERCISING THE POWERS TO ARREST (1 unit)

Twenty hours lecture.
Prerequisite: None.
Designed for private security personnel. Meets the requirements as mandated by the Department of Consumer Affairs of the State of California. Students will be instructed on laws of arrest and rules concerning search and seizure with emphasis placed on these as they affect private security. Students will also receive instruction in ethics, community relations and communication.

75b FIREARMS TRAINING FOR SECURITY PERSONNEL (1 unit)

Sixteen hours lecture/laboratory.
Prerequisite: None.
Designed for security personnel. Meets firearms training and qualification as mandated by the Bureau of Consumer Affairs of the State of California. Students will receive instruction in the legal, moral and ethical use of firearms while performing their duties. Students will also receive instruction in marksmanship and will be required to qualify in marksmanship. May be repeated for requalification purposes, as necessary.

77 SEARCH AND RESCUE (3 units)

Three hours lecture.
Prerequisite: None.
Provides a thorough understanding of the principles and methods of search and rescue operations for rescue from wells, mines and caves and for the rescue of persons lost in the local terrain. The basic functions of the overall search and rescue program are to train auxiliary personnel in the fundamental procedures required to carry out an efficient search and rescue program should an emergency arise.

78 DEFENSIVE TACTICS (2 units) S

Three hours lecture, demonstration and practice.
Prerequisite: None.
History and theory of self-defense as applied to law enforcement; techniques of control; searching and handcuffing. Emphasizes using control techniques which avoid injury to subject and policemen.
AGRICULTURE (AGRIC)

1 AGRICULTURAL BUSINESS MANAGEMENT (3 units)  
Three hours lecture.  
Prerequisite: None.  
Changes occurring in agriculture, careers in commercial agricultural businesses and public agricultural service agencies, development and growth of farm related industries, kinds of agricultural businesses, operational characteristics of commercial agricultural industries.

2 AGRICULTURAL MARKETING AND ECONOMICS (3 units)  
Three hours lecture.  
Prerequisite: None.  
Changes occurring in agriculture, careers in commercial agricultural businesses and public agricultural service agencies, development and growth of farm related industries, kinds of agricultural businesses, operational characteristics of commercial agricultural industries. Marketing orders and agreements, integration and contract farming; their implications and effects on farming and marketing institutions of California. Development, types and forms of farm related businesses; agricultural businesses considered from standpoint of primary functions, services and problems including such factors as business organization, records, information location, production, business with banks, labor and government emphasis on California farm related industries.

3 FARM ACCOUNTING AND MANAGEMENT (3 units)  
Two one-hour lectures per week and two hours lecture/laboratory.  
Prerequisite: None. AGRIC 1 or ECON 1 recommended.  
The student will understand farm accounting systems, farm records, budgets, income tax returns, reorganization of actual farms. Introduction to computers, reading computer print-outs, and approximately five hours practical training on computer operation.

10 INTRODUCTION TO CALIFORNIA AGRICULTURE (2 units)  
Two hours lecture per week.  
Prerequisite: None.  
An introductory course to agriculture at Bakersfield College which is highly recommended to incoming agriculture majors. A survey of the agriculture industry in California including careers, job requirements, agriculture terminology, and an orientation to the college curriculum. Satisfies the 0.5 unit counseling requirement for graduation from Bakersfield College.

20 FARM FOREMAN TRAINING (2 units)  
Four hours lecture per week for nine weeks.  
Prerequisite: Farm experience.  
An applied course in foremanship and work crew management. The role of farm labor in the agricultural enterprise. Training needs and methods. Qualifications and characteristics of foremen. Methods to increase worker productivity. Appraising worker effectiveness. Laws regulating farm labor. Agriculture 20 may be given separately from Agriculture 20L (laboratory).

20L FARM FOREMAN TRAINING LABORATORY (1 unit)  
Six hours laboratory and/or selected field trips per week for nine weeks.  
Prerequisite: Farm experience. AGRIC 20 (may be taken concurrently).  
An applied course in foremanship and work crew management. The role of farm labor in the agricultural enterprise. Training needs and methods. Qualifications and characteristics of foremen. Methods to increase worker productivity. Appraising worker effectiveness. Laws regulating farm labor.

30 PEST MANAGEMENT PRACTICES (3 units)  
Three hours lecture/demonstration. (Field Trips by arrangement.)  
Prerequisites: Entomology 1 or Crop Science 3.  
The student will become familiar with crop pests. A survey of the control practices for the major pests of California grown crops. Biological, cultural, pheromones, repellents, attractants, hormones, plant resistance, trapping, and chemical control are discussed as well as chemical safety laws and injury thresholds.

35 AGRICULTURE CHEMICALS (2 units)  
One hour lecture, two hour laboratory and/or selected field trips.  
Prerequisite: SOILS 1 and ENTOM 1 recommended.  
The nature, purpose, application and effectiveness of agriculture chemicals in commercial nursery operation. Federal, state and local safety regulations are stressed.

49 SPECIAL PROJECTS IN AGRICULTURE (1 unit. Limit 2 units)  
Three hours per week.  
Prerequisite: Two previous courses in AGRIC. (May be repeated one time.)  
The student will conduct a project individually or in a small group relating to one of the agricultural subjects. The project will be approved and directed by an agricultural instructor.

51 FARM MACHINERY (2 units)  
One hour lecture, three hours farm-shop and/or selected field trips.  
Prerequisite: None.  
Buying, repairing, adjusting and operating farm machinery used on farms in the Kern area. Familiarization with trends in farm mechanization and with Kern County machinery leaders.
52 FARM TRACTORS (2 units)
One hour lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
Preventive maintenance, buying, repairing, adjusting and operation of farm tractors. Familiarization with the common makes and types of farm tractors and operations of farm tractor dealers.

53 AGRICULTURE MECHANICS (2 units) F
One hour lecture and three hours laboratory.
Prerequisite: None.
Basic principles in drawing plans and making a bill of materials, repairing and sharpening tools, farm carpentry, painting, arc welding, acetylene welding and forging.

53b AGRICULTURE MECHANICS (2 units) S
One hour lecture and three hours laboratory.
Prerequisite: None.
Basic principles in cold metal skills, sheet metal, plumbing, concrete, electricity, farm tractors and farm machinery.

54a FARM WELDING – GAS (2 units) F
One hour lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
Principles and practices of gas welding as used on farms and in farm machinery repair shops.

54b FARM WELDING – ARC (2 units) F
One hour lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
Principles and practices of electric arc welding as used on farms and in farm machinery repair shops.

62 FARM SURVEYING (2 units) S
One hour lecture and two hours laboratory.
Prerequisite: None.
Use of surveying instruments and equipment. Calculation of cuts and fills used in land leveling. Laying out farm building foundations, contours, irrigation ditches, canals and measuring acreages.

64 CONSTRUCTION AND REPAIR (2 units) F S
One hour lecture and two hours laboratory.
Prerequisite: None.
Covers types, costs, characteristics and uses of construction and repair materials. The application of principles of operation and construction in repairing and building individually owned projects in the shop and on the farm.

65 HOME MECHANICS AND BASIC SHOP SKILLS (2 units) F
One hour lecture and two hours laboratory.
Prerequisite: None.
An unstructured course in which students work on their own projects or assigned projects. Instruction in shop equipment (both wood and metal); problems in design, repair and construction; includes maintenance and repair of small gas engines.

71 AGRICULTURAL PEST MANAGEMENT AND CONTROL (2 units)
Two hours lecture/demonstration per week. Field trips by arrangement.
Prerequisite: None.
The student will be able to identify crop pest problems and make recommendations for the safe use of the appropriate insecticide. The student will also understand the basic principles of biological pest control and other control alternatives for crop pests in Kern County.

72 LIVESTOCK DISEASES (1 unit) F
Two hours lecture per week for nine weeks.
Prerequisite: None.
A lecture series covering the symptoms and control of diseases of farm animals. The causes and control of animal diseases in relation to economic production and to health.

73 PRINCIPLES OF WATER AND IRRIGATION (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
A lecture series covering the following topics: soil moisture; responses of crops to soil moisture; soil moisture measurements and irrigation scheduling; water supplies; water application and irrigation methods; land preparation and drainage; special problems of quality, salinity, water penetration; irrigation studies of crops in Kern County.

74 SOILS (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
A lecture series providing a basic knowledge of soils and their characteristics; an understanding of the significance of fundamental soil properties, the relationship between soils and plants, principles of soil formation, soil types, soil texture and soil structure.

75 WEED CONTROL (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
A lecture series covering the study of weeds, their behavior and control.
76ad AGRICULTURAL CHEMICAL REVIEW (4 units)  
Sixty-eight hours lecture plus sixteen hours arranged. 
Prerequisite: None.  
A lecture series designed to familiarize personnel who handle agricultural chemicals with Agricultural Code Regulations. Includes registration, licensing, violations, financial responsibility, hazards and safety measures in handling and using agricultural chemicals.  
76a plant growth regulators, 76b defoliation and other harvest aids, 76c nematodes and nematicides, 76d herbicides and weed control.

76eh AGRICULTURAL CHEMICAL REVIEW (4 units)  
Sixty-eight hours lecture and sixteen hours arranged. 
Prerequisite: None.  
A lecture series designed to familiarize personnel who handle agricultural chemicals with Agricultural Code Regulations. Includes registration, licensing, violations, financial responsibility, hazards and safety measures in handling and using agricultural chemicals.  
76e plant physiology, 76f vertebrate pest control, 76g invertebrate pest control, 76h safety equipment and materials.

77 PEST CONTROL ADVISOR UPDATING (1 unit)  
A minimum of twenty-four hours of lecture/demonstration per unit.  
Prerequisite: None.  
Designed to meet the state legal requirements for upgrading and/or maintaining the student's pest control advisor license. Course offerings will be continuously updated to reflect the changing requirements of the state necessitated by new procedures, pesticides, controls, etc. Bakersfield College will maintain records of courses taken by a student and a certificate of completion will be issued upon completion of each offering. Courses will be numbered Agriculture 77a,b,c,d,... etc., so that a record of offerings is maintained. Recommended but not limited to licensed pest control advisors.

ANIMAL HUSBANDRY (AN H)

- **7 INTRODUCTION TO ANIMAL HUSBANDRY (3 units)**  
  Two hours lecture, three hours laboratory and/or selected field trips. One Saturday field trip required.  
  Prerequisite: None.  
  Emphasizes beef, dairy cattle, sheep and swine. Surveys livestock production, foreign and domestic. The distribution of meat-producing animals in the United States and factors involving the origin, characteristics and adaptations of important breeds. Designed to provide a basis for the profitable production of livestock.
- **8 JUDGING (2 units)**  
  One hour lecture, three hours laboratory and/or selected field trips.  
  Prerequisite: AN H 7.  
  A beginning course in judging market and breeding classes of dairy beef, sheep and swine.
- **9 SHEEP PRODUCTION (3 units)**  
  Two hours lecture and three hours laboratory.  
  Prerequisite: None.  
  A study of sheep production in the United States, California and Kern County. Breeding, breeds, lambing, selection, shearing and marketing. The commercial production of market lambs in Kern County will be studied.
- **10 HORSE PRODUCTION (3 units)**  
  Three hours lecture. One Saturday field trip required.  
  Prerequisite: None.  
  Status of the horse industry; types and breeds; selection, care and management of the light horse; their place and use in California and the United States.
- **11 ADVANCED HORSE PRODUCTION (3 units)**  
  Three hours lecture. One Saturday field trip required.  
  Prerequisite: AN H 10.  
  Management of breeding and training stable, nutrition, health, training and transportation of horses.
- **40 BEEF PRODUCTION (3 units)**  
  Three hours lecture and/or selected field trips.  
  Prerequisite: None.  
  Managing the cow herd; selecting replacement heifers and bulls; disease and reproduction problems; climatic adaptability, growth and fattening; quality of beef as affected by age, condition and type; planning livestock layouts, study of production costs, record-keeping, beef cattle marketing and trends in the cattle industry.
41 APPLIED ANIMAL NUTRITION (3 units)
Three hours lecture and/or selected field trips.
Prerequisite: AN H 7.
Fundamentals of feeds and feeding including constituents of foods, digestive systems of farm animals and their utilization of various foods. Problems of balancing rations.

42 FEEDLOT MANAGEMENT (3 units)
Two hours lecture and three hours laboratory.
Prerequisites: AN H 7 and 41.
An introduction to the feedlot business. All facets of the industry including: planning the layout, selecting equipment, purchasing cattle and feed disease control. Nutrition and marketing will be studied.

43 LIVESTOCK DISEASES (3 units)
Three hours lecture and/or selected field trips.
Prerequisite: None.
An introductory course in animal hygiene and sanitation. The causes, symptoms and prevention of common livestock diseases and parasites are emphasized.

45 ANATOMY AND PHYSIOLOGY OF FARM ANIMALS (3 units)
Three hours lecture. One Saturday field trip required.
Prerequisite: None.
An introductory course in anatomy and physiology of horses, cattle, swine, sheep and poultry.

50 BREEDING AND ARTIFICIAL INSEMINATION (3 units)
Two hours lecture and three hours laboratory.
Prerequisites: AN H 7 and 8.
Advanced study and practical application of breeding principles and artificial insemination of farm animals; the collection, processing and handling of semen; the job and responsibilities of the technician; the management and sanitation practices affecting reproductive efficiency.

70 ARTIFICIAL INSEMINATION OF CATTLE (1 unit)
Twenty-four hours lecture-demonstration.
Prerequisite: None.
The practical application of breeding principles and artificial insemination of cattle; the collection, processing and handling of semen; the job and responsibilities of the technician; and the management and sanitation practices affecting reproductive efficiency.

71 DISEASES OF BEEF AND DAIRY CATTLE (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
The causes, symptoms, prevention and recommended treatment of the common disease problems in beef and dairy cattle in Kern County.

72 DISEASES OF HORSES (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
Designed to meet the needs of the horse owner or stable manager. The course will be taught by a graduate veterinarian who is currently practicing veterinary medicine in Kern County. Content will include prevention, symptoms, control and treatment of diseases of horses.

73 INTRODUCTION TO PET ANIMAL HEALTH (1 unit)
Three hours lecture per week for nine weeks.
Prerequisite: None.
An introductory course in the feeding, breeding and health care of household pets. An evening class designed for the individual adult pet owner.

74 EQUINE NUTRITION (1 unit)
Two hours lecture per week for nine weeks
Prerequisite: None.
A series of lectures covering the various phases of horse nutrition. An evening class designed for the adult horse owner or trainer.

75 FITTING AND SHOWING BEEF CATTLE (1 unit)
One hour lecture and two hours laboratory for nine weeks.
Prerequisite: None.
Designed primarily for adult leaders and parents of 4-H, F.F.A. or Junior Farmer beef exhibitors. Covers the techniques of training, fitting and showing beef animals.

76 SELECTING, FEEDING, FITTING AND EXHIBITING STEERS AND LAMBS (2 units)
One hour lecture and two hours laboratory for twelve weeks.
Prerequisite: None.
This course is designed for adult leaders and parents of 4-H and FFA livestock exhibitors. It will cover the techniques of selecting feeders, feeding, fitting and exhibiting lambs and steers.
DISEASES OF SHEEP AND GOATS (1 unit)

Nine two-hour lectures.
Prerequisite: None.
The characteristics of the normal animal. The causes, symptoms, prevention and recommended treatment of the common disease problems in sheep and goats in Kern County.

SELECTING, FEEDING, FITTING AND EXHIBITING LAMBS (1 unit)

Three hours lecture/demonstration for six weeks. One Saturday morning session may be required.
Prerequisite: None.
Designed for adult leaders and parents of 4-H and FFA livestock exhibitors. It will cover the techniques of selecting feeders, feeding, fitting and exhibiting lambs.

CROP SCIENCE (CRP S)

1 PRINCIPLES OF CROP PRODUCTION (3 units)

Two hours lecture, three hours laboratory and/or selected field trips. One Saturday field trip required.
Prerequisite: None.
The student will understand the fundamental practices for field and vegetable crops: Basic botany, classification of plants, soils, fertilizers, irrigation, pest control, and crop rotation as well as specific practices for a crop such as sugar beets. (Formerly AGRON 1).

2 ALFALFA AND OTHER FORAGE CROPS (3 units)

Two hours lecture, three hours laboratory and/or selected field trips. One Saturday field trip required.
Prerequisite: None.
A study of the common forage crops: alfalfa, common pasture grasses and legumes. Varieties, adaptations, methods of handling and processing. Seeding and seed bed preparation. (Formerly AGRON 2).

3 WEED CONTROL (3 units)

Two hours lecture, three hours laboratory/demonstration and field trips by arrangement.
Prerequisite: None.
The student will be able to identify weeds common to the area and to know the various types of control, weed control chemicals and equipment for cultivated crops. (Formerly AGRON 3).

12 VEGETABLE PRODUCTION (3 units)

Two hours lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
The principles and practices of vegetable crop production. A study of the methods used in seeding, propagation and culture of vegetables and the application of the principles underlying vegetable production techniques. (Formerly AGRON 12).

14 COTTON PRODUCTION (3 units)

Two hours lecture and three hours laboratory and/or selected field trips.
Prerequisite: None.
History and world production, varieties and breeding; fertilization, disease and control, irrigating problems, insect control, defoliation, harvesting, classing and research studies. Visits to large-scale cotton farms, government cotton offices, marketing associations, experimental stations, cotton gins, oil mills and compresses. Emphasis on cotton production and marketing in Kern County. (Formerly AGRON 14).

20 BEEKEEPING (2 units)

One hour lecture, three hours laboratory/demonstration and field trips by arrangement.
Prerequisite: None.
The student will be able to perform the fundamental skills of beekeeping. He will handle bee colonies, collect and separate honey, and construct hives. The student will also understand the basic principles of queen selection and care, crop pollination practices, honey processing and marketing, and disease detection. (Formerly HORT 15).

26 ORGANIC GARDENING (2 units)

One hour lecture and three hours by arrangement.
Prerequisite: None.
Designed for students interested in gardening and its impact on the environment. Deals with soils, plant nutrition, composting, mulching, pest control, and general gardening without the use of synthetic chemicals. (Formerly HORT 26).

51 HOME VEGETABLE GARDENING (2 units)

One hour lecture, two hours laboratory/demonstration and field trips by arrangement.
Prerequisite: None.
The student will understand the basic principles involved in the production of home vegetables. Through this course the student will learn about soils, fertilizers, planting, composting, pest control, irrigation, harvesting, and the specific vegetables.

52 ADVANCED VEGETABLE GARDENING (3 units)

Three hours lecture/demonstration.
Prerequisite: None. CRP S 51 recommended.
The student will understand the techniques involved in growing specific vegetables in the backyard. The principles of organic gardening and backyard beekeeping will be discussed as they relate to vegetable gardening.
ENTOMOLOGY
(ENTOM) (ENTM)

1 APPLIED ENTOMOLOGY (3 units) F S
Two hours lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
An introduction to the classification, life history, morphology, physiology and ecology of insects, insecticides and their applications. Not open to students with credit in AGRIC 42.

FORESTRY
(FORES)

1 INTRODUCTION TO FORESTRY (3 units) S
Three hours lecture and/or related field trips.
Prerequisite: None.
Problems in forestry and forestry management. Includes study of forest diseases and insect problems.

2 NATURAL RESOURCES (3 units) F
Three hours lecture and/or related field trips.
Prerequisite: None.
A study of our natural resources and the conservation of those uncaptured natural stores which are useful to mankind. Resources covered are water, soil forests, grasslands, wild-animal life and minerals.

3 WILDLIFE MANAGEMENT (3 units) S
Three hours lecture.
Prerequisite: None.
Foundations of wildlife production. The identification, life histories and ecology of important wildlife species - fur bearers, water fowl and fish.

4 WILDLIFE LAW ENFORCEMENT (3 units) S
Three hours lecture.
Prerequisite: None.
A brief history of the development of wildlife law enforcement. State functions and jurisdiction; federal jurisdiction, federal wildlife laws, federal versus state jurisdiction; rights of the private citizen. Types of violations and the role of the law enforcement officer. The function of the officer, including arrests, preparation of evidence, interviewing and court appearances.

5 IDENTIFICATION OF CALIFORNIA WILDLIFE (3 units) F S
Three hours lecture.
Prerequisite: None.
A survey of game birds, fish and mammals of California and the Western United States. Characteristics of game animals and protected species. Practice in identifying animals in their environment. Emphasis on protecting species which are in danger of extinction.

6a FORESTRY SKILLS (3 units) F S
Three hours lecture; special assignments and field trips by arrangement.
The students will be able to identify and use the tools and equipment which will prepare them for entry into technician levels of forestry work.

7 WILDLAND FIRE MANAGEMENT (3 units)
Three hours lecture.
Prerequisites: FORES 1 or 2 (may be taken concurrently).
The student will understand the physical theories of wildland fire, the methodology of wildland fire suppression, and the use and maintenance of the tools required to suppress a wildland fire. (Formerly Resource Fire Control.)

HORTICULTURE
(HORT)

1 PRINCIPLES OF FRUIT GROWING (3 units) F
Two hours lecture, three hours laboratory and/or selected field trips.
Prerequisite: None.
A survey of the fruit growing industry including climatic influences, cultural practices and varieties.

2 PRINCIPLES OF FRUIT GROWING (3 units) S
Two hours lecture, three hours laboratory and/or selected field trips.
Prerequisite: HORT 1.
Principles of propagation, rootstocks, budding and grafting. Pruning and training young trees and vines. Pollination, harvesting and marketing of California fruits and nuts.

70 VITICULTURE - GRAPE GROWING (1 unit)
Two hours lecture per week for nine weeks.
Prerequisite: None.
Principles underlying pruning, training, grafting and propagation of vines; establishment of vineyards. Economic and scientific principles of recommended vineyard management practices including irrigation, mineral and carbohydrate nutrition, flower development and fruit set, virus and fungal diseases and insect control.
ORNAMENTAL HORTICULTURE (ORN H)

1 NURSERY PRACTICE (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Commercial nursery operations. Propagation, propagation media, nursery layout, seed identification, seedage, cutting, plant structure, rooting aids, transplanting, potting, balling, irrigation and pest control. Bedding plants, greenhouse plants, trees and shrubs. Field trips: (a) local nurseries, (b) Monrovia Nursery, (c) Hines Nursery, (d) Gallup and Stribling International. (Formerly HORT 5).

2 PLANT PROPAGATION (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Principles of sexual propagation (seeds) and asexual propagation (budding, grafting, cutting, layering, division and separation.) (Formerly HORT 7.)

3 ORNAMENTAL PLANT IDENTIFICATION AND MATERIALS (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Identification, habits of growth, culture and landscape use of ground covers, vines, shrubs, annuals and biennials adapted to gardens of the central valley of California. (Formerly HORT 8a.)

4 ORNAMENTAL SHRUB AND TREE IDENTIFICATION AND MATERIALS (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Identification; habits of growth culture and landscape use of shrubs and trees; adapted to home gardens, highways, parks, golf courses and commercial buildings of the central valley of California. (Formerly HORT 8b.)

5 TURFGRASS CULTURE AND MAINTENANCE (3 units)  
Two hours lecture and three hours laboratory and/or field trips.  
Prerequisite: None.  
The student will understand identification, habits of growth, culture and landscape uses of turfgrass in the state of California. The student will also learn the art of turf construction and maintenance of home lawns, golf greens, athletic fields and parks. Field trips: (a) local nurseries (b) local parks (c) Buena Vista Recreation Facility (d) Nunes Turf Farms (e) Cal/Turf Nurseries (f) selected golf courses in Los Angeles County.

7 LANDSCAPE DESIGN (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Plant materials in home garden design; identification, classification and functions of shrubs, trees, flowers, ground covers and vines. Planting and care of plants adaptable to the central valley of California. Elementary problems in landscape design. Elementary drawings of landscapes. Field trips to: (a) local nurseries, (b) Monrovia Nursery, (c) local institutions with outstanding landscape designs. (Formerly HORT 3.)

8 LANDSCAPE GARDENING (3 units)  
Two hours lecture, three hours laboratory.  
Prerequisite: None.  
Designed for students interested in the planning and maintenance of the home garden with emphasis on the location and maintenance of lawns, trees, shrubs, walks, driveways, patios, planters and other landscape structures. Field trips: (a) local nurseries, (b) Monrovia Nursery, (c) local institutions with outstanding landscape designs. (Formerly HORT 6.)

20 NURSERY PRACTICE (2 units)  
Two hours lecture and two hours laboratory.  
Prerequisite: None.  
Plant propagation, care and use of plant materials in the nursery business. Problems of soils, water, diseases and insect damage in nursery management practices. Lath house and greenhouse experience on campus. (Formerly HORT 4.)

25 COMMERCIAL NURSERY MANAGEMENT (3 units)  
Four hours lecture and six hours laboratory per week for nine weeks.  
Prerequisite: None.  
Principles of commercial nursery management as they relate to the Rose Industry. (Formerly HORT 25.)

30a TURF MANAGEMENT (2 units)  
One hour lecture and two hours laboratory.  
Prerequisite: None.  
Practice in turf construction, maintenance and management including golf greens, athletic fields and park lawns. (Formerly HORT 30a.)

30b TURF DESIGN (2 units)  
One hour lecture and two hours laboratory.  
Prerequisite: None.  
Practice in green design, construction and maintenance. Identification of compatible plant material and accessory structures and their relationship to turf, including golf greens, athletic fields and park lands. (Formerly HORT 30b.)
40 FLOWER ARRANGEMENT (2 units)
One hour lecture and two hours laboratory.
Prerequisite: None.
The conditioning and use of flowers and related materials in making flower arrangements; a study of the basic principles of design in relation to the use of flowers; typical seasonal arrangements; the planting of decorative indoor planters; simple corsage wiring; basic bowmaking and stemwrapping. (Formerly HORT 40.)

41 ADVANCED FLOWER ARRANGEMENT (2 units)
One hour lecture and two hours laboratory.
Prerequisite: ORN H 40.
The student will understand the conditioning and use of flowers and related materials in making flower arrangements; an advanced study of the principles of design in relation to the use of flowers; typical and atypical seasonal arrangements; designing and implementation of terrariums; the planting of decorative indoor planters; advanced corsage wiring; advanced bow-making and stemwrapping.

42 FLORAL SHOP OPERATION (2 units)
One hour lecture and two hours laboratory.
Prerequisite: ORN H 40 (Formerly HORT 41).
Designed to develop interest in the retail floral industry, an appreciation of the arts and skills necessary in the making of attractive and appropriate floral arrangements for seasonal occasions; application and practice techniques dealing with the retail store. (Formerly HORT 41.)

51a HOME GARDENING - NURSERY PRACTICE (2 units)
One hour lecture and two hours laboratory.
Prerequisite: None.
Plant propagation and care. Use of plant materials in the nursery business. Problems of soils, water, diseases and insect damage in nursery management practices. Landscaping of public grounds, parks, streets and residences. Lath house and greenhouse experience on campus. (Formerly HORT 51a.)

51b HOME GARDENING - NURSERY PRACTICE (2 units)
One hour lecture and two hours laboratory.
Prerequisite: None.
Nursery culture of dahlias, bulbs, turf, bedding plants and all landscaping factors. Identification of plant materials used in landscape of the central valley of California. (Formerly HORT 51b.)
71 PRUNING FOR THE GARDENER (1 unit)
One hour lecture and three hours laboratory and/or selected field trips per week for six weeks.
Prerequisite: None.
Equipment identification and safety, tool care, pruning principles and techniques, plant botany, pruning response, training and shaping of plants around the garden. (Formerly HORT 71.)

72 IRRIGATION SYSTEMS INSTALLATION AND MAINTENANCE FOR THE HOME GARDENER (1 unit)
One hour lecture and three hours laboratory and/or selected field trips per week for five weeks.
Prerequisite: None.
The installation and maintenance of irrigation systems for the lawns, shrubs, trees, annual bedding areas and special areas in the garden. (Formerly HORT 72.)

73 HOME LANDSCAPING INSTALLATION AND MAINTENANCE (1 unit)
One hour lecture and three hours laboratory and/or selected field trips per week for six weeks.
Prerequisite: None.
Designed for the homeowner interested in planning and maintenance of home garden area. Both the future homeowner and present homeowner will benefit from this understanding of the basic landscaping concepts in installation and maintenance. Emphasizes location and maintenance of lawns, tree shrubs, walks, driveways, patios, planters and other landscape structures. (Formerly HORT 73.)

74 PLANT PROPAGATION FOR THE HOME GARDENER (1 unit)
Three hours lecture/laboratory per week for nine weeks.
Prerequisite: None.
Designed primarily for the home gardener. It will cover basic concepts and techniques of asexual propagation of plants including budding, grafting and cuttings. (Formerly HORT 74.)

75a PLANT MAINTENANCE AND IDENTIFICATION (1.5 units)
Three hours lecture/demonstration for nine weeks.
Prerequisite: None.
The student will learn the identification of, habits of growth, propagation of, culture and landscape use of ground covers, vines and dwarf plants (1½-3') adapted and used in landscapes of the central valley of California.

75b PLANT MAINTENANCE AND IDENTIFICATION (1.5 units)
Three hours lecture/demonstration for nine weeks.
Prerequisite: None.
The student will learn the identification of, habits of growth, propagation of, culture and landscape use of small plants (4'-5') and medium plants (6'-8') adapted and used in landscapes of the central valley of California.

75c PLANT MAINTENANCE AND IDENTIFICATION (3 units)
Three hours lecture/demonstration.
Prerequisite: None.
The student will learn the identification of, habits of growth, propagation of, culture and landscape use of large plants (12'-25'), small trees (12'-25'), large trees (50' or more) and palms adapted and used in landscapes of the central valley of California.

76a BONSAI CULTURE (2 units)
Three hours lecture.
Prerequisite: None.
The student will learn the habits of growth, training techniques and the care and maintenance of the Bonsai plant.

76b ADVANCED BONSAI CULTURE (2 units)
Three hours lecture.
Prerequisite: None.
The student will learn advanced training techniques and care and maintenance of the Bonsai plant.

77a CARE AND MAINTENANCE OF TURF EQUIPMENT (1 unit)
One hour lecture, two hours laboratory for nine weeks.
Prerequisite: None.
The student will learn how to identify and correct problems encountered when servicing and caring for turf equipment.

88 GROUNDS KEEPING MAINTENANCE (2 units)
One hour lecture and three hours laboratory and/or selected field trips per week for 18 weeks.
Prerequisite: None.
The student will learn plant propagation and care; use of plant materials; turf construction, maintenance and management; pruning principles and techniques; identification, habits and growth of plants adapted to the central valley of California and safe operation of tools and machinery.
NATURAL RESOURCES MANAGEMENT (NRM)

1 RANGE MANAGEMENT (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisite: None.  
The student will understand the basic management and improvement practices required for successful utilization of rangeland resources. Emphasis will be on maintenance and improvement of proper range plant communities for each range region.

SOILS

1 INTRODUCTION TO SOIL SCIENCE (3 units)  
Two hours lecture, three hours laboratory and/or selected field trips.  
Prerequisite: None.  
Problems pertaining to the soil which are important in the profitable production of crops, physical properties of soils, fertilizers, crop rotation, erosion and alkali control, cultivation problems and irrigation.

2 AGRICULTURAL WATER (2 units)  
Two hours lecture.  
Prerequisite: None.  
A study of the use of water by agriculture to include hydrology, water supply, irrigation systems, and water quality. Students desiring laboratory and field experience should also enroll in the optional lab, SOILS 2L, concurrently.

2L AGRICULTURAL WATER LABORATORY (1 unit)  
Three hours per week of lab experiments and demonstrations.  
Prerequisite: SOILS 2 (preferably taken concurrently).  
Allows the student to use equipment and principles that are covered by the lecture course. There will also be field trips to water supply and distribution facilities.

3 PLANT NUTRITION AND FERTILIZERS (3 units)  
Three hours lecture.  
Prerequisite: SOILS 1.  
The student will be able to determine the nutritional requirements of plants and understand the methods used to meet those requirements.

4 IRRIGATION SYSTEMS (2 units)  
Two hours lecture.  
Prerequisite: None.  
The student will understand the principles and applications of pumps, water conveyance and water application. The student will be able to design and test various types of irrigation systems for both agriculture and landscape situations.

4L IRRIGATION SYSTEMS LAB (1 unit)  
Three hours laboratory.  
Prerequisite: SOILS 2 or 4 (preferably concurrently).  
The student will understand the principles and application of pumps, water conveyance and water application. The student will be able to design and test various types of irrigation systems for both agriculture and landscape situations.

5 RECLAMATION AND SOIL AMMENDMENTS (3 units)  
Two hours lecture.  
Prerequisite: None.  
The student will be able to identify and treat soil problems related to salinity, excess sodium, poor water penetration and excessive alkalinity.

6 PLANT ECOLOGY (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisites: SOILS 1, 2, BIOL 16.  
The student will understand the relationships between cultivated plants and plant disease, the climate, the soil-water system and environmental pollution.

52a SOILS FOR THE GARDENER (3 units)  
Three hours lecture and discussion.  
Prerequisite: None.  
A basic course in soils for the layman. Physical and chemical properties of soil, and their relationship to plant growth, will be emphasized. Principles of irrigation, fertilization, soil amendments and cultivation will be covered.

52b SOILS FOR THE GARDENER (3 units)  
Three hours lecture and discussion.  
Prerequisite: SOILS 52a.  
Covers principles of water application, water infiltration, fertilization, organic and chemical soil amendments and forms of cultivation for the home gardiner.

Air Conditioning Refrigeration
See Industrial Education
ANATOMY
(ANAT)

1 HUMAN ANATOMY (4 units)  F
Two hours lecture and six hours laboratory.
Prerequisite: Satisfactory completion of a high school biology course with a laboratory or one semester of college biology.
The essential features of human anatomy with special emphasis upon the needs of students majoring in biology, nursing, physical education and the medical sciences. Includes the microscopic and gross anatomy of all the systems: skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary.

HUMAN ANATOMY (4 units)  F S
Three hours lecture and three hours laboratory.
Prerequisite: An appropriate high school or college biology course with laboratory investigation.
Deals with the structure and function of the organ systems. Emphasizes the role of the mechanisms of organ system interaction and the effect of kinesethics on normal body function. Lectures on and investigations into human morphology. Special Emphasis for physical education majors.

ANATOMY AND PHYSIOLOGY (3-3 units)  F S
Two hours lecture and three hours laboratory.
Prerequisite: Enrollment in the Registered Nursing or Radiologic Technology program.
The structure and function of the human body; the skeleton, heart and circulatory systems: the processes of metabolism and digestion. The sequence of instruction complements instruction presented in correlated nursing courses and in the clinical situations. Throughout the course applications to personal and community health and hygiene are stressed.

ANTHROPOLOGY
(ANTH)

PHYSICAL ANTHROPOLOGY (3 units)  F S
Three hours lecture.
Prerequisite: None.
The biological evolution of man and the non-human primate with emphasis on the human fossil record. Races of modern man and human population genetics.

CULTURAL ANTHROPOLOGY (3 units)  F S SS
Three hours lecture.
Prerequisite: None.
A study of pre-literate societies which will provide a basis for better understanding of our more complex Western civilization. Content includes the nature of culture; comparison of several primitive cultures as to subsistence patterns, social organization, religion, language, the arts and personality development; investigation of the processes of culture change. How this information may be used in contact with underdeveloped peoples of the world today.

ARCHAEOLOGY (3 units)  F
Three hours lecture plus field trips to archaeological and Indian sites by arrangement.
Prerequisite: None.
A survey of the basic methods and techniques of archaeology. Emphasis is on American and Kern County archaeology with lecture topics including Europe, the Middle East. Experiments in reproducing Indian technology and crafts.

AFRICAN ANTHROPOLOGY (3 units)  SS
Three hours lecture and discussion.
Prerequisite: None.
The descriptive study of representative cultures of Sub-Saharan Africa. Analysis and systematic description of social structure including community, kinship and family, social institutions and organization, industries and arts in view of environment, historical development and functional interrelation. Includes methods of ethnologic research and evaluation as represented by readings in text.

PEOPLES OF MEXICO (3 units)
Three hours lecture.
Prerequisite: None.
A survey course of the representative Pre-Columbian cultures of Meso-America. Analysis and systematic description of the archaeological, ethnological and ethnographical theories of the development of Pre-Columbian peoples. Emphasis centers on an examination of the cultures of the Olmec, Maya, Toltec and Aztec periods of Meso-American pre-history. Not open to students with credit in CH ST 5b.
NORTH AMERICAN INDIANS (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A descriptive study of Indian culture and societies in North America. Discussion of proto-historic, historic and modern culture groups. Designed to provide an understanding and appreciation of the Indians of North America.

ARCHAEOLOGY FIELD STUDY (3-3 units. Limit 6 units) F S SS

One hour lecture and six hours laboratory.
Prerequisite: ANTH 3 (may be taken concurrently).
Site excavation and analysis of materials in both field and laboratory situations. Designed to provide students with actual application of archaeological techniques. Field trips. Weekends.

MAGIC, WITCHCRAFT AND RELIGION (3 units)

Three hours lecture.
Prerequisite: None.
Multi-cultural introduction into the concepts and uses of magic, witchcraft and the supernatural as a part of the religious belief systems of cultures around the world. Comparisons will be made between the rituals and practices of Western and non-Western cultures.

TOPICS IN ANTHROPOLOGY (0.5-2 units) F S SS

Minimum of eight hours per 0.5 unit. (Limit of 8 units.)
Prerequisite: None.
Selected topics in anthropology coincident with speakers, current developments in anthropology and field excursions related to existing department offerings.

ARCHITECTURE (ARCH)

1 INTRODUCTION TO ARCHITECTURE AND ENVIRONMENTAL DESIGN (1 unit) F

One hour lecture.
Prerequisite: None.
Familiarization with the professional fields of architecture, engineering, city planning, construction and landscape. Introduction to the design process and development as a basis for architectural analysis.

2 INTRODUCTION TO ARCHITECTURE AND ENVIRONMENTAL DESIGN (1 unit) S

Three hours laboratory per week.
Prerequisite: ARCH 1.
Introduction to basic design terminology, skills and processes developed in a two dimensional context as a foundation for more advanced problems and Architectural analysis.

6 MATERIALS OF CONSTRUCTION (2 units) S

Two hours lecture.
Prerequisite: None.
The use and application of building materials and the structural make-up of buildings. Field trips required.

10a FREEHAND DRAWING (1 unit) F

Three hours laboratory.
Prerequisite: None.
Exercises in drawing without mechanical aids. Field trips required.

10b FREEHAND DRAWING (1 unit) S

Three hours laboratory per week.
Prerequisite: ARCH 10a.
Exercises in drawing without mechanical aids. Field trips required.

11 INTRODUCTION TO DRAWING AND PERSPECTIVE (3 units) F

Six hours lecture and laboratory.
Prerequisites: Two years of high school mechanical or architectural drawing, or IN DR 30a, and MATH B or equivalent.
Basic techniques used in graphic communication. Orthographic and isometric projection. Mechanical perspective, shades and shadows.
• 12 BASIC GRAPHICS (3 units)  
Six hours lecture and laboratory.  
Prerequisites: ARCH 10a, 11.  
Drawing as a communication tool in the environmental design fields. Exercises to develop basic skills and speed in the representation of ideas. Use of various drawing media. (Formerly ARCH 45).

• 21 ENVIRONMENTAL DESIGN FUNDAMENTALS I (4 units)  
One hour lecture and nine hours laboratory.  
Prerequisites: ARCH 2, 10b, 12.  
Elements of visual perception. Theories of environmental design; program development; analytic techniques and problem solving methodologies. Behavioral and social implications of environmental design decisions. Projects in the environmental context.

• 22 ENVIRONMENTAL DESIGN FUNDAMENTALS II (4 units)  
One hour lecture and nine hours laboratory.  
Prerequisite: ARCH 21.  
Elements of visual perception. Theories of environmental design; program development; analytic techniques and problem solving methodologies. Behavioral and social implications of environmental design decisions. Projects in the environmental context. Field trip to Los Angeles required.

• 25 STRENGTH OF MATERIALS I (2 units)  
Two hours lecture.  
Prerequisites: MATH 6a, PHYSC 1a.  
Loads on buildings, force systems, properties of plane areas, equilibrium of building elements, force analysis of beam and truss structures; shear and moment diagrams; introduction to arch and cable structures; problems in building structures.

• 26 STRENGTH OF MATERIALS II (2 units)  
Two hours lecture.  
Prerequisite: ARCH 25 (may be taken concurrently).  
Introduction to properties of materials; deviations of equations for axial, bending, and shear stress and strain in structural members of homogeneous materials; signing of members, combined stresses; structural sizing members of non-homogeneous materials; introduction to column behavior; biaxial stress conditions; principal stresses; problems in building structures.

• 31 ARCHITECTURAL PRACTICE I (3 units)  
One hour lecture and six hours laboratory.  
Prerequisite: ARCH 6.  
Introduction to construction techniques and working drawings. Theory and application of laws and codes affecting buildings. Working drawings as communication instruments. Field trips required.

• 31L LIGHT FRAME MODEL CONSTRUCTION (1 unit)  
Three hours laboratory.  
Prerequisite: ARCH 6.  
To further develop the construction techniques and methods required in the building of light wood-frame structures and various types of presentation models used in the architectural field.

• 32 ARCHITECTURAL PRACTICE II (3 units)  
Six hours lecture and laboratory.  
Prerequisite: ARCH 31.  
Introduction to construction techniques and working drawings. Theory and application of laws and codes affecting buildings. Working drawings as communication instruments. Field trips required.

• 41 INTRODUCTION TO URBAN ENVIRONMENT I (2 units)  
Two hours lecture.  
Prerequisite: None. Recommended for all majors.  
History and analysis of social and technological factors which have influenced the physical growth of cities. Philosophical approaches. Problems of growth and the development of various theories of city planning.

• 42 INTRODUCTION TO URBAN ENVIRONMENT II (2 units)  
Two hours lecture.  
Prerequisite: None.  
History and analysis of social and technological factors which have influenced the physical growth of cities. Philosophical approaches. Problems of growth and the development of various theories of city planning.

• 45 BUILDING CODES (3 units)  
Three hours lecture.  
Prerequisite: None.  
Study of the Uniform Building Codes, local codes and related ordinances. Fundamental structural concepts involved in code work, code interpretation and enforcement. Field trips.

• 46 BUILDING & RELATED CODES (3 units)  
Three hours lecture.  
Prerequisite: None.  
Study of the Uniform Building, Plumbing, Mechanical and Electrical Codes. A companion course to ARCH 45 offering a greater in-depth study of the various codes which make up the Code of Building Regulations.
ART

2ab BASIC DRAWING (3 units)
Six hours lecture and studio.
Prerequisite: None.
A study of realistic, abstract and non-objective drawing as related to form perception. Perspective drawing. Understanding of art elements in composition and expression.

2cd ADVANCED DRAWING (3 units)
Six hours lecture and studio.
Prerequisite: Grade of "C" or higher in ART 2ab.
A further study of realistic, abstract and non-objective drawing as related to form perception. Advanced projects in basic drawing techniques.

2ef FIGURE DRAWING (3 units)
Six hours lecture and studio.
Prerequisite: None.
Models posed in rapid and extended studies. Use of pencil, chalk, brush and ink, conte crayon, litho crayon, charcoal and gouache. (Formerly ART 6ab.)

2gh ADVANCED FIGURE DRAWING (3 units)
Six hours lecture and studio.
Prerequisite: A grade of "C" or higher in ART 2ef.
Advanced study in exploration of the figure using posed models as subject matter. (Formerly ART 6cd.)

2ij ADVANCED PROJECTS IN DRAWING (3 units)
Six hours lecture-laboratory per week.
Prerequisite: ART 2cd or 2gh with a grade of "C" or higher.
A continued study of drawing involving use of wet as well as dry media and color as well as black and white. The philosophical implications of drawing as well as purely aesthetic concerns will be emphasized and deeper analysis of composition and style in that context will be the main objective of the course. (Formerly ART 2ef.)

3ab BASIC DESIGN (3 units)
Six hours lecture and studio.
Prerequisite: None.
A course in the basic principles of design. Problems of the visual field: dark and light, color, texture, balance and size relationships. Emphasis is on two-dimensional work.

3cd THREE DIMENSIONAL DESIGN (3 units)
Six hours lecture and laboratory.
Prerequisite: None.
A basic study of the visual elements as they relate to three dimensional design.

3ef FUNDAMENTALS OF COLOR (3 units)
Six hours lecture and studio.
Prerequisite: None.
A course in the fundamentals of color for artists and designers. The Munsell theory and other color systems will be studied with applications for the best methods of mixing and relating colors. (Formerly ART 12.)
4ab BASIC PAINTING — ACRYLIC MEDIA (3 units) F SS
4a—4b (1.5—1.5) equivalent to 4ab.
Six hours lecture and studio.
Prerequisite: A grade of "C" or higher in ART 2ab.
An introduction to pictorial composition using various techniques, materials and acrylic media.

4cd ADVANCED PAINTING — ACRYLIC MEDIA (3 units) F SS
4c—4d (1.5—1.5) equivalent to 4cd.
Six hours lecture and studio.
Prerequisite: ART 4ab.
Advanced problems in acrylic painting.

4ef WATER COLOR PAINTING (3 units) F
4e—4f (1.5—1.5) equivalent to 4ef.
Six hours lecture and studio.
Prerequisite: A grade of "C" or higher in ART 2ab.
A course in techniques of still life, landscape and imaginative painting as related to the problems of water color. (Formerly ART 9ab.)

5ab INTRODUCTION TO OIL PAINTING (3 units) F S
5a—5b (1.5—1.5) equivalent to ART 5ab.
Six hours lecture and studio.
Prerequisite: None.
An introduction to the techniques and materials of oil painting.

5cd ADVANCED OIL PAINTING (3 units) F S
5c—5d (1.5—1.5) equivalent to 5cd.
Six hours lecture and studio.
Prerequisite: ART 5ab.
Advanced problems in painting with emphasis upon creative approaches to handling the medium, with concentration upon exploring the techniques used in contemporary painting.

5ef FIGURE PAINTING (3 units) F S
5e—5f (1.5—1.5) equivalent to 5ef.
Six hours lecture and studio.
Prerequisite: ART 2ab or 2ef.
The student will learn to accurately paint the human form and be able to place the figure in harmony with its environment. Most work will be done in color and some in black and white. Oil painting with brushes as well as other techniques will be studied. (Formerly ART 17.)

6ab CERAMICS — HANDBUILDING (3 units) F S
6a—6b (1.5—1.5) equivalent to 6ab.
Six hours lecture and studio.
Prerequisite: None.
Handbuilding is the oldest form of ceramic art. Includes the fundamentals of hand-built ceramics. The students should gain insights into the ancient and the modern methods of producing ceramic pieces without the use of a potters wheel. (Formerly ART 18ab.)

6cd CERAMICS — ADVANCED HANDBUILDING (3 units) F S
6c—6d (1.5—1.5) equivalent to 6cd.
Six hours lecture and studio.
Prerequisite: ART 6ab.
Deals in the more sophisticated techniques of handbuilt ceramics. Students will work with a variety of clay bodies and will be introduced to the process of making and testing glazes. Students will work with the raku method and will also participate in a primitive kiln building and firing. (Formerly ART 18cd.)

7ab CERAMICS — BASIC (3 units) F S SS
7a—7b (1.5—1.5) equivalent to 7ab.
Six hours lecture and studio.
Prerequisite: None.
Designed to acquaint the student with basic ceramic materials and techniques such as wheel throwing, hand building, glaze application and design techniques.

7cd CERAMICS — INTERMEDIATE (3 units) F S
7c—7d (1.5—1.5) equivalent to 7cd.
Six hours lecture and studio.
Prerequisite: ART 7ab.
Designed to allow advanced work in basic techniques. Glaze calculation and kiln firing are explored.

7ef CERAMICS — ADVANCED (3 units) F S SS
7e—7f (1.5—1.5) equivalent to 7ef.
Six hours lecture and studio.
Prerequisite: ART 7ed.
Designed to offer the student an opportunity to further develop basic ceramic skills. Advanced work in glaze calculations, kiln firing and clay constructions. (Formerly ART 27ab.)

7gh CERAMICS — ADVANCED (3 units) F S SS
7g—7h (1.5—1.5) equivalent to 7gh.
Six hours lecture and studio.
Prerequisite: ART 7ef.
Designed to offer the student special problems in advanced ceramic techniques. Individual research problems are explored such as kiln building, wheel building and production techniques. (Formerly ART 27cd.)
8ab JEWELRY – FABRICATION (3 units)  
8a–8b (1.5–1.5) equivalent to 8ab.  
Six hours lecture and studio.  
Prerequisite: None.  
Fundamental techniques and processes involved in the construction and fabrication of 
jewelry and related articles.

8cd JEWELRY – FABRICATION LOST WAX (3 units)  
8c–8d (1.5–1.5) equivalent to 8cd.  
Six hours lecture and studio.  
Prerequisite: ART 8ab.  
A continuation of beginning jewelry with emphasis on casting and lost wax process. 
Individual projects are encouraged for all students stressing imaginative and creative 
interests.

8ef ADVANCED JEWELRY (3 units)  
8e–8f (1.5–1.5) equivalent to 8ef.  
Six hours lecture and laboratory.  
Prerequisite: ART 8cd.  
A continuation of ART 8cd with emphasis on electroforming, electroplating and surface 
embellishment. Individual projects are encouraged for all students stressing imaginative 
and creative interests. (Formerly ART 28ab.)

9ab GLASS DESIGN – GLASS BLOWING (3 units)  
9a–9b (1.5–1.5) equivalent to 9ab.  
Two hours lecture and demonstration and four hours laboratory.  
Prerequisite: None.  
Designed to acquaint students with basic techniques of hand blown glass and to use glass 
as an expressive art medium. (Formerly ART 28cd.)

9cd ADVANCED GLASS DESIGN (3 units)  
9c–9d (1.5–1.5) equivalent to 9cd.  
Two hours lecture and demonstration and four hours laboratory.  
Prerequisite: ART 9ab.  
Advanced techniques of off hand glass blowing. Gives students extended exploration in 
the medium of art glass. Includes more advanced blowing techniques, exploration of 
color, decoration, form, and studio construction. (Formerly ART 15cd.)

10ab OFF LOOM WEAVING (3 units)  
10a–10b (1.5–1.5) equivalent to 10ab.  
Two hours lecture and four hours laboratory.  
Prerequisite: None.  
The student will be able to construct simple (non-commercial or off-loom) weaving 
devices of several types; to prepare various fibers, and to design and weave two and three 
dimensional art forms. (Formerly ART 20ab.)

11ab SCULPTURE (3 units)  
11a–11b (1.5–1.5) equivalent to 11ab.  
Six hours lecture and studio.  
Prerequisite: None.  
An exploration of the three dimensional materials and their relationship to design and 
form. Creative expression is explored through the manipulations of clay, wood, metal and 
plaster.

11cd ADVANCED SCULPTURE (3 units)  
11c–11d (1.5–1.5) equivalent to 11cd.  
Six hours lecture and studio.  
Prerequisite: ART 11ab.  
Advanced study in the exploration of form, using clay, plaster, wood and wax for bronze 
casting.

11ef TECHNIQUES IN BRONZE CASTING (3 units)  
11e–11f (1.5–1.5) equivalent to 11ef.  
Six hours lecture and studio lab per week.  
Prerequisite: None.  
The student will be able to produce a bronze casting, using the “lost wax” method of 
casting. The student will be able to fabricate a wax pattern, sprue the pattern and invest 
the pattern. After producing the cast, the student will be able to clean the finished 
bronze. (Formerly ART 19ab.)

11gh ADVANCED TECHNIQUES IN BRONZE CASTING (3 units)  
11g–11h (1.5–1.5) equivalent to 11gh.  
Six hours lecture and studio lab per week.  
Prerequisite: ART 11ef.  
A continuation of 11ef. The student will be able to patina and mount the casting through 
a variety of possible methods. (Formerly ART 19cd.)

12ab FIGURE SCULPTURING (3 units)  
12a–12b (1.5–1.5) equivalent to 12ab.  
Six hours lecture and studio.  
Prerequisite: None.  
Emphasis on learning to see form. Work from the nude model in clay and plaster.
• 12cd ADVANCED FIGURE SCULPTURE (3 units)
12c–12d (1.5–1.5) equivalent to 12cd.
Six hours per week.
Prerequisite: None.
Advanced work in clay and plaster using the nude model.

• 13ab BEGINNING PRINT MAKING: SILK SCREEN (3 units) F S
13a–13b (1.5–1.5) equivalent to 13ab.
Six hours lecture and studio.
Prerequisite: None.
An exploration of the expressive potential of the fine art print through the knowledge gained in the printing techniques of serigraphy and relief printing.

• 13cd BEGINNING PRINTMAKING: LITHOGRAPHY AND INTAGLIO (3 units) F S
13c–13d (1.5–1.5) equivalent to 13cd.
Six hours lecture and studio.
Prerequisite: None.
An exploration of the expressive potential of the fine art print through the knowledge gained in printing techniques of lithography and intaglio.

• 13ef ADVANCED PRINTMAKING (3 units)
13e–13f (1.5–1.5) equivalent to 13ef.
Six hours lecture and laboratory.
Prerequisite: ART 13cd.
A continuation of ART 13cd with emphasis on multi-color plates and exploratory techniques. (Formerly ART 23ab.)

• 13gh ADVANCED PRINTMAKING (3 units)
13g–13h (1.5–1.5) equivalent to 13gh.
Six hours lecture and laboratory.
Prerequisite: ART 13ef.
A continuation of ART 13ef with emphasis on independent study special problems and exhibition procedures.

• 14ab LETTERING (3 units)
Six hours lecture and studio.
Prerequisite: None.
A study of basic letter forms. Also includes creative lettering design and poster design. Introduction to lettering for advertising and reproductions. (Formerly ART 14.)

• 14cd GRAPHIC DRAWING (3 units) F S
Six hours lecture and studio.
Prerequisite: None.
The student will learn to accurately draw such objects as cars, appliances, utensils, dishes, room interiors and be able to relate these to people in correct scale. Most work will be done in line and some projects in color. Both free-hand and instrument drawing will be studied. (Formerly ART 43.)

• 14ef GRAPHIC ILLUSTRATION (3 units)
Six hours lecture and studio.
Prerequisite: None.
Illustration for fiction, science fiction, historical, children's stories, medical and cartooning. Emphasis on research for authenticity as well as creative and original approaches in presentation and technique: Some not given every semester. Consideration given to production methods. (Formerly ART 44.)

• 15ab GRAPHIC DESIGN (3 units)
Six hours lecture and studio.
Prerequisite: None.
A study of the tools, materials and techniques which are incorporated into the development of printed communications. The designing of graphics with production methods in mind. (Formerly ART 40.)

• 15cd ADVERTISING GRAPHICS (3 units)
Six hours lecture and studio.
Prerequisite: None.
A study of areas translatable to symbolic representation and the methods for organizing such visual images for maximum communication. Emphasis on design, integration of image with type, and unusualness of approach. (Formerly ART 41.)

• 15ef GRAPHIC TECHNIQUES (3 units) F S
Six hours lecture and studio.
Prerequisite: None.
A basic course in the rendering of people, objects, products, and environments in various media such as water color, casein, acrylic, ink, dyes, etc. and in experimental ways such as tearing or wrinkling paper, using cotton, toothbrushes, sticks, straw, or fingers for applying media, and mixing paints with sand, plaster, or glue, etc. (Formerly ART 42.)

• 16ab FILM MAKING (3 units) F S
Six hours lecture and studio.
Prerequisite: None.
A study of motion picture equipment, cinema techniques, script development and synchronization of sound and film. It is an elementary course starting with the basic ideas of film, script and sound and providing for individual and group experiences in cinematography. (Formerly ART 38a.)
16cd ADVANCED FILM MAKING (3 units)  
Six hours lecture and studio.  
Prerequisite: ART 16ab.  
A continuation of ART 16ab with the student encouraged to determine his own direction and relationship to the medium. Primary emphasis will be on the development of the individual as an independent, creative filmmaker. (Formerly ART 38b.)

17ab ELEMENTARY PHOTOGRAPHY (3 units)  
Six hours lecture and studio.  
Prerequisite: None.  
The student will understand the basic principles of cameras, optics, light, film and development, exposure and exposure meters, and enlarging. The student will complete photographic assignments which will emphasize photographic quality, exploration of the photographer's environment, and personal expression. A suitable adjustable camera is recommended. (Formerly ART 33a.)

17cd INTERMEDIATE PHOTOGRAPHY (3 units)  
Six hours lecture and studio.  
Prerequisite: ART 17ab or equivalent.  
The student will understand more advanced concepts and techniques of photography. The student will complete assignments that will emphasize the refinement of technique and personal expression. A suitable adjustable camera is required. (Formerly ART 33b.)

17ef COLOR PHOTOGRAPHY (3 units)  
Six hours lecture and studio.  
Prerequisite: ART 17ab.  
Problems in color processing, color reversal and color negative. Color printing from color negatives. Class discussion of work. Color balancing calculations. Problems in black and white photography. A suitable camera of reasonable quality is required. Student may pursue any line of specialized photography with approval of instructor. (Formerly ART 34a.)

17gh ADVANCED PHOTOGRAPHY (3 units)  
Six hours lecture and studio.  
Prerequisite: ART 17cd or 17ef.  
Designed to give the student an opportunity to pursue photography in an area of specialized interest. Advanced work is done in camera technique, dark room practices, lighting and color. The student emphasizes work in an area of personal interest. The class will involve itself in a joint photography project of its choosing. Technically proficient work of a creative and original nature is expected. A suitable camera is required. (Formerly ART 34b.)

17ij PHOTOGRAPHIC PROBLEMS (3 units)  
17i–17j (1.5–1.5) equivalent to 17ij.  
Six hours lecture and studio.  
Prerequisite: Some experience in photography.  
A suitable adjustable camera is required and a light meter is recommended. An advanced course designed to strengthen the student's technical skills and involve him in various visual photographic problems directed toward creativity and nonverbal communication. (Formerly ART 36ab.)

18ab INDIVIDUAL PROJECTS IN PHOTOGRAPHY (2 units)  
18a–18b (1–1) equivalent to 18ab.  
One hour lecture and three hours studio.  
Prerequisite: Permission of instructor.  
Selected students are given special instruction in preparation for professional experience. Strengthening of graphic visualization and technical competence through challenging individual assignments. The content is not structured in the manner of beginning and advanced photography courses. (Formerly ART 35.)

29 SPECIAL STUDIES IN ART (1–3 units. Limit 9 units.)  
Three to nine hours per week lecture-lab.  
Allows students, with permission of instructor and completion of beginning level courses in an Art area, to engage in selected advanced projects. Class content and unit credit to be determined by instructor and student. (Formerly ART 30.)

30a HISTORY OF ANCIENT MEDITERRANEAN ART (3 units)  
Three hours lecture.  
Prerequisite: None.  
A survey of the architecture, sculpture and painting of the ancient Mediterranean area from the Old Stone Age to the time of Constantine the Great. (Formerly ART 1a.)

30b HISTORY OF EUROPEAN ART TO 1500 (3 units)  
Three hours lecture.  
Prerequisite: None.  
The student will acquire a knowledge of the styles and cultural contexts of the art and architecture of Western Europe and the Byzantine Empire from the time of the catacombs in Rome to the Renaissance in Italy. (Formerly ART 1b.)
- 30c HISTORY OF EUROPEAN ART SINCE 1500 (3 units) F S

Three hours lecture.
Prerequisite: None.
The student will acquire a knowledge of the styles and cultural contexts of the art and architecture of Western Europe from the Fifteenth Century in the Netherlands to the present day. (Formerly ART 1c.)

- 32a MEXICAN ART AND ART OF THE AMERICAS (3 units) F S

Three hours lecture.
Prerequisite: None.
A survey of the sculpture, architecture, paintings and artifacts produced by the Indian of the Americas. Geographically it covers the art of Peru, Central America, the southwest U.S., the northwest regions of the U.S. and Canada, and Alaska, with the major emphasis on Mexico. With the ending of the Indian empires, the colonial period is given brief coverage and emphasis then shifts to the contributions being made by the most important South American, Mexican and Mexican-American artists of 20th century thought in painting, sculpture and architecture. Not open to students with credit in CH ST 32a.

- 32b MEXICAN AND CHICANO ART (3 units)

Three hours lecture and discussion.
Prerequisite: None.
Deals with art history from 1521 to the present in Mexico and the United States. Emphasizes modern Mexican and Chicano artists who have worked in the 20th century. Explores panorama of relationships between art, history, religion, philosophy, and respective art movements. Develops historical and cultural awareness in the students of the contributions to our society by the people of Mexican and Chicano heritage in both the United States and Mexico. Contemporary Chicano art styles will also be explored. Not open to students with credit in CH ST 32b.

- 33a-33b ART OF ECUADOR AND PERU (3 units)

Three hours per week.
33a ART OF ECUADOR (1.5). Three hours per week for nine weeks.
33b ART OF PERU (1.5). Three hours per week for nine weeks.
33a–33b equivalent to 33ab.
Prerequisite: None.
ART 33a studies Indian and European influences on the art of Ecuador. Emphasis on architecture, sculpture and painting as well as on art personalities such as Santiago, Cusica and Cantua (formerly ART 32c). ART 33b covers art of Peru and includes part of Bolivia located in the Lake Titicaca area. Archaeological sites studied will include Machu Picchu and the Nazca Lines. Emphasizes art from Pre-Columbian to modern periods (formerly ART 32d).

- 34 ART OF SPAIN (1.5 units)

Three hours lecture for nine weeks.
Prerequisite: None.
A basic course on the Art of Spain will include art and architecture from the earliest Iberians to present day Spain.

- 35 AFRICAN AND AFRO-AMERICAN ART (3 units)

Three hours lecture-discussion.
Prerequisite: None.
A survey of the black tradition in artifacts, sculpture and painting from prehistoric times in Africa to the twentieth century in Africa and America. Begins with early cave paintings and covers the arts of families, tribes and peoples through the colonization period and ends with a survey of contemporary Africans and Afro-Americans. (Formerly ART 22.)

- 36ab WOMEN ARTISTS (3 units)

Three days lecture-discussion (1.5-1.5) equivalent to 36ab.
Prerequisite: None.
The student will gain an understanding of art history and art appreciation through the study of women artists, as related to the psychology, philosophy and politics of the times. The student will gain an understanding of the contemporary woman artist through a biographical approach. Not open to students with credit in WN ST 36ab. (Formerly ART 24ab.)

- 39 ART AMERICA: THE HISTORY OF THE FINE ARTS IN THE UNITED STATES (3 units)

Twenty half-hour television programs and nine hours review sessions to be arranged.
Prerequisite: None.
The student will acquire a general knowledge of the fine arts in the United States from the Colonial era to the present time. Style, content, and cultural context are emphasized.

- 40 INTRODUCTION TO ART (3 units)

Three hours lecture.
Prerequisite: None.
An examination of architecture and the figurative arts as an expression of the culture that produced them. (Formerly ART 10.)

71a–71b–71c–71d INTRODUCTION TO OIL PAINTING (1.5–1.5–1.5–1.5 units)

One hour lecture and two hours laboratory.
Prerequisite: None for 71a.
An introduction to the techniques and materials used for oil painting. The objective use of oils to meet the requirements demanded by composition and subject selected. To explore the elasticity and blending qualities of oil colors and their compatibility with various media.
ASTRONOMY (ASTR)

1 ELEMENTARY ASTRONOMY (3 units)  F S
Three hours lecture.
Prerequisite: None.
An introductory course in the general principles and fundamental facts of astronomy. Among topics included are the development of the basic concepts and theories of astronomy, the motions of celestial bodies, the solar system, stars, galaxies and cosmology.

2 TOPICS IN MODERN ASTRONOMY (3 units)  F S
Three hours lecture, the last hour being a lecture/demonstration/laboratory combination. Observing sessions and a field trip to Mt. Wilson Observatory will also be scheduled.
Prerequisite: ASTR 1.
A second course in introductory astronomy for non-science majors which explores recent astronomical developments and methods of observation. The student will learn the results of up-to-date investigations of the solar system and the search for extraterrestrial life, emphasizing data received from both manned and unmanned space probes. The student will understand nonmathematical descriptions of black holes, quasars, and the universe as well as the underlying theories of relativity. Also, the student will be exposed to observational methods in astronomy through both lecture-demonstrations by the instructor and laboratory exercises.

50 SURVEY OF ASTRONOMY (2 units)
Two hours lecture.
Prerequisite: None.
A television course emphasizing only the most fundamental theories and facts of astronomy. It includes topics such as the planets, stars, galaxies, and universe presented in a historical and descriptive manner. While lectures are given via television, several on-campus review and test sessions are required. Also, an optional lab (ASTR 50L) may be taken concurrently.

50L SURVEY OF ASTRONOMY LABORATORY (1 unit)
Three hours laboratory.
Prerequisite: ASTR 50 (may be taken concurrently) or ASTR 1.
This laboratory class will give the student actual practice in observing as an amateur astronomer as well as learning the techniques and equipment used by the professional. Some lecture/demonstrations will be given in the classroom with observations carried out at a convenient location (possibly off campus) and at home.

BACTERIOLOGY (BACT)

2 GENERAL BACTERIOLOGY AND MICROBIOLOGY (4 units)  S
Two hours lecture and six hours laboratory.
Prerequisite: CHEM 1a or 2a.
Designed to meet the needs of biology, pre-nursing, health education, home economics and engineering students. Surveys: history, morphology and "place in nature" of the micro-organisms; effects of physical and chemical agents; biochemical activities; bacteria in relation to public health and immunity; industrial applications; further sanitation of food, water, sewage disposal, soil and air.

43 MICROBIOLOGY (3 units)  S
Two hours lecture and three hours laboratory.
Prerequisites: CHEM 11, ANAT 43b concurrently.
Emphasizes the techniques of sterilization and aseptic procedures related to nursing. The uses of chemicals (disinfectants, etc.), antibiotics and the biologicals in the prevention and treatment of infectious diseases are stressed. Allergy and immunity are considered together with study of the characteristics of the major groups of micro-organisms. The effects of micro-organism on personal and community health are emphasized throughout the course.

70 MEDICAL MICROBIOLOGY (2 units)  F S
Two hours lecture.
Prerequisites: Medical laboratory registration, employment as a public school teacher.
For registered medical technologists and teachers of health and biology. Surveys the areas of physiology of bacteria and immunology. Covers in sufficient depths the pathogenic bacteria, rickettsias, viruses and fungi.
BIOLOGY (BIOL)

- **1a PRINCIPLES OF ANIMAL BIOLOGY (4 units)**
  - Two hours lecture, six hours laboratory and one all-day field trip.
  - Prerequisites: One year of high school chemistry and biology.
  - An introductory course for students majoring in related biological sciences with emphasis on the science of animal life, the structure and function of organ systems and the survey of living animal groups.

- **1b PLANT BIOLOGY (4 units)**
  - Two hours lecture, six hours laboratory and one all-day field trip.
  - Prerequisites: High school chemistry and biology.
  - An introduction to the fundamental principles of biology as illustrated by plants, followed by a survey of the plant kingdom. A basic course for all students of plant and animal science, forestry and agriculture.

- **1c PRINCIPLES OF CELLULAR BIOLOGY (4 units)**
  - Three hours lecture, three hours laboratory and a one day field trip.
  - Prerequisites: CHEM 1a and either BIOL 1a or 1b.
  - A course for biology majors including topics common to plants and animals: biochemistry, cell structure and function, genetics, ecology and evolution.

- **10 INTRODUCTION TO BIOLOGICAL PRINCIPLES (3 units)**
  - Three hours lecture. (Laboratory optional. See BIOL 10L.)
  - Prerequisite: A qualifying score on the college aptitude test or "C's" in high school sciences or a "C" in BIOL 53.
  - An introductory course in biological principles for non-science majors and applicable as an introductory course for science majors, illustrating facts and principles of organization, function, heredity, ecology and evolution of living organisms.

- **10L BIOLOGICAL PRINCIPLES LABORATORY (1 unit)**
  - Three hours laboratory.
  - Prerequisite: Completion of or concurrent enrollment in BIOL 10.
  - An optional laboratory to be taken concurrently with BIOL 10 if the student is in need of a laboratory science to fulfill general education requirements for transfer to another institution. The laboratory offers practical experience with living organisms and experience in the methods of science.

- **11 CONCEPTS OF BIOLOGY (4 units)**
  - Three hours lecture and three hours demonstration-discussion-laboratory per week, plus at least one Saturday field trip.
  - Prerequisite: A qualifying score on a college aptitude test or "C's" in high school sciences or a "C" in BIOL 53.
  - An introductory course in biological science illustrating the principles of organization, function and evolution of plants and animals, with particular emphasis on Man.

- **12 NATURAL HISTORY (3 units)**
  - Two hours lecture and three hours laboratory. Several field trips will be scheduled during lab time and at least one Saturday field trip may be required.
  - Prerequisite: A basic course in college biology or permission of instructor.
  - Lab and field work offers training and experience in the collection, identification and cataloging of plants and animals. Lectures stress basic principles of ecology, taxonomy and evolutionary relationship of organisms.

- **14 BIOTECHNIQUES (3 units)**
  - Six hours lecture, demonstration and laboratory/discussion.
  - Prerequisites: BIOL 11, 1a or ANAT 1.
  - Stress will be placed on familiarization with techniques of biological measurement and preparation commonly encountered in modern laboratories. Aspects of spectrophotometry, electrophoresis, cytology, chromatography, haematology and microtechnique will be among the topics investigated.

- **16 AGRICULTURAL BOTANY (3 units)**
  - Two hours lecture, three hours laboratory and at least one all-day field trip may be required.
  - Prerequisite: None.
  - The student will be introduced to the fundamentals of plant biology with emphasis on the seed plants and simpler plants ecologically related to them. Special attention will be given to field, forest and vegetable crops. A basic course for students choosing a career in agriculture, forestry and related fields.

- **18 FIELD BOTANY (2 units)**
  - One hour lecture and two hours laboratory.
  - Prerequisite: A basic course in biology.
  - Study of the key features of native plants both in the field and in the laboratory. Emphasis will be given to the collection, identification and ecological relationships of the local flora.
21 SPECIAL PROJECTS IN BIOLOGY (1–2 units)  
Two hours per week per unit. (Field trips by arrangement.)  
Prerequisite: A basic course in college biology.  
Biological preparations, laboratory apparatus and the development of specialized collection material under the direction of individual instructors. Designed for biology majors who plan to teach or wish to develop skills in laboratory demonstrations and biological collections.

22 NATURAL HISTORY OF THE MARINE ENVIRONMENT (3 units)  
Thirty video programs and one all day field trip.  
Prerequisite: None.  
A study of the unique features of the marine environment of the earth including life habitats, animals and plants, weather, mineral resources and pollution.

53 GENERAL BIOLOGY (3 units)  
Two hours lecture, two hours laboratory/demonstration and field trips by arrangement.  
Prerequisite: None.  
Outlines the main facts and principles of biology; experience in the use of scientific method. Recommended (and may be required) as preparation for other college biological sciences whenever the previous school record indicates insufficient preparation for such studies. Not open for credit to students who have already completed BIOL 11, BIOL 1a, PHYSL 1 or high school biology with a grade of “B” or higher.

Broadcasting  
See Communications  
BUSINESS ACCOUNTING (ACCT)  

53a INTRODUCTION TO ACCOUNTING I (3 units)  
Three hours lecture.  
Prerequisites: BUS 51 or 53 (may be taken concurrently).  
An introductory course in modern accounting theory and practice designed to serve the needs of students who plan to work in some phase of accounting. The accounting cycle is covered to include adjusting entries, the expanded worksheet and financial statements as they relate to proprietorship accounting.

53b INTRODUCTION TO ACCOUNTING II (3 units)  
Three hours lecture.  
Prerequisite: ACCTG 53a.  
An intermediate course in modern accounting theory and practice giving particular emphasis to accounting questions and issues peculiar to the partnership as well as an introduction to corporation accounting. Special attention is given to accounting methods and procedures which include depreciation, worksheets and payroll.

54 PAYROLL ACCOUNTING (3 units)  
Three hours lecture.  
Prerequisite: ACCTG 53a.  
Gives the student a good foundation in payroll taxes. Involves the study of Federal Social Security, Income Tax Withholding and California Unemployment Insurance as they affect the employee and employer.
57a FUNDAMENTALS OF FEDERAL INCOME TAX PREPARATION
FOR PRACTITIONERS AND PREPARERS (3 units)

Three hours lecture.
Prerequisite: Knowledge of income tax preparation desirable but not required.
Emphasizes those areas of individual, partnership and corporation tax returns having the
greatest number of discrepancies.

63 TAXATION ACCOUNTING (3 units) F S

Three hours lecture.
Prerequisites: ACCTG 53a, 53b or BUS A 1a.
The fundamental structure of the Federal Income Tax law with emphasis on the taxation
of the individual and the small non-corporate business. The impact of income taxes on
business decisions. California taxation laws are also studied where they are at variance
with Federal Laws.

76 SCHOOL DISTRICT BUSINESS PROCEDURES (2 units) F S

Three hours lecture for twelve weeks.
Prerequisite: None.
An introductory course in school district business procedures. Designed to acquaint the
general public with modern educational business functions, responsibilities and with legal
guidelines relative to revenue expenditure procedures. Particularly serves the need of
persons new to school district business offices and offers a broad exposure for any
existing school employee of the supportive functions of a school district operation.

BANKING
(BANKG)

70a PRINCIPLES OF BANK OPERATION (3 units)

Three hours lecture.
Prerequisite: None.
The development of banking in the United States, economic functions of banking,
principles behind bank operations and the many facets of banking services to the public.

76 MONEY AND BANKING (3 units)

Three hours lecture.
Prerequisite: None.
Emphasizes the banking system as the circulating medium of our economy; the effect of
bank operation on the economy; the nature and creation of money; the uses of money in
modern society; and the influence of money on price levels and on general business
activity. Discusses the Federal Reserve System, its obligations and powers, and Treasury
policy as it affects monetary problems.

77a AGRICULTURAL FINANCE (3 units)

Three hours per week.
Prerequisite: None, but recommended for those in lending or farming enterprises.
Designed as a review of the role of credit in modern agriculture. Presents the methods
employed in making, servicing and collecting farm loans. The extension of agricultural
credit is approached from the standpoint of financing cattle, sheep, dairy, poultry and
producers of grain, cotton, tobacco, potatoes, fruits and truck crops. Also considered are
farm equipment, farm real estate loans, farming as a business, loan analysis and the public
relations aspects of farm financing.

77b CREDIT ADMINISTRATION (3 units)

Three hours per week.
Prerequisite: None, but designed for those employed in credit or lending positions.
Provides assistance to students in preparing for the handling of bank loans and discounts.
Considers the formulation and administration of a sound loan policy with emphasis on
the factors to be reviewed in each bank when the loan policy and the method of carrying
it out are being determined. Careful review is made of the means by which adequate
information may be collected and analyzed and the degree of risk approximated.

77c INSTALLMENT CREDIT (3 units)

Three hours lecture.
Prerequisite: None.
Outlines policies, procedures and techniques of installment lending developed recently by
commercial banks. Emphasizes credit, collection, new business, policy relations. Discusses
automobile financing, the importance of installment credit to all income groups and its
role in community life.

78 ANALYZING FINANCIAL STATEMENTS (3 units)

Three hours lecture.
Prerequisite: None.
An introduction to the practical analysis of financial statements to assist in the wise and
profitable extension of credit. Primarily aimed toward students employed by financial
institutions and grantees of credit.

79 FINANCING BUSINESS ENTERPRISE (3 units)

Three hours lecture.
Prerequisite: None but recommended for those in the lending profession or those
concerned with financing business enterprises.
Basic concepts related to long term and short term funds, fixed and circulating capital,
the importance of solvency, and the central role of earnings in business as they integrate
with the banking function of lending. The basic problems in the allocation of risk,
income, and control in business finance are covered. The legal structures of sole
proprietorships, partnerships, and corporations are discussed as they relate to the
financing of business enterprises.
BUSINESS
(BUS)

30 LAW IN OUR SOCIETY (3 units)

Three hours lecture.
Prerequisite: None.
A survey of legal problems which confront people in their everyday life activities. Included is a study of the courts, trials, marriage and divorce, community property, wills, trusts, homesteads, bankruptcy and many other principles of law.

39 THE CONSUMER IN AMERICAN SOCIETY (3 units)

Three hours lecture.
Prerequisite: None.
Designed to enable the student to classify consumer choices of needs versus wants, order, consumer decisions, identify sources and techniques, describe the steps involved in applying comparative shopping techniques to specific purchases.

51 BUSINESS MATHEMATICS (3 units)

Three hours lecture.
Prerequisite: Qualifying score on college aptitude test.
A review of basic arithmetic operations, the study of fractions, decimals and percentage as used in business problems; shortcuts; the application of mathematics in business situations; depreciation, discount, interest, installment buying, profit and loss, payroll, credit, insurance, annuities, graphs. Not open to students with credit in BUS 53.

52 INTRODUCTION TO BUSINESS (3 units)

Three hours lecture and discussion.
Prerequisite: None.
Explores the nature and scope of business, its component parts; how business is owned, organized and managed. Some areas covered are: our economic system, government regulation and taxation, the legal environment, business ethics, forms of business ownership, internal organization, management, labor relations, production, financing, marketing and decision making. Required of all career business students.

53 BUSINESS MATHEMATICS AND CALCULATING MACHINES (4 units)

Three hours lecture and two hours laboratory.
Prerequisite: Qualifying MATH score.
A business approach to the study of fractions, decimals and percentages with application in printing and electronic calculators. Emphasizes depreciation, discounts, interest, installment buying, financial statements, credit, insurance and annuities not open to students with credit in BUS 51.

54 PERSONAL FINANCE (3 units)

Three hours lecture.
Prerequisite: None.
A study of the basic, essential subject of personal finance. Designed for the student who is interested in the problem of allocating income and managing personal finances. Topics covered: maximization of income, budgeting and allocation of income, use of credit, saving and investing, housing, transportation, insurance, taxes, retirement income and estate planning. Emphasizes the application of the principles studied.

55 SURVEY OF BUSINESS LAW (3 units)

Three hours lecture.
Prerequisite: None.
A survey of the legal rights, duties and responsibilities common to all in the areas of contract, sales, torts and crimes. A review of the functions of our judicial institutions. For non-transfer students.

56 CONSUMER EDUCATION (3 units)

Three hours lecture-discussion.
Prerequisite: None.
Assists the consumer at all income levels with solving the problems that are of most importance to the modern consumer. Includes all essential topics of consumer education such as personal income management, preparation of budgets, using banking and credit facilities, principles of good buying, social security, insurance, housing problems, law, and preparation of individual income tax returns. Not open to students with credit in BUS 54.

58 HUMAN RELATIONS AND MOTIVATION (3 units)

Three hours lecture.
Prerequisite: None.
A behavioral approach to the business environment. Stresses self-improvement through self-understanding; elements of job applications and job advancement; motivation, people-to-people relationships and techniques of leadership on the job. Satisfies three units of elective social science credit.

71a LEADERSHIP AND MANAGEMENT TRAINING (1-4 units)

Eighteen hours of instruction per unit.
Prerequisite: None.
A basic course in leadership training with emphasis on student participation. Outlines what leadership is, problems in leadership, steps a person must take to become a leader and, through practical class projects, provides practice in leadership training.

73 INTRODUCTION TO INVESTMENTS (3 units)

Three hours lecture.
Prerequisite: None.
An introduction to the principles of investments and money management.
74 ADMINISTRATIVE MANAGEMENT FOR SMALL BUSINESSES (3 units)

Three hours per week.
Prerequisite: None.
Designed to assist the small business owner or manager with overall determination of major policies and objectives of the business. Such policies as expansion, developing assistants, buying and selling, relationships of volume, costs, price, quality, service, and timing, human relations, customer services and such other problems as the group interest directs will be considered.

80 TOPICS IN SAVINGS AND LOAN (1–4 units)

Eighteen hours of instruction per unit.
Prerequisite: None.
A series of workshop and/or seminar sessions devoted to the improvement of skills, attitudes, and knowledge of savings association personnel. The course may feature panels of specialists or individual speakers, who will be professionals in the savings association business with expertise in a particular subject area. Topics may include management education, in-house training and development programs, as well as other special programs.

253 BUSINESS MATHEMATICS AND CALCULATING MACHINES (4 units) F S SS

Self-paced minimum of five hours per week in the Individualized Business Education Center (IBEC).
Equivalent to BUS 53.

BUSINESS ADMINISTRATION (BUS A)

1a–1b PRINCIPLES OF ACCOUNTING (3–3 units) F S SS

Four hours lecture.
Prerequisite: Sophomore standing. 1a prerequisite to 1b.
An introduction to accounting theory and practice. The first semester covers the recording, analyzing and summarizing procedures and concepts necessary to determine and interpret the financial position and income of a merchandising business. The second semester includes partnership and corporation accounting and the application of cost accounting, statement analysis and income taxes to the control and decision making processes of a business organization.

18a BUSINESS LAW (3 units) F S

Three hours lecture.
Prerequisite: Sophomore standing.

18b BUSINESS LAW (3 units) S

Three hours lecture.
Prerequisite: BUS A 18a.

20 THE AMERICAN BUSINESS ENTERPRISE (3 units) F

Three hours lecture.
Prerequisite: Qualifying score on a college aptitude test.
The nature, function and management of the business enterprise in our modern political, social and economic environment; business structure and organization; business decision-making processes; evaluation of the relationships of business to government, to labor and to the public.
COMPUTER SCIENCE
(COM S)

5 BASIC PROGRAMMING LANGUAGE (3 units)  F  S  SS
Three hours lecture.
Prerequisite: MATH A or equivalent.
Fundamentals of programming and operating time-shared computer systems in BASIC
(Beginner’s All-purpose Symbolic Instruction Code). Develops skills and provides
experience in using the computer as a problem solving tool in business, mathematics,
physical sciences, social sciences, and other areas.

18 FORTRAN PROGRAMMING (3 units)  F  S  SS
Three hours lecture.
Prerequisite: MATH A or equivalent.
Basic principles of computer programming. History and structure of computer systems.
Solutions of problems using FORTRAN programming languages.

19 FUNDAMENTALS OF APPLICATIONS PROGRAMMING (3 units)  F  S
Three hours lecture.
Prerequisites: MATH D; COM S 5 or COM S 18 or permission of instructor.
An introductory course in programming techniques and algorithms useful in science,
engineering, economics, and other applications. Topics include: number systems and error
analysis, solutions of nonlinear equations, matrix operations, solutions to systems of
linear equations, interpolation and approximation, probability and statistics, numerical
differentiation and integration, graphics techniques, sort routines, file handling, and
structured programming. Other topics will be considered, depending on student interest.
Students will use the facilities of BC’s Instructional Computer Center.

21 SPECIAL PROJECTS IN COMPUTER SCIENCE (1 unit. Limit 2 units)  F  S  SS
Three hours per week.
Prerequisites: Completion of a basic course in computer science or business data
processing with grade of “B” or better and consent of the instructor.
Individual directed work in a computer science area. Individual research problems using
materials, equipment, and techniques not available in larger classes. The course is designed
for students who plan to use computer techniques in the academic field or future
vocational application of their choice.

48 WORKSHOP IN COMPUTER ASSISTED INSTRUCTION (1 unit)  F  S
Two hours lecture/laboratory.
Prerequisite: None.
The student will be able to write lessons in DECAL computer-assisted instruction.

DATA PROCESSING
(DTA P)

1 INTRODUCTION TO DATA PROCESSING AND COMPUTING (3 units)  F  S  SS
Three hours lecture.
Prerequisite: Minimum of two years of high school mathematics or MATH A (may be
taken concurrently).
An introductory course in data processing. Study of the history of unit records, concepts and
equipment. Basic organization and characteristics of computers. Survey of computers,
languages, systems and applications. Computer solutions by the student of several
numerical and non-numerical problems using an assembler or high-level language.

4 COBOL PROGRAMMING LANGUAGE (3 units)  F  S
Two hours lecture and three hours laboratory.
Prerequisite: DTA P 1.
A continuation of programming, surveying the significant features of machine
independent languages. Emphasizes the syntax and semantics of COBOL. Introduction to
scientific programming.

5 DATA PROCESSING SYSTEMS (3 units)  F  S  SS
Three hours lecture.
Prerequisite: DTA P 4 or 6 or COM S 5 or 18.
A study of systems and procedures set up by business and industry to implement the
processing of accounting data required for billing, payroll, purchasing, inventory control,
etc. Includes a study of integrated or total management information and data processing
systems.

6 RPG PROGRAMMING LANGUAGE (3 units)  F
Two hours lecture and three hours laboratory.
Prerequisite: DTA P 1.
Theory and practice in solving business data processing problems on a modern digital
computer. Principles of problem analysis, coding and debugging. Programming problems
from the fields of business. Emphasizes the syntax and semantics of RPG language.

55 INTRODUCTION TO COMPUTING (TV) (2 units)  F  S
Two hours per week. Twenty lesson television series.
Students will become acquainted with hardware and software fundamentals, computer
languages, and programming logic. They will follow the development of a computer
system to solve a typical problem and will study the computer’s role in management
decision making and in society at large.
11 ECONOMIC SECURITY AND INDIVIDUAL LIFE INSURANCE (3 units)

Three hours lecture.
Prerequisite: None.
The student will learn a basic approach to the study of Life Insurance fundamentals. Special attention will be given to the role of Life and Health Insurance in economic security, including the types of life insurance and annuity contracts. An indepth analysis of the mathematics of life insurance is also included. Equivalent to CLU Course No. 1—Individual Life and Health Insurance.

12 LIFE INSURANCE LAW AND MATHEMATICS (3 units)

Three hours lecture.
Prerequisite: None.
The student will be introduced to a study of law and the life insurance contract. Analysis will be made of the insurance contract in operation emphasizing policy provisions, beneficiary designation and settlement options. Study will also be made of risk selection, company investments, financial statements and regulation of companies. Equivalent to CLU Course No. 2.

13 GROUP INSURANCE AND SOCIAL INSURANCE (3 units)

Three hours lecture.
Prerequisite: None.
The development and significance of group life and health insurance. Equivalent to CLU Course No. 303.

14 ECONOMICS (3 units)

Three hours lecture.
Prerequisite: None.
A solid foundation to facilitate clearer thinking about economic problems. Equivalent to CLU Course No. 304.

16 INVESTMENT AND FAMILY FINANCIAL MANAGEMENT (3 units)

Three hours lecture.
Prerequisite: None.
The student will develop a broad knowledge of family financial management, including savings and investment media, insurance, common stocks, mutual funds, annuities, and real estate. Equivalent to CLU Course No. 16.

17 INCOME TAXATION OF LIFE INSURANCE (3 units)

Three hours lecture.
Prerequisite: None.
Designed to outline and to illustrate the tax consequences of Life Insurance. It supplies a guide to the principles of the tax incidence on life insurance and applies these principles in such a way as to aid the life insurance practitioner in the analysis and evaluation of the problems of his own clients. Equivalent to CLU Course No. 5.

21 PRINCIPLES OF INSURANCE (3 units)

Three hours per week.
Prerequisite: None.
Develops an understanding of the basic principles of insurance as well as the nature and operation of the insurance business. Emphasizes the principles which underlie the entire field of insurance. Understandings are developed in the fundamentals of: indemnity, insurable interest, co-insurance, subrogation, proximate cause, negligence and contributory negligence, risk, requisites of insurable risks, deductibles, value policy and probability. One of the required subject areas for the I.I.A. program in general insurance. Equivalent to I.I.A. Course No. 21.

22 PROPERTY INSURANCE (3 units)

Three hours per week.
Prerequisite: INSUR 21 or counseling interview.
Designed to give students an understanding and appreciation of property and liability insurance principles. Property insurance focuses largely on insurance coverages as they are implemented through contracts for property risks. Selected topics for study include: The Standard Fire Insurance Policy, Indirect losses, Ocean and Inland Marine, Burglary & Theft Insurance, Multiple-line Insurance. Specimen forms are analyzed to understand provisions which determine protection provisions for various property risks. Equivalent to I.I.A. Course No. 22.

23 CASUALTY INSURANCE (3 units)

Three hours per week.
Prerequisite: INSUR 21 or counseling interview.
Designed to give students an understanding of casualty risks and the means by which such hazards may be minimized by insurance. Study in this course includes General Liability Insurance, Automobile Insurance, Workmen's Compensation, Fidelity and Surety Bonding, Individual Health Insurance, Life & Social Insurance, and the Collective Merchandising of Insurance.
24 STRUCTURE OF THE RISK MANAGEMENT PROCESS (3 units)

Three hours per week.
Prerequisite: INSUR 21.
The objective of the course is to teach application of a logical decision-making process for selecting and implementing a full range of risk control and risk financing techniques to contribute to the profits and other objectives of a business firm. The course aims to benefit persons responsible for managing the risks of loss faced by their own firms, insurance producers who wish to broaden their services to include complete risk management counseling, and insurance company underwriters seeking to sharpen their judgment in selecting profitable risks and in recommending loss-control procedures to improve the quality of insured accounts.

39 FAMILY RISK MANAGEMENT (2 units)

Two hours per week.
Prerequisite: None.
Deals with the concepts of liability risks, personal and personnel risks and property risks. It follows a study of tort liability. Examination is made of the various insurance policies available for risk management. Study is also made of the various social programs intended to manage risk among the population.

LEGAL OFFICE ASSISTING (LOA)

50 CIVIL LITIGATION (3 units)

Three hours lecture.
Prerequisite: SEC T 66 or equivalent.
A study of the court system and structure. An examination of the procedure by which an attorney represents a client from the initial interview through appeal.

51 WILLS, INHERITANCE AND PROBATE ADMINISTRATION (3 units)

Three hours lecture.
Prerequisite: SEC T 66 or equivalent.
A study of probate court mechanics, forms for petitions, wills, trusts, creditors' claims, taxes, sales, homesteads, distribution and other probate matters.

52 LEGAL RESEARCH (3 units)

Three hours lecture.
Prerequisite: SEC T 66 or equivalent.
Introduction to various types of legal resources with major research and drafting assignments designed to develop skill in effectively using legal resources and communicating the results of the research.

53 FAMILY LAW (3 units)

Three hours lecture.
Prerequisite: SEC T 66 or equivalent.
Study of the laws and court procedures involved in marriages, dissolutions, adoptions, guardianships and conservatorships.

MANAGEMENT (MNGMT) (MGMT)

53 ORAL AND NONVERBAL COMMUNICATION (3 units)

Three hours per week.
Prerequisite: SPCH 51 or previous speech experience.
The study and practice of speech as applied to business and personal life. A review of basic speech principles; parliamentary law; refinement of skills in interpersonal communication and group processes. MNGMT 69 recommended to be taken by Management Certificate candidates prior to this course. Not open to students with credit in SPCH 53.

58 LIFE/WORK PLANNING (3 units)

Three hours per week.
Prerequisite: None.
Life/Work Planning offers the students a unique opportunity to experience a new, detailed and realistic look at themselves, their lives, and their work. It provides a step-by-step procedure for participants to examine their concerns and aspirations, define and evaluate their skills and interests, establish personal and career goals and make the decisions and plans to get there.

59 PERSONNEL MANAGEMENT (3 units)

Three hours per week.
Prerequisite: None.
Provides the student with training in management development, leadership, supervision, effective use of meetings, managing through participation, communication, how to discipline, wage and salary administration, incentives, organization, collective bargaining and all philosophy, principles and policies of a business.

63 WRITTEN COMMUNICATIONS (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
A comprehensive treatment of the principles of written communication as an important function of management. Includes analysis of the most widely used forms of business writing—the letter, the report and the memorandum—as well as applications of the associated skills of dictation and reading.
64 ADMINISTRATIVE LAW (3 units)
Three hours per week.
Prerequisite: MNGMT 68.
Using, as part of the textual material, the California Administrative Code, this course acquaints the public employee with administrative law in general and those in the private sector how to live by the rules established under administrative law. Specifically the course is designed to inform the student of the processes of adopting rules and regulations and to enable him to understand and appreciate the various areas and problems in law relating to his particular field.

65 FUNDAMENTALS OF PUBLIC ADMINISTRATION (3 units)
Three hours per week.
Prerequisite: MNGMT 68.
Introduction to the historical and contemporary status of administrative institutions, principles and practices of public administration and the process of public management. Also includes the process of public policy-formulation, governmental planning and programming and administrative decision-making.

66 PRINCIPLES OF ORGANIZATION AND MANAGEMENT (3 units)
Three hours per week.
Prerequisite: MNGMT 68.
A study of formal organization, the organizational environment and organization planning and control. Topics include the nature of complex organization, decision-making, small group studies and individual behavior. Also included are planning theory, systems management and nonformal behavior.

67 FUNDAMENTALS OF FISCAL ADMINISTRATION (3 units)
Three hours per week.
Prerequisite: MNGMT 68.
Surveys the field of finance, both public and private. Emphasizes current problems and basic principles of finance. Financial institutions and the instruments and procedures used for loans and investments to meet the demand for funds in the capital markets are discussed and analyzed.

68 SUPERVISION TECHNIQUES (3 units)
Three hours per week.
Prerequisite: None.
A survey of the broad fields of management: job instruction training, conference leading, leadership training, human relations and job methods. The qualities of leadership needed by all those in a supervisory capacity are stressed. This is the first course in the management program.

69 SUPERVISION TECHNIQUES – HUMAN RELATIONS (3 units)
Three hours per week.
Prerequisite: MNGMT 68.
Deals exclusively with human relations using the case problem method. The field of human relations is reviewed: leadership, communications, status, decision-making, how to handle difficult employees, motivation, personnel problems, etc.

MARKETING (MKTG)

61 FUNDAMENTALS OF MARKETING (3 units)
Three hours lecture/discussion.
Prerequisite: None. Sophomore standing recommended.
Designed to meet the needs of students for an introductory course in marketing. Emphasizes key concepts and issues underlying the modern practice of marketing. Surveys the general nature of marketing, markets, the marketing concept, buyer behavior, the marketing process and marketing organization.

53a FUNDAMENTALS OF RETAILING (3 units)
Three hours per week.
Prerequisite: None.
Covers retail store operation — the independent retailer, the chain store, the specialty shop, the department store, etc. The operations of buying, selling, selecting of personnel, pricing, markup and markdowns are all covered. Emphasizes advertising, sales promotion, window display, interior display and credit. Experts from the field of retailing are utilized as guest speakers.

53b FUNDAMENTALS OF RETAILING (3 units)
Three hours per week.
Prerequisite: None.
Emphasizes product information in the “hard lines” as well as the “soft lines.” Appliances, furniture, rugs, plastics, jewelry, groceries, glassware, sportswear, coats, suits, dresses and many other lines are studied. Through field trips, visual aids and guest lectures, the latest developments in each field are brought to the student.

62 FUNDAMENTALS OF SALESMANSHIP (3 units)
Three hours lecture.
Prerequisite: None.
A study of the fundamental principles of creative selling. Prospecting, the approach methods of presentation and demonstration, meeting objections, the close and the follow-up are covered thoroughly with frequent student participation. Special emphasis on the development of poise, improvement in personality and stimulation of confidence through training in the speech aspects of selling.
64 FUNDAMENTALS OF ADVERTISING (3 units)

Three hours lecture/discussion.
Prerequisite: None.
A survey of the field of advertising; its uses, its economic implications and its value. Emphasizes understanding and evaluating the place of advertising in our economy, rather than technical skill. Includes preparation of advertising, field trips, guest speakers and class discussions.

74a–74b RETAIL ADVERTISING (3–3 units)

Three hours lecture.
Prerequisite: None.
Introduces the many types of advertising and teaches methods of preparing finished copy and layouts. Includes history of advertising, purposes of advertising, layout, copywriting, direct advertising, radio, television and newspaper advertising.

251 PSYCHOLOGY AND HUMAN RELATIONS (1 unit)

Self-paced, twenty hours minimum lecture/laboratory, open entry/open exit.
Prerequisite: None.
Examines human relations in the setting of a marketing business, and emphasizes that a business situation requires different human relations skills than everyday personal contacts do. Identifies the ways in which successful human relations on the job create a successful employee and contributes to the success of his employer's business.

OFFICE SKILLS (OFF S)

50a BEGINNING TYPING (3 units)

Five hours lecture.
Prerequisite: Level B ENGL classification.
A study of basic techniques and drills to develop speed and accuracy. Instruction in centering, letter placement, simple tabulation, manuscripts, rough drafts, etc. are also included.

50b INTERMEDIATE TYPING (3 units)

Five hours lecture.
Prerequisites: Completion of OFF S 50a with at least a "C" or three semesters of high school typing, level B ENGL classification.
Designed to increase students' facility to do mailable production work and to improve typing techniques, speed and accuracy. Comparable to OFF S 250b (I, II, III).

52 FILING (1.5 units)

Three hours per week for nine weeks.
Prerequisite: Level B ENGL classification.
The fundamentals, rules and procedures common to basic systems of filing. Filing equipment and supplies are used to provide instruction and practice in alphabetic, geographic, numeric and subject filing.

60a ADVANCED TYPING (3 units)

Five hours lecture.
Prerequisite: Completion of OFF S 50b with at least a "C".
Designed to enable the student to type well enough by the end of the year to hold a general office position and to meet the Civil Service Requirements for Junior Typist. Comparable to OFF S 260a (I, II, III).

60b EXPERT TYPING (3 units)

Five hours lecture.
Prerequisites: For secretarial or clerical majors who have completed OFF S 60a with at least a "C".
Upon completion of this course, the student is qualified to hold a general office position requiring a high degree of typing skill. Includes letter styles, tabulations, manuscripts, rough drafts, office forms and legal documents.

65 MACHINE TRANSCRIPTION (1.5 units)

Two hours lecture, one hour laboratory for nine weeks.
Prerequisite: Completion of OFF S 50b with at least a "C". Completion of SEC T 52 or ENGL 1a with at least a "C".
Designed to develop skill in operating transcribing machines. Practice will be given in transcribing letters, memoranda, and manuscripts from various areas of business and government. English usage, punctuation and spelling techniques are emphasized. Completion of or concurrent enrollment in OFF S 60a is highly recommended.

250a BEGINNING TYPING I, II AND III (1–1–1)

Self-paced, minimum of five hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisite: None.
Individualized typewriting instruction includes two general areas: (1) the mastery of the keyboard by touch and a knowledge of all operational parts of the typewriter; (2) the ability to apply this skill in the preparation of letters, tabulations, manuscripts, and business forms. Each 1 unit of work completed will be assigned a letter grade. The complete course (3 units) is comparable to Office Skills 50a.
250b INTERMEDIATE TYPING I, II AND III (1-1-1 unit) F S SS
Self-paced, minimum of five hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisites: OFF S 250a with a “C” or higher or a satisfactory score on a typing placement test.
Individualized intermediate typing course. Student will develop speed and accuracy and learn to type the various styles of business letters, business forms and reports, telegrams, memorandums, tabulations, and manuscripts. Each 1 unit of work completed will be assigned a letter grade. The complete course (3 units) is comparable to OFF S 50b.

252a FILING (1.5 units) F S SS
Self-paced, minimum of twenty-seven hours in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisite: None.
A self-paced course in the fundamentals, rules, and procedures common to basic systems of filing. Filing laboratory materials are used to provide instruction and practice in alphabetic, numeric, geographic, and subject filing. Equivalent to OFF S 52.

252b RECORDS MANAGEMENT (1.5 units) F S SS
Self-paced, minimum of three hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisite: OFF S 52a or 252a with a “C” or higher.
The storage and control of card files and noncorrespondence records; storage and retrieval cycles, including systems for coding records and filing microrecords; control of the records cycle—creation, retention, transfer, and disposal of records; and procurement and use of filing equipment and supplies.

260a ADVANCED TYPING I, II AND III (1-1-1 unit) F S SS
Self-paced, minimum of five hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisites: OFF S 250b with a “C” or higher or a satisfactory score on a typing placement test.
Individualized advanced typing course that prepares the student for employment competency, enabling the student to type a variety of business letters, forms, memorandums, business reports, tables, and financial statements. It includes actual office style situations and projects written in a dialogue format which requires the student to analyze and organize work before actually typing it. Each 1 unit of work completed will be assigned a letter grade. The complete course (3 units) is comparable to OFF S 60a.

265a MACHINE TRANSCRIPTION (1 unit) F S
Self-paced, minimum of twenty-seven hours in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisites: Students should be able to type at least 45 gross words a minute for 5 minutes with 5 or less errors. It is highly recommended that the student has completed or be concurrently enrolled in OFF S 50b or 250b and a level 1 English course.
Designed to develop skill in operating the transcribing unit. Practice is given in transcribing letters in the current business letter arrangement and style. Skill in the mechanics of communicating—punctuation, spelling, grammar, and vocabulary—is stressed.

265b MACHINE TRANSCRIPTION (1 unit) F S
Self-paced, minimum of twenty-seven hours in the Individualized Business Education Center (IBEC); open entry/open exit.
Prerequisite: Completion of OFF S 265a or 65.
A continued self-paced transcription course emphasizing manuscripts, drafts, and tabular material. Students are also familiarized with the use of the telegram, standardized letter, and the interoffice memorandum. The subjects of incoming mail, outgoing mail and writing letters of application bring together the skills required to attain a high degree of proficiency in machine transcription.

REAL ESTATE (REST)

39 THE REAL ESTATE CONSUMER (3 units)
Three hours lecture.
Prerequisite: None.
An introduction to the field of Real Estate showing how Real Estate affects our individual lives as well as the community, state and nation. It will include not only the values inherent in taking an active part in planning and development of the community in which you live, but will give you a better understanding of the benefits of owning real estate. These goals will be reached through an understanding of real estate terminology and an understanding of the part real estate plays in the American economy.

55 ESCROW PROCEDURES I (3 units)
Three hours lecture.
Prerequisite: None.
The principles and methods of handling escrows involving title to land, sale of personal property and all other types of escrows ordinarily handled in an escrow office. Includes a study of the various forms and practices used in the drawing of the escrow instructions and the buyers’ and sellers’ closing statements. Also considers the duties of the escrow officers.
56 ESCROW PROCEDURES II (3 units)  
Three hours lecture.  
Prerequisite: REST 55.  
The student will learn the more unusual and difficult types of real estate escrows, with 
evaluation of solutions to problems. The case problem method of teaching will be used 
extensively.

59 PRINCIPLES OF REAL ESTATE (3 units)  
Three hours lecture.  
Prerequisite: None  
Fundamentals of real estate practice with emphasis on principles and terminology. The 
real estate business, liens, taxes, bonds, contracts, leases, deeds and other real estate 
insitnments are studied in conjunction with brokerage and home ownership. Designed for 
both consumers and people entering the field of real estate.

60 LEGAL ASPECTS OF REAL ESTATE (3 units)  
Three hours lecture.  
Prerequisite: None.  
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. Satisfies partial educational requirement of State broker's 
examination.

61 REAL ESTATE ECONOMICS (3 units)  
Three hours lecture.  
Prerequisite: None.  
An advanced course dealing with the nature and classification of land; business 
fluctuations and their relationship with real estate cycles; residential and commercial 
market trends; rural property and special purpose trends; economic factors affecting the 
development of property, construction and subdivision. Satisfies partial education 
requirement for State Broker’s examination.

62 REAL ESTATE FINANCE (3 units)  
Three hours lecture.  
Prerequisite: None.  
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. Satisfies partial educational requirement of 
State broker’s examination.

63 REAL ESTATE APPRAISAL (3 units)  
Three hours lecture.  
Prerequisite: None.  
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 will be on residential and single-unit property. Satisfies 
partial educational requirement of State broker’s examination.

64 REAL ESTATE PRACTICE (3 units)  
Three hours lecture and discussion.  
Prerequisite: Real Estate license is recommended or REST 59.  
Day-to-day operations in the typical real estate office and the role of the brokerage, 
including: listing, prospecting, advertising, financing, sales techniques, escrow and ethics. 
Satisfies partial requirement of State broker’s examination.

65 INCOME TAX ASPECTS OF REAL ESTATE INVESTMENT (3 units)  
Three hours lecture.  
Prerequisites: Some previous knowledge of taxes and/or real estate, one year of 
accounting. REST 59, 60 and 64 are recommended.  
A comprehensive introduction, for real estate investors, salesmen and developers, to the 
tax principles governing the operation of business real estate. By means of practical 
examples, illustrations and workshop problems, real estate transactions are examined in 
light of their tax implications, with emphasis on tax benefits arising from ownership in 
real estate. Pertinent tax law revisions are analyzed.

66 ADVANCED REAL ESTATE APPRAISAL (3 units)  
Three hours lecture.  
Prerequisite: REST 63.  
Deals with the principles of appraisal, the appraisal process, features of appraisal, 
property considerations, appraisal techniques and professional standards for appraisers. 
There will be field trips to local sites illustrating the particular principle involved in that 
section of the course. The term project for each individual will consist of an actual 
appraisal of a local apartment complex illustrating all of the factors involved in the 
appraisal process. Satisfies partial requirement of State broker’s examination.

70 TOPICS IN REAL ESTATE (1–4 units)  
Eighteen hours of instruction per unit.  
Prerequisite: None.  
Workshop and seminar related to special topics of interest and concern to the real estate 
industry. The course may feature panels of specialists or individual speakers. Topics may 
include but not limited to: Investments, Trusts, Syndications, Exchanges, Brokerage 
Administration, Zoning, Property Management, Industrial Real Estate, Research.
SECRETARIAL TRAINING (SEC T)

10 BUSINESS CORRESPONDENCE (3 units)  
Three hours lecture.  
Prerequisites: Eligibility for ENGL 1a and typing ability.  
Emphasizes the techniques of writing credit, collection, sales order-making, acknowledgement, adjustment and application letters as well as other types of correspondence used in business. Continued training is given in spelling, punctuation and those points of grammar especially needed by stenographers and secretaries. Fulfills three units of the English-Speech requirement for the AA degree.

20a ELEMENTARY GREGG SHORTHAND (4 units)  
Five hours lecture, plus two hours practice per week in Audio-Visual Laboratory.  
Prerequisites: Concurrent enrollment in typing is required unless OFF S 60a has been completed. Level A ENGL classification.  
A beginning course in the study of Gregg theory with dictation and transcription practice. Open to students who have had no previous shorthand or who have had less than one year of shorthand in high school with less than a "C" grade.

20b INTERMEDIATE GREGG SHORTHAND AND TRANSCRIPTION (4 units)  
Five hours lecture plus two hours practice per week in Audio-Visual Laboratory.  
Prerequisites: Level A ENGL classification. SEC T 20a with at least a "C" or SEC T 54 or 254b with at least a "C" or completion of two or three semesters of shorthand in high school with a "B" or higher, with a minimum speed of 60 words a minute for three minutes on new material. Concurrent enrollment in a typing course is required unless OFF S 60a has been completed.  
A continuation of 20a with concentrated practice in dictation and transcription. English usage, punctuation and spelling are stressed. Concurrent enrollment in a typing course is required.

20c ADVANCED GREGG SHORTHAND AND TRANSCRIPTION (4 units)  
Five hours lecture, plus two hours per week in Audio-Visual Laboratory.  
Prerequisites: Level A ENGL classification. Completion of SEC T 20b with at least a "C." Concurrent enrollment in a typing course is required unless OFF S 60a has been completed.  
Designed to develop shorthand skill to the expert level through the use of shortcuts and advanced word-building principles. Students receive advanced training in taking dictation and transcribing business correspondence and other appropriate business material.

52 BUSINESS ENGLISH (ENGLISH FOR SECRETARIES) (3 units)  
Three hours lecture.  
Prerequisites: Level B ENGL classification. One year of high school typing or OFF S 50a or 250a. A student who classifies at ENGL Level C must pass ENGL 60 with at least a "C" in order to enroll in SEC T 52.  
A review of basic English usage, including a complete review of the parts of speech and sentence structure; spelling and vocabulary; punctuation rules and application; rules applicable to division of words, expression of numbers, abbreviations and capitalization. Course fulfills three units of the English requirement for graduation. Should be taken prior to SEC T 10 (Business Correspondence).

54 GREGG SHORTHAND REVIEW (2 units)  
Three hours lecture, plus two hours practice per week in Audio-Visual Laboratory.  
Prerequisites: Completion of one of the following: SEC T 20a with a "D"; two or three semesters of high school shorthand with a "C" or a "D"; completion of two years of high school shorthand with "D's". Level A ENGL classification.  
A review of Gregg shorthand theory with practice in dictation and transcription. Grammar, punctuation, spelling and business vocabulary are stressed. Concurrent enrollment in a typing course is required. Recommended for persons who have not had shorthand for two years or more.

55a–55b SHORTHAND SKILL MAINTENANCE (1–1 unit)  
One hour lecture and two hours practice in Audio-Visual Laboratory.  
Prerequisite: Eligibility for SEC T 20c or completion of SEC T 20c.  
Designed to help students maintain their shorthand and transcription skills while they are not taking a more advanced shorthand skill development course. Credit or no credit.

60 OFFICE PROCEDURES (3 units)  
Three hours lecture.  
Prerequisites: Eligibility for Level A ENGL; OFF S 50b or 250b (may be taken concurrently). Not open to first-semester freshmen.  
Provides training in such specialized secretarial-clerical duties as utilizing postal, shipping, telephone and telegraphic services; preparing business letters; arranging and reporting meetings; handling publicity; planning and selection of office equipment, furniture and supplies; processing data; banking services; secretarial accounting; filing systems and procedures; and preparing materials for various types of reproduction processes.

62 SECRETARIAL WORD PROCESSING (3 units)  
Three hours per week.  
Prerequisite: Level A ENGL classification.  
A study of the modern word processing/administrative support concepts in the organization, operation, and control of office functions. Emphasis will be given to the secretary's dual role as an administrative assistant or as a correspondence secretary. Study will also include the role of management and career opportunities in the word processing field. Such understanding of the concepts and principles are necessary for an individual for entry into and success in newly developed positions in the field of word processing. (Formerly Word Processing 50.)
63 WORD PROCESSING/OFFICE SIMULATION (3 units)  
Three hours lecture plus twenty hours by arrangement per semester.  
Prerequisites: Level A ENGL classification: Typing 45 NWAM; SEC T 62 (may be taken concurrently).  
This course will provide the student with experience in a simulated office environment.  
The class will be operated as a word processing center using dictating, transcribing, and power typewriting equipment. During the semester, the students will work according to a rotation schedule, in the various positions involved in the simulation. (Formerly Word Processing 51)

65 LEGAL MACHINE TRANSCRIPTION (1.5 units)  
Three hours lecture for nine weeks.  
Prerequisites: OFF S 65 with a grade of "C" or higher and SEC T 66.  
Designed to develop understanding of legal terminology and skill in transcribing legal correspondence, contracts, agreements, etc. Normally offered the second nine weeks of the semester.

66 LEGAL OFFICE PROCEDURES (4 units)  
Three hours lecture, one hour MT/ST training and two hours typing laboratory per week.  
Prerequisites: Completion of or concurrent enrollment in SEC T 20h, OFF S 50h, and BUS 55 or BUS A 18a.  
Designed to explore the various aspects of the job of a legal secretary. Training is given in the dictation and typing of legal forms and documents, legal filing procedures, and legal office record keeping. Knowledge and usage of legal terminology is developed. Training will be given on the automatic typewriter using the principle of magnetic-stored material.

67 LEGAL SHORTHAND (3 units)  
Three hours lecture.  
Prerequisites: SEC T 66 and 20c (may be taken concurrently).  
Designed to develop skill in writing and transcribing legal terms, foreign-language expressions, correspondence, legal papers and court documents. Spelling, punctuation, pronunciation and meaning of the language of the law are stressed.

252 BUSINESS ENGLISH (ENGLISH FOR SECRETARIES) (3 units)  
Self-paced open entry/open exit. For description see SEC T 52.

254a GREGG SHORTHAND REVIEW (2 units)  
Self-paced, minimum of five hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.  
Prerequisites: Completion of Gregg shorthand theory; ability to type at least 30 words per minute accurately; ability to transcribe at the typewriter with 90% accuracy material dictated at 50 words per minute.  
A review of Gregg shorthand theory with practice in dictation and transcription. Dictation speed range from 50 to 80 words a minute. Grammar, punctuation, spelling, and business vocabulary will be stressed. Individual Progress Method (IPM) encourages the student to complete the course content at a pace that fits his/her individual learning style. Dictation will be taken from specially prepared tapes designed to improve the student’s shorthand skill. Equivalent to SEC T 54.

254b GREGG SHORTHAND REVIEW (2 units)  
Self-paced, minimum of five hours per week in the Individualized Business Education Center (IBEC); open entry/open exit.  
Prerequisites: Completion of Gregg shorthand theory; ability to type at least 30 words per minute accurately; ability to transcribe at the typewriter with 95% accuracy material dictated at 60 words per minute.  
A review of Gregg shorthand theory with practice in dictation and transcription. Dictation speeds range from 70 to 100 words a minute. Grammar, punctuation, spelling, and business vocabulary will be stressed. Individual Progress Method (IPM) encourages the student to complete the course content at a pace that fits his/her individual learning style. Dictation will be taken from specially prepared tapes designed to improve the student’s shorthand skill.

Cabinet Making  
See Industrial Education

CHEMISTRY  
(Chem)

1a GENERAL INORGANIC CHEMISTRY (5 units)  
Three hours lecture and six hours laboratory.  
Prerequisites: High school chemistry and algebra with grades of "B" or higher OR CHEM 2a with grade of "C" or higher.  
A standard course in general college chemistry with emphasis on elementary quantitative methods in the laboratory. The lecture covers atomic and molecular structure, bonding, theory of gases, stoichiometry, chemical equilibrium, oxidation-reduction, chemical energetics and electro-chemistry.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b</td>
<td>QUANTITATIVE ANALYSIS (5 units)</td>
<td></td>
<td>Three hours lecture and six hours laboratory.</td>
<td>Continuation of general chemistry with special emphasis on the theory and technique of qualitative analysis.</td>
</tr>
<tr>
<td>F S</td>
<td>INTRODUCTORY GENERAL CHEMISTRY (5 units)</td>
<td></td>
<td>Three hours lecture and six hours laboratory.</td>
<td>The principles and applications of general college chemistry. Designed for liberal arts, physical education and some nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM 1a. Not open for credit to those who have had CHEM 1a.</td>
</tr>
<tr>
<td>5 QUANTITATIVE ANALYSIS (4 units)</td>
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<td></td>
<td></td>
<td>The theory and practice of quantitative chemical analysis. Includes volumetric, gravimetric and basic instrumental methods. Primarily for students majoring in chemistry or the medical sciences.</td>
</tr>
<tr>
<td>8 ORGANIC CHEMISTRY (3 units)</td>
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<td></td>
<td></td>
<td>A study of petroleum products, alcohols, ethers, carbohydrates, fats, proteins, dyes, explosives, medicines and many other related carbon compounds. For students interested in chemical industries, medicine, dentistry, pharmacy, engineering, clinical work, public health and in related biological fields of plant and animal sciences.</td>
</tr>
<tr>
<td>9 ORGANIC CHEMISTRY LABORATORY (3 units)</td>
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<td></td>
<td></td>
<td>Two three hour lecture-lab periods per week. Prerequisite: CHEM 8 (may be taken concurrently). Covers basic techniques and a number of aliphatic and aromatic preparations, properties and reactions.</td>
</tr>
<tr>
<td>10 CHEMISTRY IN THE REAL WORLD (3 units)</td>
<td></td>
<td></td>
<td></td>
<td>Three hours lecture. Prerequisite: None. Deals with the applied, practical aspects of chemistry which can be used by a person in his/her own daily life. It will emphasize common products and current problems which are chemically related.</td>
</tr>
<tr>
<td>11 ORGANIC, ORGANIC AND BIOCHEMISTRY (5 units)</td>
<td>F S</td>
<td></td>
<td>Three hours lecture, six hours laboratory. Prerequisite: MATH A or equivalent. An Elementary laboratory course in the principles and applications of inorganic, organic and biochemistry designed for non-science majors to meet general education requirements in the physical science area. Not applicable as a prerequisite for CHEM 1a.</td>
<td></td>
</tr>
<tr>
<td>20 ORGANIC CHEMISTRY (5 units)</td>
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<td></td>
<td></td>
<td>Three hours lecture and six hours laboratory. Prerequisite: CHEM 1a with a grade of &quot;C&quot; or higher. A study of the general theory of organic chemistry and the chemistry of aliphatic compounds. Primarily for chemistry and engineering students who plan on further organic chemistry courses.</td>
</tr>
<tr>
<td>21 GENERAL CHEMISTRY (4 units)</td>
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<td></td>
<td></td>
<td>Three hours lecture and three hours laboratory. Prerequisites: MATH A and CHEM 2a or equivalents. (One year of high school algebra and one year of high school chemistry). A general chemistry course covering fundamental principles of atomic structure, bonding, chemical equations, states of matter, solutions, colloids and equilibrium. Not open to students with credit in CHEM 1a.</td>
</tr>
<tr>
<td>26 GENERAL AND ORGANIC CHEMISTRY (4 units)</td>
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<td></td>
<td></td>
<td>Three hours lecture and three hours laboratory. Prerequisite: CHEM 21 or 1a. Continuation of CHEM 21. Electrochemistry, some metals and non-metals, nuclear chemistry and fundamentals of organic chemistry with application to agricultural and industrial processes.</td>
</tr>
<tr>
<td>50a-f INTRODUCTION TO CHEMICAL TECHNOLOGY</td>
<td></td>
<td></td>
<td></td>
<td>(0.5 unit each module. Total 3 units.) Nine hours lecture per half unit. Prerequisite: None. Course designed for both the working chemical technician and for those intending to seek employment in that field. It covers basic chemical principles and emphasizes their application in the laboratory. Although it does not include laboratory, demonstrations are used frequently.</td>
</tr>
</tbody>
</table>

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**Child Development**

**See Family and Consumer Education**
COMMUNICATIONS

The Communications Department offers courses which provide lower division training for Broadcasting, Journalism, Special Education, and Speech majors who expect to transfer at the end of their sophomore year as well as instruction leading to occupational competence in mass communication and sign language.

Students expecting to transfer to an upper division institution with a major in Broadcasting, Journalism, Special Education, and Speech, should consult the catalog of the college or university of their choice for required and/or recommended courses.

BROADCASTING (BRDCS)

- **1a SURVEY OF RADIO BROADCASTING (3 units)**
  Three hours lecture.
  Prerequisite: None.
  The student will have a general understanding of the radio broadcast industry through a survey of its historical development, social importance and basic production techniques. (Formerly BRDCS 30a)

- **1b SURVEY OF TELEVISION BROADCASTING (3 units)**
  Three hours lecture.
  Prerequisite: None.
  The student will have a general understanding of the television broadcast industry through a survey of its historical development, social importance, equipment and production techniques. (Formerly BRDCS 30b.)

- **2 RADIO PRODUCTION (3 units)**
  Three hours lecture and two hours lab by arrangement.
  Prerequisite: None.
  The student will understand and operate radio broadcasting equipment in commercial AM and FM radio stations; master theories of sales, traffic, copy writing and announcing; operate college radio station (KBCC). Not to be taken concurrently with BRDCS 27. Manual dexterity and acceptable vocal articulation are required. (Formerly BRDCS 31.)

- **3 TV NEWS: WRITING AND PRODUCTION (3 units)**
  Three hours lecture and studio.
  Prerequisite: None.
  The student will have a general knowledge of the field of television, newswriting and production. Through theoretical and practical application, the student will understand writing, filming, editing and broadcasting television news. (Formerly JRNL 7.)

- **7a INTRODUCTION TO PUBLIC ACCESS TELEVISION (3 units)**
  Three hours lecture/laboratory.
  Prerequisite: None.
  The student will be skilled in basic single-camera video production and editing techniques, and will understand the philosophy of public access as a communications technique operating through cable television. Manual dexterity is required. (Formerly JRNL 57.)

- **7b ADVANCED PUBLIC ACCESS TELEVISION (3 units)**
  Three hours lecture/laboratory.
  Prerequisite: BRDCS 7a or equivalent.
  The student will be skilled in video production techniques, functioning in a special effects production crew, cablecasting and operating a public access center. He will contribute regularly to public access programming for local cablecasting. Manual dexterity is required.

- **27a RADIO STATION OPERATION (1–2 units per semester. Limit of 8 units.)**
  Three hours lab by arrangement for one unit. Six hours lab by arrangement for two units.
  Prerequisite: None.
  The student will be involved in various phases of radio station operation (except newscasting) while operating the campus radio station. Manual dexterity and acceptable vocal articulation are required. Cannot be taken concurrently with BRDCS 2. (Formerly DRAMA 27Br.)

- **27b RADIO NEWS: WRITING AND PRODUCTION (1–2 units per semester. Limit of 8 units.)**
  Three hours laboratory by arrangement for one unit. Six hours laboratory by arrangement for two units.
  Prerequisite: None. Acceptable vocal articulation is required.
  The student will have a general knowledge of the field of radio newswriting and production. Through theoretical and practical application, the student will understand writing, taping, editing and broadcasting radio news. Field experiences are with KBCC, the campus radio station. (Formerly JRNL 7.)

- **60 RADIOTELEPHONE LICENSE REVIEW (1.5 units)**
  Three hours lecture per week for 9 weeks.
  Prerequisite: None.
  The student will learn Federal Communication Commission rules and regulations, operation requirements and procedures. The student will be prepared to take the F.C.C. Third Class Radio Telephone License examination, with broadcast endorsement.
JOURNALISM (JRNL)

1 COMMUNICATION AND THE MASS MEDIA (3 units) F S
Three hours lecture.
Prerequisite: None.
The student will have a general understanding and appreciation of the mass media through an assessment of its historical development and its role in contemporary American society. The student will be exposed to the various media (print, phonograph records, film, radio and television) including a study of minority publications. The student will recognize the media's social, cultural and educational impact. (Formerly JRNL 5.)

2a INTRODUCTION TO NEWSPAPER JOURNALISM (3 units) F
Three hours lecture.
Prerequisite: None.
The student will have an understanding of the fundamentals of newspaper operation, organization and structure of news stories, techniques of interviewing, as well as the language and style of print media. (Formerly JRNL 1.)

2b ADVANCED NEWSPAPER JOURNALISM (3 units) S
Three hours lecture.
Prerequisite: JRNL 2a.
The student will develop skills in writing feature stories, editorials, a personalized column and reviews of events. He will be familiar with newspaper production procedures and he will contribute regularly to one or more of the student publications. (Formerly JRNL 2.)

3 INTRODUCTION TO MAGAZINE JOURNALISM (3 units) F S
Three hours lecture.
Prerequisite: JRNL 1 or 2a.
The course will give the student a survey of the magazine publishing field. The student will understand how magazines are put together; what the problems are in publishing; why magazines fail; and what the future in the industry is. Specific magazines will be analyzed and students will outline and research a story for submission to a specific market.

15 PHOTOJOURNALISM (3 units) F S
Two hours lecture/discussion; two hours supervised lab.
Prerequisite: None.
The student will have an understanding and appreciation of the historical development, social importance and basic techniques of photojournalism. The student will be exposed to practical laboratory experience and will be able to apply technical skills to the printed media. All students must have a rangefinder type focusing camera. No instamatic or polaroid cameras are acceptable. (Formerly JRNL 15a.)

27a NEWSROOM OPERATION (RIP) (2-2-2 units) F S
One hour lecture, three hours laboratory.
Prerequisite: JRNL 2a.
Offers the student practice in reporting, headline writing, copy editing, proof reading and layout procedures. This class is designed as a production practicum; all students on the newspaper major staff should be enrolled. (Formerly JRNL 11ab.)

27b MAGAZINE PRODUCTION (RACONTEUR & RENEGUIDE) (2-2-2 units) F S
One hour lecture, three hours laboratory.
Prerequisite: JRNL 3 or 15.
Offers the student practice in magazine style writing, headline writing, photo taking, editing and sizing, copy and proof-reading, and layout techniques as applied to the RACONTEUR, RENEGUIDE and other student publication magazines. This course is a practical laboratory operation, and all students on the magazine staffs should be enrolled. (Formerly JRNL 11cd.)

27c NEWSROOM OPERATION (DOWNTOWN NEWS) (2-2-2 units) F S
One hour lecture, three hours laboratory.
Prerequisite: JRNL 2a.
Offers the student practice in reporting, headline writing, copy editing, proof reading and layout procedures. This class is designed as a production practicum; all students on the newspaper major staff should be enrolled. (Formerly JRNL 230ab.)

27d MAGAZINE PRODUCTION (CAMPUS ARTS) (2-2-2-2 units) F S
One hour lecture, three hours laboratory.
Prerequisite: None.
The student will have practical experience in Campus Arts magazine production and publishing. The student will be involved in planning the magazine, acquiring the literary and artistic materials, evaluating the content, preparing the design and magazine layout, and handling the publicity and distribution for the completed magazine, Campus Arts.

27e PUBLICATIONS PHOTOGRAPHY LABORATORY (2-2-2 units) F S
One hour lecture and three hours laboratory.
Prerequisite: JRNL 15 or equivalent experience.
Offers the student practice in photo taking, editing and sizing, caption writing as applied to student publications. This course is a practical laboratory operation, and all photo journalism students on student publication staffs should be enrolled.
42ab FREE-LANCE WRITING (1.5-1.5 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
Each student will read and analyze the various styles of writing in today's publishing market, and receive practical instruction and experience in contacting editors and in writing for publication. Not open to students with credit in ENGL 42ab.

51 COMMUNITY PUBLIC RELATIONS (1 unit)  
Eighteen hours per semester.  
Prerequisite: None.  
The student will become familiar with local media expectations for lay people who will be regularly contributing information to the media. He will learn how to prepare material for print and/or broadcast for both print and electronic media.

SPECIAL EDUCATION (SP ED)

1 INTRODUCTION TO SIGNING EXACT ENGLISH (SEE) (3 units)  
Three hours lecture.  
Prerequisite: None.  
The student will acquire a basic command of SEE which is the visual mode of representing English. Receptive and expressive skills are developed. SEE is the basic sign language being taught to deaf and hearing impaired children in educational systems.

2 ADVANCED SIGNING EXACT ENGLISH (SEE) (3 units)  
Three hours lecture.  
Prerequisite: SP ED 1.  
The student will acquire an advanced command of SEE. Continued development of receptive and expressive skills; fingerspelling, number signing. This course provides the opportunity for a student to expand vocabulary and become proficient at Signing Exact English.

11 BEGINNING AMESLAN (3 units)  
Three hours lecture.  
Prerequisite: None.  
The student will understand the fundamentals of American Sign Language (AMESLAN or A.S.L.). The student will be introduced to the history, basic grammatical structure, techniques of signing and non-verbal aspects of American Sign Language.

12 INTERMEDIATE AMESLAN (3 units)  
Three hours lecture.  
Prerequisite: SP ED 11.  
The student will develop fluency in American Sign Language. Emphasis will be placed on a conceptual accuracy, numerical proficiency, and a mastery of the manual alphabet. Receptive and expressive skills will be refined. Students will be introduced to idiomatic expressions.

13 ADVANCED AMESLAN (3 units)  
Three hours lecture.  
Prerequisite: SP ED 11 and 12.  
The student will be able to identify and correctly translate English idioms into sign language. The emphasis is on advanced fluency in Ameslan. The goal of this course is to provide the student with total command of AMESLAN.

33 SURVEY OF SPECIAL EDUCATION (3 units)  
Three hours lecture.  
Prerequisite: CH DV 13a or equivalent.  
A survey of the field of special education emphasizing the role of the special education assistant in the training of the exceptional child. Includes an introduction to the types of handicapped children, the function of the assistant as a teacher assistant, and the vocational opportunities available. Field trips to educational facilities will be an important part of the instructional program. Not open to students with credit in CH DV 33.

34 PRINCIPLES AND PRACTICES IN SPECIAL EDUCATION (3 units)  
Two hours lecture, four hours laboratory per week.  
Prerequisite: CH DV 33/SP ED 33.  
An opportunity is provided for the student to observe and participate as an assistant with trainable mentally retarded, educable mentally retarded, physically and orthopedic handicapped and educational handicapped programs at public and private schools and mental institutions. Not open to students with credit in CH DV 34.

35a UNDERSTANDING THE EMOTIONALLY HANDICAPPED CHILD (1 unit)  
Two hours lecture for nine weeks.  
Prerequisite: None.  
Understanding of emotional disturbance in children, concentrating on the preschool-age and the early grade school-age child. Study of the utilization of appropriate methods of intervention for those emotionally disturbed children, both preschool-age and early grade school-age. Not open to students with credit in CH DV 35a.
• **35b UNDERSTANDING THE LEARNING DISABLED CHILD** (1 unit)  
  Two hours lecture for nine weeks.  
  Prerequisite: None.  
  Types of learning disabilities of children will be recognized. Students will learn remedial  
  techniques used with students having learning disabilities. Not open to students with  
  credit in CH DV 35b.

• **35c UNDERSTANDING THE DEVELOPMENTALLY DISABLED CHILD** (1 unit)  
  Two hours lecture for nine weeks.  
  Prerequisite: None.  
  Presents the history of mental retardation and defines mental retardation in relation to  
  child development. Studies teaching techniques for levels of retarded children. Not open  
  to students with credit in CH DV 35c.

• **35d UNDERSTANDING THE PHYSICALLY HANDICAPPED CHILD** (1 unit)  
  Two hours lecture for nine weeks.  
  Prerequisite: None.  
  Studies physical handicaps of children and the characteristics of those handicaps. Explain  
  mainstreaming and those responsibilities of teacher, parent, and specialist. Not open to  
  students with credit in CH DV 35d.

• **40a NORMAL SPEECH AND LANGUAGE DEVELOPMENT** (1.5 units)  
  Twenty-seven hours lecture.  
  Prerequisite: None.  
  The course may be taken on a credit/no credit basis. The student will better understand  
  normal speech and language development in children. Sounds, words, syntax, and  
  semantics will be assessed. This course is designed for prospective education and  
  communication majors, school teachers and teacher aides, and parents, but is open to any  
  interested person. This class will not substitute for similar upper division courses at four  
  year schools but can be transferred for elective credit.

• **40b SPEECH AND LANGUAGE DEVELOPMENT DISORDERS** (1.5 units)  
  Twenty-seven hours lecture.  
  Prerequisite: None.  
  This course may be taken on a credit/no credit basis. The student will understand  
  abnormal language development in children. The student will be familiar with a variety of  
  communication disorders: stuttering, cleft palate, cerebral palsy and aphasia, as well as  
  those caused by impaired hearing. This course is designed for prospective education and  
  communication majors, school teachers, and teacher aides, and parents of children with  
  speech disorders, but is open to any interested persons. This class will not substitute for  
  similar upper division courses at four year schools but can be transferred for elective  
  credit.

• **40L SPEECH AND LANGUAGE DEVELOPMENT LABORATORY**  
  (1 unit. Limit 4 units.)  
  Three hours laboratory.  
  Prerequisite: SPED 40a or 40b (may be taken concurrently).  
  The student will observe Kern County Special Education instructors and speech  
  correctionists in clinical situations and assist them with case loads. (Formerly SPCH 40L.)

• **41 PSYCHOLOGICAL ASPECTS OF DISABILITY** (3 units)  
  Three hours lecture.  
  Prerequisite: None.  
  The student will acquire a basic understanding of the socio-psychological adjustment  
  problems as a result of disability. Case studies will be stressed in order to provide a  
  realistic and practical orientation for the course.

• **50 INTRODUCTION TO BRAILLE** (2 units)  
  Two hours lecture.  
  Prerequisite: None.  
  The development of skills in grade 2 English braille, with some exposure to Nemeth Code,  
  format, and foreign languages. Emphasis is on transcribing print copy to braille and  
  underlining braille copy with print. Multimedia laboratory, as necessary.

• **53 INTERPRETING AND SIGNING EXACT ENGLISH** (3 units)  
  Three hours lecture/demonstration.  
  Prerequisite: SP ED 1 and 2.  
  A course to develop the skills of an interpreter for the deaf using Signing Exact English. A  
  general orientation of interpreting presented and the various roles and functions of an  
  interpreter explored.

• **55 CULTURAL AWARENESS OF THE DEAF** (1.5 units)  
  Three hours lecture.  
  Prerequisite: None.  
  The student will better understand the cultural aspects related to the deaf population.  
  Areas involving language barrier, rights, discrimination and every day obstacles faced by a  
  silent minority will be discussed.

• **63 INTERPRETING AMESLAN** (3 units)  
  Three hours lecture/demonstration.  
  Prerequisite: SP ED 11 and 12.  
  Develops the skills of an interpreter for the deaf using American Sign Language. The  
  student will concentrate on interpreting a sight based language, as opposed to a sound  
  based language.
65 SIGN AND SONG (3 units)
Three hours lecture/laboratory.
Prerequisite: SP ED 11.
The student will be able to provide hearing impaired persons with a conceptualization of
music in its lyrical and instrumental whole. The student will increase his/her AMESLAN
Vocabulary, clarity of signs, ability to analyze songs and literature.

SPEECH
(SPCH)

1 SPEECH COMMUNICATION (3 units) F S
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
The student will be able to compose and present original speeches for a variety of speech
situations in a laboratory setting and will evaluate the speeches of others. The student will
select a topic of his own choosing; gather materials; research the subject area; organize,
develop, and present his ideas to an audience.

2 LIVING COMMUNICATION (3 units)
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Practical application of modern theories on communication to everyday life. The student
will engage in activities illuminating communication with the self, others, groups, plants,
and animals. The student will better understand the process of communication and its
component parts.

3 HEALTH SCIENCES COMMUNICATION (3 units) S
Three hours lecture.
Prerequisite: Eligibility for SPCH 1.
Covers oral and nonverbal training in maintaining successful mass and interpersonal
communication with patients, clients, members of patients' families, co-workers and
work-engendered contacts.

4 DISCUSSION AND CONFERENCE LEADERSHIP (3 units)
Three hours lecture.
Prerequisite: Eligibility for SPCH 1.
Designed to train students in group processes. Instruction in the preparation and
presentation of public discussions, panel, symposium, lecture-forum, and parliamentary
order. Training in the collection of materials, organization of information, analysis, and
criticism.

5 ARGUMENTATION AND DEBATE (3 units) F
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
The student will have a general understanding of both the theoretical and practical
aspects of legal argumentation and public debate. The student will be involved in the
areas of research, analysis, organization and delivery through mock court and public
debate situations. Pre-law, political science and history students are encouraged to enroll.

18 VOICE AND DICTION (3 units) F S
Three hours lecture/laboratory.
Prerequisite: None.
The student will develop skills in voice production, be able to use an acceptable standard
of pronunciation, improve his speech habits. He will appreciate our changing speech
patterns and understand the role of the basic speech mechanism in respiration, phonation,
resonation, and articulation.

21 ORAL INTERPRETATION (3 units) S
Three hours per week.
Prerequisite: Eligibility for SPCH 1.
Acquisition of techniques of effective oral reading. Major interpretation projects include
exercises in prose, poetry, drama and readers' theatre. Training in selection of literature,
analysis, techniques of visible and audible expression. Particularly recommended for
speech, English, education and drama majors.

22 READERS' THEATRE (3 units) S
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Readers' Theatre is a course in the oral performance of literature. Instruction in solo
interpretation, simple reading productions, staged reading productions, composite as well
as chamber and story reading productions will be provided. Students will have an
opportunity to select, adapt, script, cast, direct, and perform in a variety of productions
in which the emphasis is placed on the literary text. Students will develop proficiency in
oral group readings.

27 INTERCOLLEGIATE SPEECH COMPETITION
(1–2 units per semester. Limit 8 units.)
Three hours laboratory by arrangement for one unit. Six hours laboratory by
arrangement for two units.
Prerequisite: Eligibility for SPCH 1.
Training in and application of various speech forms for intercollegiate forensic
competition and community speaking. Intensive practice in prepared and limited
preparation speaking events including debate, impromptu, extemporaneous, persuasive,
informative, and humorous speaking, oral interpretation of literature, readers' theatre,
duet interpretation, and communication analysis.
30. PERSUASION IN A DEMOCRATIC SOCIETY
(1.5-1.5-1.5-1.5 units)
Three hours lecture-discussion per week. Four nine week sections as described below.
Prerequisite: Eligibility for SPCH 1.

31a FREEDOM OF EXPRESSION
One of a series of nine week courses under the broad title of Persuasion in a Democratic Society. Designed to analyze and evaluate the constitutional guarantees of freedom of expression with emphasis on freedom of the press. Emphasizes mass communication in a contemporary society.

31b FREEDOM OF SPEECH
One of a series of nine week courses under the broad title of Persuasion in a Democratic Society. Designed to analyze and evaluate the constitutional guarantees of freedom of speech. Emphasizes verbal communication in contemporary society.

31c THE RHETORIC OF AGITATION
A critical analysis of the techniques of agitation and revolution with emphasis on the rhetoric of conflict in both formal and informal discourse; the values and dangers of agitation including its effect on decision making in a democratic society.

31d INTERRACIAL COMMUNICATION
Analysis of basic communication problems within a multi-racial society with emphasis on face-to-face interracial difficulties. Includes an involvement with cultural conflict and confrontation.

32 WOMEN AND THE STRUGGLE FOR EQUAL RIGHTS (3 units)
Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
A study of the women's rights movement in the United States from its beginnings to and including the present day. Not open to students with credit in WN ST 21.

33 THE WOMAN MANAGER IN A CHANGING ENVIRONMENT (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: None.
The student will better understand the demands of a managerial position. Interpersonal communication, assertiveness training, leadership skills, conflict resolution and stress reduction will all be assessed as they relate to an individual's success and failure in management. The student will better understand managerial expectations in both theoretical and practical matters. Not open to students with credit in WN ST 25.

34 STORY TELLING AND CHILDREN'S LITERATURE (3 units)
Three hours lecture/field practice by arrangement.
Prerequisite: Eligibility for ENGL 1a.
The student will understand and apply effective storytelling and oral reading skills. The student will demonstrate a familiarity with standard works, authors and illustrators of children's books and children's literature. Not open to students with credit in ENGL 35.

42 PARLIAMENTARY PROCEDURE (1 unit)
18 hours per semester.
Prerequisite: None.
The student will have a general understanding of the procedures used in parliamentary procedure. The student will understand the basic principles, the history of the rules of procedure, the manner in which to conduct a meeting, and the process of writing a constitution, by-laws, and rules. Designed for anyone interested in learning the accepted standards for conducting a meeting.

51 GENERAL SPEECH (3 units)
Three hours per week.
Prerequisite: None.
The student will acquire skills in a variety of oral communication situations. Listening, non-verbal, telephone, interviewing, informative and persuasive techniques will be emphasized. Practical communication experiences on both group and individual levels will be studied.

53 ORAL AND NONVERBAL COMMUNICATION (3 units)
Three hours per week.
Prerequisite: None.
The study and practice of speech as applied to business and personal life. A review of basic speech principles; parliamentary law; refinement of skills in interpersonal communication and group processes. Not open to students with credit in MGMT 53.

55 COMMUNICATION EXPOSURE (1 unit)
The course may be taken for a grade, or on credit-no credit basis. This course is not repeatable for credit.
Three hours per week for six weeks.
Prerequisite: None.
The student will gain a general understanding of personal interaction in communication. The student will overcome stage fright, gain self-confidence in speaking situations, and increase his/her ability to verbalize.
58a–58b–58c–58d SPEAKING ENGLISH AS A SECOND LANGUAGE
(2–2–2–2 units)

One hour lecture and two hours laboratory.
Prerequisite: Eligibility for ENGL 58a or ability to read English at 6th grade level.
The student will learn pronunciation and intonation of general American English. Both
speaking and listening skills are emphasized. A student who has completed English as a
second language in high school should enroll in Level A. Students who have studied
English and spoken some English in their native country may enroll in Level B or higher.
The instructor will assist with proper level placement. English 58a or 58b is recommended
and may be taken concurrently.

Computer, Science
See Business
CORRECTIONAL ADMINISTRATION
(COR A)

1 INTRODUCTION TO CORRECTIONAL ADMINISTRATION (3 units) F S

Three hours lecture.
Prerequisite: None.
A survey of the historical, theoretical and philosophical explanations of criminal
behavior. The judicial system and its relationship to the criminal offender as well as
modern techniques of controlling crime. Surveys the correctional field with emphasis on
treatment and rehabilitation methods and facilities.

2 INSTITUTIONAL SUPERVISION OF OFFENDERS (3 units) F S

Three hours lecture.
Prerequisite: None.
Surveys the basic knowledge and skills required of a corrections worker including
supervision of inmates, security procedures, enforcement of institutional rules and
procedures and other policies and procedures relating to correctional supervision.
Designed primarily for the pre-service student and in-service personnel with less than one
year of experience.

3 FUNDAMENTALS OF INTERVIEWING AND COUNSELING (3 units) S

Three hours lecture.
Prerequisite: None.
A survey of the basic theories and techniques employed in interviewing and counseling by
the correctional worker; traces the development of a meaningful relationship between
client and caseworker; explores the various types of counseling employed with a
correctional relationship, including group counseling.

4 FUNDAMENTALS OF PROBATION AND PAROLE (3 units)

Three hours lecture.
Prerequisite: None.
Theory and techniques of probation and parole supervision in the State of California,
including historical development with emphasis on decision making by the correctional
officer.

7 JUVENILE DELINQUENCY (3 units)

Three hours lecture.
Prerequisite: SOC 1 or PSYCH 1a.
A course for students, parents, social workers and teachers pertaining to the problems of
the maladjusted juvenile, ranging in type from the potential delinquent to the
institutionalized offender. Not open to students with credit in SOC 7.

52 CORRECTIONAL OFFICER BASIC TRAINING (3 units) S

Fifty-three hours lecture.
Prerequisite: None.
Covers a number of basic training subjects designed to develop an understanding and
working knowledge of the duties and responsibilities of the correctional officer.
53 CORRECTIONAL PROGRAM SUPERVISOR TRAINING (1–3 units)

One to three hours lecture.
Prerequisite: None.
Covers a number of basic training subjects designed to develop an understanding and working knowledge of the duties and responsibilities of the Correctional Program Supervisor. As examples, Correctional Casework Reporting, Adult Authority and Parole Release Referral, Civil Addict Annual Review.

60a CRIMINAL EVIDENCE FOR CORRECTIONAL WORKERS (1 unit)

Two hours lecture per week for nine weeks.
Prerequisite: None.
Areas covered will be the kinds and degrees of evidence utilized by the individual in his role of Correctional Worker, including the rules governing the admissibility of evidence in court.

60b INTERVIEWING TECHNIQUES FOR CORRECTIONAL WORKERS (1 unit)

Two hours lecture per week for nine weeks.
Prerequisite: None.
Designed to investigate theories and techniques of interviewing.

60c GROUP COUNSELING TECHNIQUES FOR CORRECTIONAL PERSONNEL (1 unit)

Two hours per week for nine weeks.
Prerequisite: None.
For in-service correctional or related agency personnel designed, from a group leaders point-of-view, to trace the development of a group from the first through later meetings. Examines resources, skills and techniques necessary to become a group leader.

60d JUVENILE INSTITUTIONAL STAFF ORIENTATION (SECURITY) (1 unit)

Two hours lecture discussion per week for nine weeks.
Prerequisite: None.
An in-service course designed to orient and train new juvenile institutional line and/or staff personnel, and to develop the expertise and create a reawarness of currently employed personnel in selected topic areas.

61 CORRECTIONAL LAW (3 units)

Three hours lecture per week.
Prerequisite: None.
Designed to familiarize students with the Penal Code Sections and case law related to the control of prisoners in various state correctional facilities; crimes committed by prisoners; crimes committed by visitors and civilian employees; arrest, search and seizure procedures governing prisoners in correctional institutions.

Cosmetology
See Family and Consumer Education

COUNSELING (COUNS)

● 1 EDUCATIONAL PLANNING (0.5 units)

One hour per week for the first nine weeks.
Prerequisite: None.
Designed to assist students to become acquainted with college requirements and to help them in making educational plans. (Formerly ORIEN 1.)

● 2 STUDY SKILLS (0.5 units)

One hour per week for nine weeks.
Prerequisite: None.
The various study approaches which are applicable to different types of college assignments, procedures of note taking, skills in the use of the library in researching for term papers and examination competence. (Formerly ORIEN 2.)

● 3 CAREER PLANNING (0.5 units)

One hour per week for nine weeks.
Prerequisite: None.
Designed to assist students in making realistic occupational choices. Students complete a battery of educational-vocational tests, make a careful study of related occupational information, and are assisted by counselors in an evaluation of the results. (Formerly ORIEN 3.)

● 5 CONTEMPORARY CONCERNS SEMINAR (0.5 to 1 unit. Limit 4 units)

One hour per week for nine weeks.
Prerequisite: None.
Discussions of current topics of interest and significance to students. The topics are to be timely and relevant to student needs. (Formerly ORIEN 5.)

● 11 CAREER AND LIFE PLANNING (1 unit)

Three hours per week for six weeks.
Prerequisite: None.
A concentrated exposure to ways of successfully dealing with problems of college study and college life. (Formerly ORIEN 11.)
12 CAREER DEVELOPMENT/SELF-ASSESSMENT (1 unit)

One hour lecture.
Prerequisite: None.
Students' attention will be focused on values and the decision making process. Students will examine personal, career, and educational alternatives through structured exercises and self assessment instruments. Learning and using planning skills will enable this examination. Students will learn that considered decisions maximize personal choice. (Formerly ORIEN 12.)

13 CAREER DEVELOPMENT/JOB SEARCHING (1 unit)

One hour lecture.
Prerequisite: None.
Focuses on the process of career decision-making and career development as a life-long endeavor. Emphasis will be given on how to improve one's job hunting efforts. (Formerly ORIEN 13.)

46 LEADERSHIP TRAINING IN GROUP PROCESSES (2 units)

Two hours per week.
Prerequisites: PSYCH 1a or equivalent. PSYCH 44 is recommended.
Development of skills of human interaction, exploration and utilization of inner resources, awareness of self and the development of the art of listening and reflecting. (Formerly PSYCH 46.)

47 PRACTICUM IN GROUP PROCESSES (1–2 units)

Three to six hours per week.
Prerequisite: COUNS 46 (may be taken concurrently).
Development of skills of human interaction, exploration and utilization of inner resources, awareness of self and the art of listening and reflecting. (Formerly PSYCH 47.)

48 PEER COUNSELING TECHNIQUES (3 units)

Three hours per week.
Prerequisites: COUNS 1 or 11, and PSYCH 44 (may be taken concurrently).
The student will develop an understanding and awareness of self as he or she relates to others. The student will develop an understanding of the ways of establishing a helping relationship. The student will demonstrate both communication skills and information processes involved in the helping relationship. (Formerly PSYCH 48.)

49a–49b–49c–49d PRACTICUM IN PEER COUNSELING
(1–2 units. Limit 8 units.)

Three to six hours lecture.
Prerequisite: COUNS 48 and 49a (may be taken concurrently) prerequisite to b, c, d.
The practical application of "Peer Counseling"; actual day to day working with students in helping relationship involving the handling of test data, services and resources of college and community. (Formerly PSYCH 49a–49b–49c–49d.)
ECONOMICS (ECON)

1 PRINCIPLES OF ECONOMICS-MICRO (3 units) F S SS
Three hours lecture.
Prerequisite: None.
An introduction to the principles of economic analysis and decision making from the viewpoint of the individual consumer, worker, and firm. Emphasis upon the price system allocation of resources, distribution of income, supply and demand analysis, the structure of American industry, and applications to current economic policy and problems. (Formerly ECON 1a.)

2 PRINCIPLES OF ECONOMICS-MACRO (3 units) F S SS
Three hours lecture.
Prerequisite: None.
An introduction to the principles of economic analysis and decision making from the viewpoint of the society. Emphasis upon national income analysis, unemployment, inflation, economic growth, fiscal and monetary policies, and applications to current economic policy and problems. (Formerly ECON 1b.)

10 INTRODUCTION TO ECONOMICS (3 units) F S
Three hours lecture.
Prerequisite: None.
One semester course combining topics discussed in ECON 1 and 2, covered in a less technical manner emphasizing current economic problems. Serves as a survey course in economics for non-economics and non-business majors.

ENGINEERING (ENGR)

1a-1b PLANE SURVEYING (3–3 units) F S
Two hours lecture and three hours laboratory.
Prerequisite: MATH C and one year of mechanical drawing or IND 30a. ENGL 1a is prerequisite to 1b.
Principles and practice of surveying including use of tape, level, transit, alidade; calculation of traverse, areas, volumes, curves; triangulation, stadia and plane table mapping; engineering astronomy; public land surveys.

17 INTRODUCTION TO ELECTRICAL CIRCUITS AND ELECTRONIC DEVICES (3 units) S
Three hours lecture and one hour discussion.
Prerequisites: PHYSC 1c and MATH C.
The fundamentals of circuit analysis; physical electronics of semiconductor and vacuum devices; basic amplifying and switching circuits; typical electrical systems.

22 ENGINEERING GRAPHICS (2 units) F
One hour lecture and three hours laboratory.
Prerequisites: One year of high school mechanical drawing or IND 30a and MATH C (may be taken concurrently), or higher.
Orthographic projection, isometric and oblique sketching and drawing, primary and secondary auxiliary views, dimensioning, detail and assembly drawings, graphic computation, plotting experimental data and empirical equations, nomographs.

23 DESCRIPTIVE GEOMETRY (2 units) S
Six hours lecture and drafting.
Prerequisite: MATH 6a (may be taken concurrently) and two years of high school mechanical drawing or IND 30a.
Fundamental principles of descriptive geometry involving points, lines and planes in intersections, development and graphic calculus with emphasis on the application of these principles to various engineering problems.

36 ENGINEERING MECHANICS – STATICS (3 units) S
Three hours lecture.
Prerequisites: PHYSC 1a and MATH 6a.
Principles of statics and their application to engineering problems. Equilibrium of two-dimensional and three-dimensional systems of particles and rigid bodies. Concentrated and distributed force systems, structures, friction, virtual work and moments of inertia. For pre-engineering students.
ENGLISH

Bakersfield College administers an English Classification Test to all entering students which classifies them on four levels, according to ability and background in English.

English 64, 65, 67 and 68, intended for Career Education students who do not plan to transfer to a senior institution, are suitable for students on levels A, B, and C.

English 60 and 1 are intended primarily for students who plan to transfer to a senior institution, but are open to Career Education students and are recommended for Career Education students in Business. A grade of C or better in English 60 permits a student to enroll in English 1, and a student who does exceptionally well in English 60 may be advanced directly to English 1a. A grade of C or better in English 1 permits a student to enroll in English 1a.

Students who are classified level C may enroll in either English 60 or 64 but may be required to supplement either course with Learning Skills 101 or Learning Skills 201.

Students may be reclassified upward when they are found to have been misclassified.

Three units of the Learning Skills requirement for graduation with an AA degree may be earned in any of these English courses: 1a, 1, 60 and 64. Three units of the Humanities requirement for graduation with an AA degree may be earned in any of these English courses: 1b, 5a, 10, 11, 12 (two units only), 18ab, 20a, 20b, 21, 23, 27, 28, 30a, 30b, 31a, 31b, 36, 41abcd, 45, 65 and 67.

Three units of the Learning Skills requirement and three units of the six-unit English requirement for graduation may be earned in Reading 62.

ENGLISH (ENGL)

1a EXPOSITORY COMPOSITION (3 units)

Three hours lecture.
Prerequisite: Level A classification or a grade of "C" in ENGL 1.
Expository reading and writing. Review of paragraph development; training in the organization of the whole paper; study of style. The skills of library research and research paper writing. Readings in expository essays used as models for writing exposition.
65 MODERN CULTURE AND THE POPULAR ARTS (3 units)
Three hours lecture.
Prerequisite: None.
A study of the cultural and social aspects of life as reflected by the popular arts, including the place and nature of art, the quality of life in our society, and cultural change. A general education course which includes study of art, music, literature, and philosophy. Recommended but not limited to students who are unlikely to take other courses in the humanities. Fulfills three units of the English-Speech requirement for the A.A. Degree.

67abc READINGS IN MODERN FICTION (3 units)
67a–67b–67c (1–1–1) equivalent to 67abc.
Three hours lecture.
Prerequisite: None.
Readings in modern short stories, short novels and novels. Emphasis on reading for personal satisfaction and understanding rather than on technical explanations involving extensive literary terminology. Recommended for Career Education students. Fulfills three units of English-Speech requirement for A.A. degree. May be offered in six-week modules for one unit each or as a complete semester three-unit course.

68a–68b–68c READINGS IN AMERICAN LITERATURE (1–1–1 units)
Three hours lecture.
Prerequisite: None.
A chronological treatment of selected figures in American literature. Emphasis on reading for understanding and personal satisfaction rather than on literary history or literary terminology. Recommended for Career Education students. Either ENGL 68 or 67, but not both, may count toward the English-Speech requirement for the A.A. degree. May be offered in six-week modules for one unit each or as a complete semester three-unit course.

71a–71b–71c SPECIAL GRAMMAR REVIEW (1–1–1 unit) F S
Three hours lecture and discussion for six weeks.
Prerequisite: None.
The student will be prepared to function more effectively in ENGL 60 as a result of having received a comprehensive review of the parts of speech and their function, of commonly used sentence patterns, of common contraction and their homonymic possessive pronoun forms, of capitalization, hyphenation, punctuation, and possessive noun forms.

260 BASIC USAGE AND GRAMMAR (3 units)
Self-paced open entry/open exit. For description, see ENGL 60.

264 LANGUAGE STUDY AND VOCABULARY DEVELOPMENT (3 units)
Self-paced open entry/open exit. For description, see ENGL 64.

LEVEL C COURSES

Students who classify level C may enroll in either English 60 or English 64 but may be required to supplement either course with Learning Skills 101. Level C students who plan to transfer to a senior institution may find it advantageous to take English 64 or Reading 62 before enrolling in English 60.

LITERATURE COURSES

1b INTRODUCTION TO TYPES OF LITERATURE (3 units) F S SS
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Readings in prose fiction, drama and poetry. Continued instruction in Composition. Emphasis on understanding theme and artistic purpose in literature. Introduction to basic literary terms and to elementary methods of criticism.

5a–5b SURVEY OF ENGLISH LITERATURE TO 1900 (3–3 units) F S
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
The history of English literature with emphasis on the critical reading of representative works from Chaucer to 1900. Required for students whose major or minor is English and recommended for students who desire to extend their knowledge of the literary tradition.

9 CLASSICAL THEATRE ON FILM (3 units)
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
A study of drama and literature by European authors of the 17th, 18th, and 19th centuries to be developed around a selection of 13 televised plays augmented by textual materials and readings.

10 PLAYS OF SHAKESPEARE (3 units) S
Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
A general introduction to Shakespeare, Shakespearian Drama, and the Elizabethan Age. The course focuses on the significant aspects of Shakespeare's life in relation to his work, and it concentrates on the study of a select few of the plays which have become masterpieces of English literature. The objective of the course is to develop in students a minimal understanding and appreciation of Shakespeare's unique contribution to the English speaking nations and the entire world.
11 TWENTIETH CENTURY DRAMA (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
An average of three hours per week of lecture, discussion, and viewing of plays on film. A study of Contemporary World Drama, utilizing American and European film productions. Emphasizes dramatic literature and concentrates on past and present theatre movements as well as the merits of the play.

12 MODERN SHORT FICTION (2 units)  
Two hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
The student will read a selection of modern short stories and learn to identify such elements as plot, character, theme, point of view, tone and symbol. He will develop an understanding of the evolution of the modern story. He will practice writing about personal reactions and objective analyses.

18a AUTOBIOGRAPHIES AND BIOGRAPHIES OF MEN AND WOMEN (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
Each student will read, analyze and discuss honest and self-revealing writings of individuals of varied interests and backgrounds. Angela Davis, Thomas Wolfe, Tennessee Williams, Virginia Woolf, Joan Baez, Dylan Thomas, Jean-Paul Sartre, Sylvia Plath, Charlie Chaplin...are a few of the people the class will learn to know. After finding his own style and "voice," the student will write his own autobiography and join the group of diary and journal keepers who share their lives with the public.

18b AUTOBIOGRAPHIES AND BIOGRAPHIES OF MEN AND WOMEN (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
Each student will read, analyze, and discuss selected excerpts and full-length biographical writings of certain famous or noteworthy individuals—e.g., Samuel Pepys, James Boswell, Samuel Johnson, Benjamin Franklin, Herman Melville, Mark Twain, William Shakespeare, Emily Dickinson, Ernest Hemingway, Errol Flynn, Clark Gable, Marilyn Monroe. The course goal will be for students to learn, through an indepth study of selected biographical writings, how biography and autobiography function as art forms.

20a–20b WORLD LITERATURE (3–3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
A selection of major works from the literature of the world. Recommended for students preparing to teach in the elementary grades to fulfill the requirement in literature. Also recommended as an elective for English and other majors.

21 BLACK LITERATURE (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
The study of the Black Experience through literature. The contribution of noted Black authors in prose, poetry and drama.

23a–23b WOMEN IN LITERATURE (3–3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
Women in Literature: Virgin, Demon, Goddess, Temptress, Child, Nymph and Mother; these are the mythical types of the women in literature. Views the role of the woman as a character type, the woman as writer, and the woman as critic. Selected readings include both male and female writers. Central to the course is a consideration of the question, "Can a woman have an identity exclusive of the male-female relationship?" Not open to students with credit in WN ST 23a–23b.

27 THE BIBLE AS LITERATURE (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
A literature course which discusses the poetry and prose of the Bible, especially the Old Testament. It includes lectures, discussions and dramatic readings.

28 CLASSICAL MYTHOLOGY (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
Designed to acquaint the student with the body of Greek and Roman myths and to consider the various ways these myths survive in our culture today.

30a–30b SURVEY OF AMERICAN LITERATURE (3–3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a. 30a is not prerequisite to 30b.  
A study of the most notable American authors from the Revolutionary period to the present with emphasis on the intrinsic values of the literature. Recommended as an elective for majors in any of the humanities, in history or in education.

31a LATIN AMERICAN AND MEXICAN LITERATURE (3 units)  
Three hours lecture.  
Prerequisite: Eligibility for ENGL 1a.  
A survey of the literature of Mexico and Latin America. Introduces the most representative works of Mexican and Latin American writers. Special emphasis on works that best reflect the spirit of social and political change in Mexico and the rest of Latin America. Not open to students with credit in CH ST 31a.
• 31b CHICANO LITERATURE (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
A bilingual (Spanish-English) analysis and criticism of Chicano literature in the United States. Introduces the contemporary literature of the Chicano and its literary and content development. Emphasizes the Chicano novel, short story, essay, poetry, and teatro. Not open to students with credit in CH ST 31b.

• 34 INTRODUCTION TO BOOKS AND LIBRARIES (2 units) F S

Two hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Designed to increase efficiency in finding information, broaden knowledge of library resources, develop skills in compiling bibliographies and suggest methods of personal enrichment through books and library materials.

• 35 STORY TELLING AND CHILDREN'S LITERATURE (3 units) S

Three hours lecture/field practice by arrangement.
Prerequisite: Eligibility for ENGL 1a.
Emphasizes oral presentation of literature for kindergarten, elementary and intermediate grades as well as evaluation, selection, reading and discussion of the literature.

• 36 AMERICAN INDIAN LITERATURE (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Through the Indian's traditional legends, chants and oratory and through his current writing, helps the student appreciate the Indian's role in U.S. life. Will also help the student understand major values of a culture other than his own but contributing to his own, and work cooperatively with persons of another race.

• 41a–41b–41c–41d INTRODUCTION TO CREATIVE WRITING (2–2–2–2 units) F S

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Reading, writing and analysis of professional and student writing.

• 42ab FREE-LANCE WRITING (1.5–1.5 units) F S

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
Each student will read and analyze the various styles of writing in today's publishing market, and receive practical instruction and experience in contacting editors and in writing for publications. Not open to students with credit in JRNL 42ab.

• 45 AMERICAN FICTION SINCE 1920 (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
A study of the most notable American authors from 1920 to the present. Emphasis on the values of the literature and the influence of particular historical events on writings. Recommended for any student interested in this period in America as represented in its fiction.

SPECIAL SERVICE COURSES

S SPELLING IMPROVEMENT (0.5 unit) F S

One hour lecture.
A course in basic spelling, including the use of the apostrophe. Open to all students.

58a ENGLISH FOR THE FOREIGN BORN (3 units)

Three hours lecture.
Prerequisite: None.
Designed for students who have learned English as a second language but are not adequately prepared to do the work assigned in regular college English classes. Speech 58a is also recommended and may be taken concurrently.

58b ENGLISH FOR THE FOREIGN BORN (3 units)

Three hours lecture.
Prerequisite: None.
Designed for students who have completed ENGL 58a but are in need of further instruction and practice in English. It is recommended that this course be taken concurrently with another English course, preferably of Level A or B. Speech 58b is also recommended and may be taken concurrently.

70 TWENTIETH CENTURY DRAMA (0 units) F S

Three hours per week.
Prerequisite: None.
An average of three hours per week of lecture, discussion and viewing of plays on film. A study of Contemporary World drama, utilizing American and European film productions. Emphasizes dramatic literature and concentrates on past and present theatre movements as well as the merits of the play.

90 READINGS IN LITERATURE (0 units) F S

Three hours lecture.
Prerequisite: None.
Readings in fiction, non-fiction, and poetry. Emphasis on reading for personal satisfaction and the relationship between literature and the human experience.
RELATED COURSES

Career Communications (C COM)
Learning Skills (LRN S)
Reading (RDNG)

ENVIRONMENT

(ENVIR)

1 ENVIRONMENT AND MAN (3 units)

Two hours lecture and one hour lecture/discussion.
Prerequisite: None.
Major consideration will be given to the process which will sustain humans on this planet.
Topics to include man's environment as seen from the biological, geological, historical,
religious, social, economic and philosophical points of view.

ETHNIC STUDIES

The Ethnic Studies curriculum consists of three areas: Black Studies, Chicano Studies and
related courses which have special significance to racial minorities and to the general
student. These courses will normally be listed within the appropriate subject areas.

Several universities and state colleges have established ethnic studies majors. These may
be specialized as Black or Chicano studies or combined as Ethnic studies. Students
intending to transfer in these major areas should consult the catalog of the transfer
institution. At Bakersfield College a student completing 18 units in either Black or
Chicano studies in combination with related courses will qualify as a major in that area.

70a–70b MINORITY STUDENTS AND CULTURAL DIFFERENCES (0.5–0.5 units)

Eight to twelve hours lecture per semester. Credit-No Credit.
Prerequisite: None.
The student will gain knowledge and understanding of behavioral patterns and social
values of Black and Chicano minority children and minority communities and also gain
knowledge of the concepts, themes, and issues of ethnic minority cultures.

BLACK STUDIES

The Black Studies Program as part of Ethnic Studies is designed to promote academic
awareness and develop a sensitivity to the historical, cultural and social development of
this particular group of people. Courses are described below.

ANTH 5a AFRICAN ANTHROPOLOGY (3 units)

Three hours lecture.
Prerequisite: None.
The descriptive study of representative cultures of Sub-Saharan Africa. Analysis and
systematic description of social structure including community, kinship and family, social
institutions and organization, industries and arts in view of environment, historical
development and functional interrelation. Includes methods of ethnologic research and
evaluation as represented by readings in text.

ART 22 AFRICAN AND AFRO–AMERICAN ART (3 units)

Three hours lecture-discussion.
Prerequisite: None.
A survey of the black tradition in artifacts, sculpture and painting from prehistoric times
in Africa to the twentieth century in Africa and America. Begins with early cave paintings
and covers the arts of families, tribes and peoples through the colonization period and
ends with a survey of contemporary Africans and Afro-Americans.

ENGL 21 BLACK LITERATURE (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
The study of the Black Experience through literature. The contribution of noted Black
authors in prose, poetry and drama.

HIST 20a–20b BLACK HISTORY (3–3 units)

Three hours lecture.
Prerequisite: None.
A survey of the role and contribution of the Black American to United States history. A
history of the Blacks in America from African beginnings to the present. Fulfills core
requirements in the U.S. Constitution, American history and institutions and California
state and local government. 20a includes a study of the U.S. Constitution and federal
government. 20b includes a study of California state and local government.
**CHICANO STUDIES (CH ST)**

- **31b CHICANO LITERATURE (3 units)**
  Three hours lecture.
  Prerequisite: Eligibility for ENGL 1a.
  A bilingual (Spanish-English) analysis and criticism of Chicano literature in the United States. Introduces the student to the contemporary literature of the Chicano and it's literary and content development. Emphasizes the Chicano novel, short story, essay, poetry and teatro. Not open to students with credit in ENGL 31b.

- **32a MEXICAN ART AND ART OF THE AMERICAS (3 units) F S**
  Three hours lecture.
  Prerequisite: None.
  A survey of the sculpture, architecture, paintings and artifacts produced by the Indian of the Americas. Geographically it covers the art of Peru, Central America, the southwest U.S., the northwest regions of the U.S. and Canada, and Alaska, with the major emphasis on Mexico. With the ending of the Indian empires, the colonial period is given brief coverage and emphasis then shifts to the contributions being made by the most important South American, Mexican and Mexican-American artists of 20th century thought in painting, sculpture and architecture. Not open to students with credit in ART 32a.

- **32b MEXICAN AND CHICANO ART (3 units)**
  Three hours lecture and discussion.
  Prerequisite: None.
  Deals with art history from 1521 to the present in Mexico and the United States. Emphasizes modern Mexican and Chicano artists who have worked in the 20th century. Explores panorama of relationships between art, history, religion, philosophy, and respective art movements. Develops historical and cultural awareness in the students of the contributions to our society by the people of Mexican and Chicano heritage in both the United States and Mexico. Contemporary Chicano art styles will also be explored. Not open to students with credit in ART 32b.

- **33a BILINGUAL CREATIVE WRITING (3 units)**
  Three hours lecture and discussion.
  Prerequisite: None.
  A Bilingual creative writing course focusing on the usage of Spanish, English, and Spanglish (Calo) emphasizes the examination of various contemporary bilingual Chicano Writers, the impact the Chicano Movement has had on them, and the students' own creative skills in writing. Not open to students with credit in ENGL 33a.

- **30a HISTORY OF MEXICO (3 units) F S**
  Three hours lecture.
  Prerequisite: None.
  A survey of the history of Mexico from pre-Columbian times to the present. Includes an examination of Mexico’s relations with the United States, with an emphasis on the influence of the United States constitution on Mexico’s political history. Fulfills code requirements in U.S. Constitution, American history and institutions. Not open to students with credit in HIST 30a.

- **30b HISTORY OF THE CHICANOS (3 units)**
  Three hours lecture.
  Prerequisite: None.
  A survey of the history of the Chicanos, with an emphasis on the development of the Southwest. The course reviews Pre-Columbian contributions to civilization, then examines in depth the conquest of the Aztecs by the Spanish, the settlement and development of the Southwest, the Mexican War of 1846-1848, the effects of the Mexican Revolution, the contributions of Mexicans/Chicanos to history, and issues affecting Chicanos today. Fulfills code requirements in California state and local governments. Not open to students with credit in HIST 30b.

- **31a LATIN AMERICAN AND MEXICAN LITERATURE (3 units)**
  Three hours lecture.
  Prerequisite: Eligibility for ENGL 1a.
  A survey course of the literature of Mexico and Latin America. The student will be introduced to the most representative works of Mexican and Latin American writers. Emphasizes works that best reflect the spirit of social and political change in Mexico, and the rest of Latin America. Not open to students with credit in ENGL 31a.
34 MEXICAN AND CHICANO MUSIC (3 units)

Three hours lecture and discussion.
Prerequisites: None, however, bilingualism is recommended.
An historical survey of Mexican music from Pre-Columbian Culture to the present. Analysis of diverse styles of music in Mexico and in the Chicano Community. Emphasis on the music of Mexico, composition of leading Mexican composers, aspects of indigenous and Mexican/Chicano folk music. Course may be offered either as a regular class or through Coordinated Instructional Systems, using broadcast media, with seminars and examinations by arrangement. Not open to students with credit in MUSIC 34.

35 MEXICAN PHILOSOPHY (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A study of the background of Mexican philosophic thought as derived from Spanish and Indian sources and refined by Mexican writers. The influences of Spanish and Indian institutions on philosophic writers such as Samuel Ramos, Octavio Paz and Joe Vasconcellos are read and reported upon. The philosophy of Chicanismo is read and discussed. Not open to students with credit in PHIL 35.

36 SOCIOLOGY OF THE CHICANO (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A survey course covering the socioeconomic characteristics of the Chicano community. A study of the inter-relationships of Chicano cultural groups and society as a whole. Not open to students with credit in SOC 36.

36L FIELDWORK IN CHICANO SOCIOLOGY (2 units)

Two hours lecture-seminar and four hours field work.
Prerequisite: None.
Provides student with field work experience in the Chicano community in a variety of settings such as school (tutoring), working with mentally ill, the aged, juvenile hall, and adult prisoners. Includes weekly seminars on the Chicano. May be repeated for a total of 8 units. Not open to students with credit in SOC 36L.

38a–38b–38c TOPICS IN BILINGUAL EDUCATION (1–1–1 unit)

Three hours lecture and discussion for six weeks.
Prerequisite: None.
Develops history and cultural awareness for teachers and aides of the contributions to our society by people of Mexican-American/Chicano heritage in both Mexico and the United States. Provides an opportunity to examine current and traditional children's stories, fables, legends and fairy tales. Introduces teachers and aides to the method of teaching reading in Spanish with sound—symbol relationship. Not open to students with credit in PSYCH 38a–38b–38c.

44 DEVELOPING INTERPERSONAL SKILLS (3 units)

Three hours lecture.
Prerequisite: None.
Introduction of principles of human interaction numerous and changing environments through small group discussion. Emphasizes the Chicano experience, and such topics as cultural identity, cultural survival mechanisms, identity crisis, inter-racial relationships, and the influence of culture on personality development are discussed. Not open to students with credit in PSYCH 44 or WN ST 44.

45 MEXICAN CULTURE AND HERITAGE (3–12 units)

Research and study of Mexican Culture and Heritage.
Prerequisite: Student should be bilingual.
This course is part of a Chicano Studies International Exchange Program that provides the opportunity for students to do intensive research on the historical and cultural roots of the Chicano in Mexico. The course concentrates on the social sciences and the humanities and provides an enriched intercultural experience for students studying in Mexico. Seminars, independent study and research, educational excursions to museums, archaeological zones, historical sites, villages, cultural events, etc., will be provided to expose students to field work and research.

RELATED ETHNIC STUDIES COURSES

ANTH 5c NORTH AMERICAN INDIANS (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A descriptive study of Indian culture and societies in North America. Discussion of proto-historic, historic and modern culture groups. Designed to provide an understanding and appreciation of the Indians of North America.

ENGL 36 AMERICAN INDIAN LITERATURE (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a.
The student will understand major values of a culture other than his own but contributing to his own. He will improve his skills in oral and written communication as well as the reading of literature. He will be better able to work cooperatively with persons of another race than his own. He will appreciate the role of the American Indian in U.S. life, through his traditional legends, chants and oratory and his current writing.
ETH S 1 INTRODUCTION TO ETHNIC STUDIES (3 units)
Three hours per week.
Prerequisite: None.
A cross-cultural course designed to expose students to the two major cultural groups of the United States and the Southwest. A survey of the role of Blacks and Chicanos in America from their beginnings in Africa and pre-Columbian Mexico to the present.

HIST 33 THE ASIAN AMERICAN EXPERIENCE (3 units)
Three hours lecture/discussion.
Prerequisite: None.
The student will acquire a historical and sociological background of the Asian experiences in the United States from the immigration period to the present. Asian American students can acquire a better understanding of their cultural history, and non-Asian students can discover the contributions of an important cultural group generally neglected in traditional history courses. The student will learn the cultural heritage of China, the Philippine Islands, and Japan in order to better understand Asian Americans and the major problems and issues they encountered in this country as, for example, racism, immigration quotas, naturalization and property-ownership laws, and evacuation and relocation.

HIST 36 HISTORY OF NATIVE AMERICANS (3 units)
Three hours lecture per week.
Prerequisite: None.
A study of the American Indian including a survey of origins, customs and religion. The main emphasis will be on encounter with white expansion and United States governmental policies.

MUSIC 40 MUSIC OF MINORITY CULTURES (2 units)
Two hours per week.
Prerequisite: None.
An exploration of the origins, development and current trends of ethnic music in the United States: primarily Black, Mexican-American and American Indian.

PSYCH 28 PSYCHOLOGY OF ETHNIC IDENTITY (3 units)
Three hours lecture
Prerequisite: None.
A theoretical approach to the study of the psychological, cultural and biological factors relating to ethnic differences in contemporary society. Investigation of racial and social class differences in economic opportunity, social mobility, attitude formation and attitude changes. Also includes an examination of the sources of prejudice, inter-group relations and the minority reaction to dominance.

SOC 21 RACE AND POVERTY IN AMERICAN LIFE (3 units)
Three hours lecture.
Prerequisite: None.
An examination of race and poverty with special emphasis on the need for improved communication between the representatives of society, such as teachers, social workers and policemen and the poor. The attitudes of professionals in these fields will be examined. Attempts to sensitize students toward seeking solutions to these problems. Although the course is concerned with urban and rural poverty generally, it will also examine local poverty in considerable detail. When appropriate, outside experts will lecture on their specialties.

SPCH 31 PERSUASION IN A DEMOCRATIC SOCIETY
(1.5-1.5 units)
Three hours lecture-discussion per week. Four nine week sections as described below.
Prerequisite: Eligibility for SPCH 1a.

31a FREEDOM OF EXPRESSION
One of a series of nine week courses under the broad title of Persuasion in a Democratic Society. Designed to analyze and evaluate the constitutional guarantees of freedom of the press. Emphasizes mass communication in a contemporary society.

31b FREEDOM OF SPEECH
One of a series of nine week courses under the broad title of Persuasion in a Democratic Society. Designed to analyze and evaluate the constitutional guarantees of freedom of speech. Emphasizes verbal communication in contemporary society.

31c THE RHETORIC OF AGITATION
A critical analysis of the techniques of agitation and revolution with emphasis on the rhetoric of conflict in both formal and informal discourse; the values and dangers of agitation including its effect on decision making in a democratic society.

31d INTERRACIAL COMMUNICATION
Analysis of basic communication problems within a multi-racial society with emphasis on face-to-face interracial difficulties. Includes an involvement with cultural conflict and confrontation.
CHILD DEVELOPMENT (CH DV)

10 CHILD GROWTH AND DEVELOPMENT (3 units)  
Three hours lecture.  
Prerequisite: None.  
Developmental characteristics during infancy, toddlerhood, preschool, middle years, and adolescence with emphasis at each stage of physical and motor development, perceptual cognitive language development, emotional-social development, including self-concept and personality development.

13a CHILD DEVELOPMENT (3 units)  
Three hours lecture and one hour laboratory in the Child Study Center.  
Prerequisite: Level C English or higher. Open to both men and women.  
Studies the child from prenatal life through adolescence with major emphasis on the years between two and five.

13b CHILD DEVELOPMENT (3 units)  
Three hours lecture and one hour observation.  
Prerequisite: CH DV 13a.  
Studies the child from middle childhood through adolescence.

33 SURVEY OF SPECIAL EDUCATION (3 units)  
Three hours lecture.  
Prerequisite: CH DV 13a or equivalent.  
A survey of the field of special education emphasizing the role of the special education assistant in the training of the exceptional child. Includes an introduction to the types of handicapped children, the function of the assistant as a teacher assistant, and the vocational opportunities available. Field trips to educational facilities will be an important part of the instructional program. Not open to students with credit in SP ED 33.

34 PRINCIPLES AND PRACTICES IN SPECIAL EDUCATION (3 units)  
Two hours lecture and four hours laboratory.  
Prerequisite: CH DV 33 or SP ED 33.  
An opportunity is provided for the student to observe and participate as an assistant with trainable mentally retarded, educable mentally retarded, physically and orthopedic handicapped and educational handicapped programs at public and private schools and mental institutions. Not open to students with credit in SP ED 34.
35a UNDERSTANDING THE EMOTIONALLY HANDICAPPED CHILD  F S SS  
(1 unit) 
Two hours lecture for nine weeks.  
Prerequisite: None.  
Understanding of emotional disturbance in children concentrating on the preschool-age and the early grade school-age child. Study of the utilization of appropriate methods of intervention for those emotionally disturbed children, both preschool-age and early grade school-age. Not open to students with credit in SP ED 35a.  

35b UNDERSTANDING THE LEARNING DISABLED CHILD  F S SS  
(1 unit) 
Two hours lecture for nine weeks.  
Prerequisite: None.  
Types of learning disabilities of children will be recognized. Students will learn remedial techniques used with students having learning disabilities. Not open to students with credit in SP ED 35b.  

35c UNDERSTANDING THE DEVELOPMENTALLY DISABLED CHILD  F S SS  
(1 unit) 
Two hours lecture for nine weeks.  
Prerequisite: None.  
Presents the history of mental retardation and defines mental retardation in relation to child development. Studies teaching techniques for levels of retarded children. Not open to students with credit in SP ED 35c.  

35d UNDERSTANDING THE PHYSICALLY HANDICAPPED CHILD  F S SS  
(1 unit) 
Two hours lecture for nine weeks.  
Prerequisite: None.  
Studies physical handicaps of children and the characteristics of those handicaps. Explain mainstreaming and those responsibilities of teacher, parent, and specialist. Not open to students with credit in SP ED 35d.  

39 INFANT/TODDLER CARE AND DEVELOPMENT  F S  
(2 units)  
Two hours lecture  
Prerequisite: None.  
A review of infant development: physical, emotional, social and intellectual. Principles of infant care, including nutrition and health practices and curriculum.  

39L LABORATORY FOR INFANT/TODDLER CARE AND DEVELOPMENT  F S  
(1 unit)  
Four hours laboratory per week.  
Prerequisite: CH DV 39 suggested be taken concurrently. CH DV 13a is recommended. Laboratory experience in observing and caring for infants and toddlers in the child study centers.  

40a CREATIVE ACTIVITIES FOR CHILDREN  F S  
(2 units)  
Two hours lecture, demonstration and laboratory.  
Prerequisite: None.  
A presentation of arts and crafts and play materials for preschool children.  

40b MUSIC ACTIVITIES FOR CHILDREN  F S  
(2 units)  
Two hours lecture/demonstration.  
Prerequisite: None.  
A presentation of music, teaching techniques and materials appropriate to the growth and development of preschool children.  

40c MOVEMENT ACTIVITIES FOR CHILDREN  F S  
(2 units)  
Two hours lecture.  
Prerequisite: None.  
Movement activities designed to develop gross and fine motor movement and increase self confidence for preschool children.  

41a PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD  F S  
(2 units)  
Two hours lecture.  
Prerequisite: CH DV 13a.  
Development of insight into and understanding of the principles and practices used in early childhood programs.  

41a LABORATORY FOR PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD  F S  
(2 units)  
Six hours laboratory.  
Prerequisite: CH DV 13a, 41a (may be taken concurrently). Supervised laboratory experience in observing and working with children two to five years of age in the Child Study Centers.  

41b PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD  F S  
(2 units)  
Two hours lecture.  
Prerequisite: CH DV 41a with a grade of “C” or higher.  
This course is designed to teach an understanding of the nursery school program. It will include planning of learning experiences and teaching materials appropriate to the physical, mental, social and emotional growth of the young child.
41b LABORATORY FOR PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD (2 units)

Six hours laboratory.
Prerequisite: CH DV 13b (may be taken concurrently).
Designed to teach an understanding of the nursery school program. It will include participating, planning and implementing teaching techniques in a preschool lab situation.

41c PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD (4 units)

Field Study. Two hours lecture and eight hours laboratory.
Prerequisite: CH DV 41a or 53a or equivalent.
Early childhood programs for children 5 through 8. Designed to give students experience with children above the preschool level. Strongly recommended for those seeking employment in early childhood programs.

42 CHILD, FAMILY AND THE COMMUNITY (3 units)

Three hours lecture.
Prerequisite: CH DV 13a.
Patterns of family living in a democratic society: their implications for people entrusted with the care and education of children and for the community.

43 TECHNIQUES OF PARENT EDUCATION (2 units)

Three hours lecture for twelve weeks.
Prerequisite: None.
Three hours lecture per week concerning the materials and techniques necessary for a viable parent education program, combined with evaluation and discussion of sample parent meetings. Techniques for conducting home visits, group discussions, individual conferences will be discussed. The goal of the program will be to move the parent from parent education toward the skills and confidence necessary to be a parent volunteer in the classroom.

50a LIVING WITH THE ADOLESCENT (2 units)

Two hours lecture.
Prerequisite: None.
Problems of living with the adolescent with particular emphasis on problems of foster children.

51 WORKSHOPS IN CHILD DEVELOPMENT (1 unit)

Two hours lecture, discussion for twelve weeks.
Prerequisite: None.
Studies the child from pre-natal life through adolescence with the major emphasis on practical problems of living with children and adolescents.

53a CURRICULUM FOR EARLY CHILDHOOD PROGRAMS (3 units)

Three hours lecture.
Prerequisite: None.
Introduces appropriate curriculum materials and illustrates methods for their use and practices used in early childhood programs. Designed primarily for people currently working with young children. Not open to students with credit in CH DV 41a-41b.

53b CURRICULUM FOR EARLY CHILDHOOD PROGRAMS (3 units)

Three hours lecture.
Prerequisite: CH DV 53a.
Curriculum materials in language, science, art, music, Sensori-motor explorations, math and cooking activities.

55 ADMINISTRATION OF PROGRAMS FOR YOUNG CHILDREN (3 units)

Three hours lecture.
Prerequisite: None.
Administration of programs for young children including day care centers, private nursery schools and publicly supported programs.

70 TOPICS IN CHILD DEVELOPMENT AND FAMILY STUDIES

(1 unit. Limit of 8 units.)

Two hours lecture for eight weeks.
Prerequisite: None.
Selected topics in child development, emphasizing specialized teaching materials and techniques.

71 WORK WITH YOUNG CHILDREN (6 units)

Two hours lecture and 30 hours laboratory in the Child Study Center per week for seven weeks.
Prerequisite: None.
Development of understanding of young children and of the principles and practices used in early childhood programs. Supervised experiences in working with children in the Child Study Centers.

91 MANAGEMENT OF CHILD DAY CARE HOMES (0 unit)

Eight two-hour sessions.
Prerequisite: None.
Principles of good management and operation of Day Care Homes for children.
CLOTHING
(CLTH)

- **8 SEWING (2 units)**
  - Two hours lecture.
  - Prerequisite: None. CLTH 8L is recommended for concurrent enrollment.
  - An overview of sewing as a creative art and a hobby.

- **8L SEWING LAB (1 unit)**
  - Three hours laboratory.
  - Prerequisite: Concurrent enrollment in CLTH 8.
  - Laboratory instruction in sewing techniques.

- **9a FASHION SEWING (3 units)**
  - Two hours lecture and three hours laboratory.
  - Prerequisite: None. Open to men and women.
  - Fashion sewing involving the latest alteration and construction techniques on garments of student’s choice, using today’s new fabrics and threads.

- **9b ADVANCED FASHION SEWING (3 units)**
  - Two hours lecture and three hours laboratory.
  - Prerequisite: Previous sewing. Open to men and women.
  - Advanced construction procedures, finishing and creative detailing on garments and fabrics of student’s choice. Experimentation with selected fabrics and techniques.

- **50 SEWING WITH KNITS (1 unit)**
  - Three hours lecture and laboratory.
  - Prerequisite: None.
  - Techniques of sewing with knit fabrics.

- **51a BEGINNING SEWING (1 unit)**
  - One hour lecture, two hours laboratory.
  - Prerequisite: None.
  - A presentation of the fundamental sewing techniques.

- **52a INTERMEDIATE CLOTHING (1 unit)**
  - One hour lecture and two hours laboratory.
  - Prerequisite: CLTH 9a or 50 or 51a or equivalent.
  - Dressmaking techniques for the intermediate or advanced student.

- **71a TAILORING MEN'S GARMENTS (2 units)**
  - One hour lecture and two hours laboratory.
  - Prerequisite: CLTH 9ab.
  - The student will complete a man’s ensemble (jacket and vest), fitting psychological and physiological needs of an individual. Pattern alteration and traditional tailoring techniques will be emphasized.

- **71b TAILORING MEN'S GARMENTS (2 units)**
  - One hour lecture and two hours laboratory.
  - Prerequisite: CLTH 9ab.
  - The student will complete a man’s ensemble (pants and shirt), fitting psychological and physiological needs of an individual. Pattern alteration and traditional tailoring techniques will be emphasized.

CONSUMER EDUCATION
(CON E)

- **76 TOPICS IN CONSUMER EDUCATION (0.5–2 units)**
  - A minimum of eight hours lecture per half unit of credit.
  - Prerequisite: None.
  - Current information on selected areas in consumer education, such as budget management, labeling of foods, buying of clothing and textiles, planning balanced diet/meals, consumer buying of food, credit buying and housing.

COSMETOLOGY
(COSMT)

- **50ab BASIC COSMETOLOGY (14 units)**
  - Five hours lecture and 27 hours minimum laboratory per week.
  - Prerequisite: Admission to Cosmetology Program.
  - Basic scientific theory as it applies to cosmetology, anatomy, disorders and diseases of the skin, scalp and hair; physiology of skin, hair and nails; chemistry and electricity, salon management, bacteriology and sterilization. Composition and application of shampoos; finger-waving and shaping; curl construction, including pin curling and sculpture curling; cold waving, including composition and reaction to materials used; color rinses and vegetable tints; manicuring; and basic hair cutting. 50a (7 units–16 hours)–50b (7 units–16 hours) equivalent to 50ab.
50cd INTERMEDIATE COSMETOLOGY (14 units)  F  S  SS

Five hours lecture and 27 hours minimum laboratory per week.
Prerequisite: Completion of COSMT 50ab with a minimum grade of “C.”
Hairstyling and introductory contest work; introduction to salon clinic, permanent hair
coloring, massage and scalp treatments, intermediate permanent waving, hair shaping, hair
straightening. Shaping and styling of wigs, and care of hair pieces. Training and
experience in receptionist duties. 50c (7 units—16 hours)—50d (7 units—16 hours)
equivalent to 50cd.

50ef ADVANCED COSMETOLOGY (14 units)  F  S  SS

Five hours lecture and 27 hours minimum laboratory per week.
Prerequisite: Completion of COSMT 50ab-50cd with at least a “C” grade.
Senior hair styling, contest work, experience in the salon clinic in shampooing, hair
shaping, manicuring, permanent waving, hair coloring, facials, scalp treatments.
Salesmanship practice, advanced theory and 127 hours State Board preparatory testing
practice. 50e (7 units—16 hours)—50f (7 units—16 hours) equivalent to 50ef.

DECORATIVE ARTS
(DEC A)

17 CREATIVE STITCHERY (2 units)  F  S

One hour lecture and two hours laboratory.
Prerequisite: None.
Basic techniques of historical and contemporary stitchery and applique. Individual
projects emphasizing creative design and color for clothing and interiors.

18 QUILTS AND CREATIVE STITCHERY (2 units)  F  S

One hour lecture/two hours laboratory.
Prerequisite: DEC A 17 recommended but not required.
Emphasizes quilts and quilting, macrame, advanced crewel stitchery and other forms of
needlework. Individual projects allow students to broaden concepts of basic techniques.

74 TOPICS IN DECORATIVE ARTS (1—2 units. Limit 8 units)

Minimum of eighteen hours per unit.
Prerequisite: None.

FAMILY STUDIES
(FAM S)

11 FAMILY PORTRAIT: A STUDY OF CONTEMPORARY LIFE STYLES (3 units)  F  S

Three hours lecture via TV.
Prerequisite: None.
A study of marriage and the family and contemporary life styles in our society, with
emphasis on both the physical and emotional health of the individual and the couple.

31 MARRIAGE (3 units)  F  S

Three hours lecture.
Prerequisite: None.
A functional approach to the problems of marriage; the nature and purpose of family life;
special emphasis on the problems of modern courtship, mate selection and the adjustment
problems associated with the early years of marriage. Not open to students with credit in
PSYCH 31.

90 PARENT/CONSUMER EDUCATION (0 units)

Three hours lecture/demonstration.
Prerequisite: None.
Designed to help parents develop a philosophy of parenthood and to become better
consumers.

FASHION MERCHANDISING
(FSH M)

6 TEXTILES (3 units)  F  S

Three hours lecture.
Prerequisite: None.
Study of fibers, yarns, fabric construction and finishes. Serviceability and care related to
consumer needs.

14 GROOMING FOR THE BUSINESS WORLD (2 units)  F  S

Two hours lecture.
Prerequisite: None.
Study and application of principles of color and design in selecting clothing for the
individual and the family. Wardrobe analysis and coordinated planning as related to
individual requirements. Recommended as an elective for all women students.
50a INTRODUCTION TO FASHION MERCHANDISING (3 units) F S
Three hours lecture.
Prerequisite: None.
The world of Fashion Merchandising through the study of fashion vocabulary, movement of fashion, manufacture and distribution of fashions and retail merchandising of fashion.

50b INTRODUCTION TO FASHION MERCHANDISING (3 units) F S
Three hours lecture/discussion.
Prerequisite: None.
The student will be able to understand the fundamental factors that make for the effective distribution of merchandise—retailing, merchandise planning and control; selection, pricing, buying, sales promotion and selling; personnel and organization; store system of operation; accounting; general management policies. He will be aware of descriptions of specific situations or circumstances encountered in the efforts to move goods and services from seller to buyer.

51 COSTUME AND STYLES (2 units) F S
Two hours lecture.
Prerequisite: None.
A survey of historic costume and ornament, with relation to social, economic and political forces; influences on current fashion.

52a–52b FASHION COORDINATING AND DISPLAY (3–3 units) F S
Two hours lecture and four hours laboratory.
Prerequisite: None.
Elements of fashion which make for success in a fashion merchandising enterprise. Store windows and interior display, and their coordination with sales promotion activities are studied. Lighting, display materials, the source of supply, and the art of dramatizing the display are included. 52b emphasizes the role of the fashion coordinator.

53 FASHION SKETCHING (2 units) F S
Three hours lecture/laboratory.
Prerequisite: None.
A beginning sketching course which will enable the student to draw basic fashion proportions of the female and fashion figures. The student will be able to construct details and draw garments on fashion figures.

54a–54b DRESS DESIGN (3–3 units) F S
Two hours lecture and four hours laboratory.
Prerequisites: CLTH 9a, 51a, or skill test in clothing construction. 54a prerequisite to 54b.
Designed to develop an understanding of basic principles of pattern construction; individual standards in garment construction techniques; selection of fabric, color and design; fitting problems and their solutions; self expression in dress design. Open to men and women.

55 MODELING (1 unit) F S
Two hours lecture/demonstration per week for ten weeks.
Prerequisite: None.
Techniques of modeling. Modeling as profession. The role of the model in merchandising fashion.

56 MODELING/PRODUCTION (3 units) F S
Three hours lecture.
Prerequisite: FSH M 55.
Introduces advanced modeling techniques and acquaints the student with various technical (theatrical) skills which will facilitate competence and confidence in various areas of modeling and production. Not open to students with credit in DRAMA 56.

76 TOPICS IN FASHION MERCHANDISING AND CLOTHING (0.5–2 units. Limit 8 units) F S
Minimum of eighteen hours per unit.
Prerequisite: None.
252a–252b FASHION COORDINATING AND DISPLAY (3–3 units) F S
Two hours lecture and four hours laboratory.
Prerequisite: None.
Elements of fashion which make for success in a fashion merchandising enterprise. Store windows and interior display, and their coordination with sales promotion activities are studied. Lighting, display materials, the source of supply, and the art of dramatizing the display are included. 252b emphasizes the role of the fashion coordinator. Open entry/open exit. See FSH M 52a-52b.

254a DRESS DESIGN (3 units) F S
Two hours lecture and four hours laboratory.
Prerequisite: CLTH 9a or equivalent.
Basic principles of pattern construction and pattern alteration based on engineering principles. Open entry/open exit. See FSH M 54a.

254b DRESS DESIGN (3 units) S
Two hours lecture and four hours laboratory.
Prerequisite: FSH M 254a.
Basic principles of pattern construction; individual standards in garment construction techniques; selection of fabric, color and design; fitting problems and their solutions; self expression in dress design. Open to men and women. Open entry/open exit. See FSH M 54b.
10a ART OF COOKING (3 units)
Two hours lecture and three hours laboratory. 
Prerequisite: None. 
Methods of selecting, storing, preparing and serving food to provide maximum nutrition and pleasure in serving and eating.

10b ART OF COOKING (3 units)
Two hours lecture and three hours laboratory. 
Prerequisite: 10a is recommended. 
Cooking for the family, special occasions and specific age groups to meet nutritional needs. Consumer buying as related to mixes and prepared foods.

12 MEALS FOR THE MODERN FAMILY (3 units)
Three hours lecture. 
Prerequisite: None. 
An introduction to foods used by the modern family including shopping for nutrition and economical preparation.

16 MEAL PLANNING (2 units)
One hour lecture and three hours laboratory. 
Prerequisite: None. Open to both men and women. 
Nutritional social aspects of planning, marketing, preparing and serving complete meals for families. Emphasizes management of time, money and energy as well as proper use of equipment and table appointments.

20 MEALS FOR CHILDREN (3 units)
Two hours lecture, three hours laboratory. 
Prerequisite: None. 
Planning meals for children from infancy through adolescence with particular emphasis on meal planning for group programs such as nursery schools, day care centers and schools.

50 INTRODUCTION TO FOOD SERVICE AND WORK ORGANIZATION (3 units) 
Three hours lecture. 
Prerequisite: None. 
Scope, organization and responsibilities of a food service within a health care institution, community care or school feeding program. Job positions at all levels are discussed, including education and experience requirements, personal qualifications, job responsibilities and future opportunities. Basic principles of motion economy and time saving methods as applied to a food service position will be stressed.

51 PRINCIPLES OF FOOD PREPARATION (3 units) 
Two hours lecture and three hours laboratory. 
Prerequisite: Concurrent enrollment in IMGT 53. 
The basic understanding of the principles of food preparation. Laboratory sessions-practice in the preparation of small quantities of food demonstrating these principles. Not open to students with credit in HEC 10a.
52 QUANTITY FOOD PREPARATION (3 units)  
One hour lecture and six hours laboratory.  
Prerequisite: I MGT 51 and 53.  
Quantity food preparation, with emphasis on recipe standardization, effective utilization of equipment and time, and attractive service.

53 SANITATION/SAFETY AND EQUIPMENT (3 units)  
Three hours lecture.  
Prerequisite: None.  
Basic principles of sanitation and safety and the application of these principles to a food service operation. Emphasizes the supervisor's responsibilities in maintaining high standards of these principles. Not open to students with credit in HRMGT 53.

54 FOOD PRODUCTION MANAGEMENT (3 units)  
One hour lecture and six hours laboratory.  
Prerequisite: I MGT 51, 52, 53.  
Includes quantity food preparation with emphasis on food production management, effective management of time and equipment, and the responsibilities of the production supervisor.

55 SUPERVISION AND TRAINING TECHNIQUES (3 units)  
Three hours lecture.  
Prerequisite: None.  
Procedures and problems met by food service operations in developing personnel programs and desirable labor management relationships. Includes the responsibility of selection, placement, orientation, training, counseling, rating and promotion of employees.

56a NUTRITION CARE–HEALTH (2 units)  
One hour lecture and five hours supervised field experience.  
Prerequisite: I MGT 50 and NUTR 10.  
The importance and scope of providing nutritional care in health care or community care facilities. Includes team concept approach and public relations.

56b NUTRITION CARE–FOOD PRODUCTION MANAGEMENT (2 units)  
One hour lecture and five hours supervised field experience.  
Prerequisite: Concurrent enrollment in I MGT 54.  
Emphasizes the importance of an understanding of food production management techniques and the need for planning for it in health care facilities.

57 NUTRITION CARE–SCHOOL RECORDS (3 units)  
One hour lecture and ten hours supervised field experience.  
Prerequisite: I MGT 50 and 52.  
Includes the specifics on record keeping for a school food service program with an emphasis on the needs and requirements of the Federal Type A Lunch.

58a FOOD PURCHASING (2 units)  
Two hours lecture.  
Prerequisite: None.  
The purchasing of food, including market availability, analysis of food quality, and writing of specifications. (Formerly I MGT 59)

58b MENU PLANNING (1 unit)  
One hour lecture.  
Prerequisite: None.  
The planning of satisfying and interesting meals for institutional and commercial food service operations, considering such factors as nutritional adequacy, psychological needs, economic consideration, types of operations, available equipment, and skill of personnel. (Formerly I MGT 58)

59 HEALTH CARE DELIVERY SYSTEMS (2 units)  
Two hours lecture.  
Prerequisite: NUTR 10.  
Discussion of food and nutrition relating to community health and nutrition education and services provided by community organizations.

60 FINANCIAL MANAGEMENT AND CONTROL (3 units)  
Three hours lecture.  
Prerequisite: None.  
Managerial concepts of accounting and cost control applied to the food service industry in order to assume responsibility for planning and control decisions. Includes terms, report forms, financial statements, budgets and operating statements.

61 ORGANIZATIONAL MANAGEMENT (3 units)  
Three hours lecture.  
Prerequisite: I MGT 55.  
The systematic development of concepts and techniques of management and its application to the organization and management of schools, health care and community care food service operations. The coordination of organizational resources to achieve operational goals.

61L ORGANIZATIONAL MANAGEMENT (1 unit)  
Five hours supervised field experience.  
Prerequisite: I MGT 55, 61 (may be taken concurrently).  
Course description same as I MGT 61.
62 FOOD SERVICE SYSTEMS (4 units) F S

Three hours lecture and five hours laboratory.
Prerequisite: I MGT 54, 58 and 60.
The recognition and evaluation of different food service systems, with emphasis on presentation and merchandising of food. How to plan and implement special meal functions.

63 SEMINAR IN INSTITUTIONAL MANAGEMENT (1 unit) F S

One hour lecture.
Prerequisite: NUTR 10 and I MGT 61.
The understanding of the role of technician as a professional, includes awareness of new technological advances, procurement of nutrition resource materials and provisions of nutrition education programs.

63L SEMINAR IN INSTITUTIONAL MANAGEMENT (1 unit) F S

Five hours supervised field experience.
Prerequisite: NUTR 10, I MGT 61, 63 (may be taken concurrently).
Course description same as I MGT 63.

64 MERCHANDISING AND SALES (3 units) F S

Three hours lecture.
Prerequisite: None.
Principles of sales promotion for commercial, industrial or private food service operations. Covers sales promotion, advertising, market analysis and public relations as they relate to the hospitality industry.

70 TOPICS IN INSTITUTIONAL MANAGEMENT (0.5–2 units) F S

One hour lecture and two hours laboratory for eight weeks.
Prerequisite: None.
Current information on selected areas of Institutional Management such as work simplification, preparing school meals, food purchasing, and management principles.

72a EXECUTIVE HOUSEKEEPING (3 units) F S

Three hours lecture and six hours by arrangement.
Prerequisite: None.
The organization and management of housekeeping functions in the hospital, hotel, motel, motor inn or club including keeping records, purchasing and budgets.

72b EXECUTIVE HOUSEKEEPING (3 units) S

Three hours lecture and six hours by arrangement.
Prerequisite: None.
Basic tools and cleaning techniques required in institutional housekeeping. Techniques and measurement devices for housekeeping management. Safety practices, human and non-human factors, fire prevention, emergencies, securities.

265 QUANTITY COOKING FOR RESTAURANTS AND INSTITUTIONS (2–8 units) F S

Open Enrollment — Registration Monday throughout school year. Students may contract to attend from a minimum of four hours per day to a maximum of eight hours per day from two to five days per week.
Prerequisite: None.
Designed to train men and women for employment in food preparation positions in restaurants and institutions. Completion of course is based on attaining required competencies for job placement.

270 TOPICS IN INSTITUTIONAL MANAGEMENT (0.5–2 units) F S

Self-paced, open entry/open exit. For description see I MGT 70.

INTERIOR DESIGN (INT D)

10 DESIGNING HOME INTERIORS (3 units)

Three hours lecture.
Prerequisite: None.
An introductory study of the basic principles of interior design. It is specifically created for both men and women of all ages and locales. This telecourse emphasizes the planning of residential interiors that will satisfy individual and family needs, values and life styles. Consumer education regarding the selection of home furnishing materials is also stressed.

12 CAREERS IN INTERIOR DESIGN (1 unit)

Two hours lecture per week for nine weeks.
Prerequisite: None.
The student will survey the fields of interior design, decoration and related occupations, to obtain a knowledge of types of careers, job opportunities, education and training, professional organizations, including areas of local concern.

15a INTERIOR DESIGN (3 units)

Two hours lecture and two hours laboratory.
Prerequisite: None. ART 2a, 3a, or ARCH 10 recommended concurrently.
The student will be able to identify and apply the elements and principles of design in homes of varying life styles. Emphasis will be on organized selection and arrangement for beauty, comfort and care adapted to use. Not open to students with credit in H EC 15a.
15b INTERIOR DESIGN (3 units)

Three hours lecture.
Prerequisite: INT D 15a.
Student will participate in individual and group projects to create interiors relating site, architecture, floor plans, color and furnishings. This will include a comparison of materials, construction, calculations, and processes for selection and installation in the business field of interior design. Not open to students with credit in HEC 15b.

21a INTERIOR DRAWING (1.5 units)

One hour lecture and two hours laboratory.
Prerequisite: None.
The drafting of floor design, interior elevations, and sections for use with craftsmen and presentation to the client. (Formerly INT D 21)

21b INTERIOR DRAWING (1.5 units)

One hour lecture and two hours laboratory.
Prerequisite: INT D 21a.
Basic drawing and rendering techniques for presenting interiors to design clientele. (Formerly INT D 21)

22 HOUSING AND ENVIRONMENTAL DESIGN (3 units)

Three hours lecture.
Prerequisite: None.
The student will develop an environmental and socio-economic approach to total home design. This will include factors relating to physical site, landscape architects, style, house plans, furniture arrangement, construction and costs.

23a FURNITURE STYLES (2 units)

Two hours lecture.
Prerequisite: INT D 15a or ART 3ab recommended.
A study of styles of architecture and furnishings from antiquity through the Middle Ages, Italian Renaissance, Hispanic, French and English Periods to reveal the development of design and adaptation to contemporary use.

23b FURNITURE STYLES (2 units)

Two hours lecture.
Prerequisite: INT D 23a recommended.
A study of furniture decor and architectural style in Early American, Victorian, Oriental, Modern, and Contemporary design.

74 TOPICS IN INTERIOR DESIGN (1–2 units, Limit 8 units)

Minimum of eighteen hours per unit.
Prerequisite: None.

NUTRITION (NUTR)

10 ELEMENTARY NUTRITION (3 units)

Three hours lecture.
Prerequisite: None.
Principles of nutrition and their application to diets under normal conditions. May be offered for two units in Summer Session.

11 MODIFIED DIETS (3 units)

Two hours lecture and five hours laboratory.
Prerequisite: NUTR 10, I MGT 52 and 56.
Application of the science of nutrition in feeding individuals or groups according to basic needs as prescribed by the physician.

12 CURRENT ISSUES IN CHILD NUTRITION PROGRAMS (3 units)

Three hours lecture.
Prerequisite: None.
Role and responsibilities of unit school food service managers, child care administrators or family day care sponsors in providing means to children and youth which comply with legislative and budgetary parameters and which meet their nutritional, social, psychological and ethnic needs; and the role of participants in integrating the food service program with classroom nutrition education activities.

14 NUTRITION AND FITNESS (3 units)

Two hours lecture and two hours laboratory.
Prerequisite: None.
The student will be able to successfully lose weight using the proper techniques of nutrition and exercise. The proper way of eating, planning, and preparing meals for weight control will be covered in order for students to lose and maintain weight. Individual exercise programs will be developed for every student. (Not open to students with credit in WN ST 14.)

70 TOPICS IN NUTRITION (0.5 unit, Limit 8 units)

One hour lecture and two hours laboratory.
Minimum of eight hours per half unit.
Prerequisite: None.
1 INTRODUCTION TO FIRE TECHNOLOGY (3 units)

Three hours lecture/discussion/demonstrations.
Prerequisite: None.
A general introduction to Fire Technology; career opportunities in fire protection and related fields; history of fire protection; fire loss analysis; public, quasi-public and private protection functions; fire chemistry and physics. (Formerly FISC 51.)

2 FUNDAMENTALS OF PERSONAL FIRE SAFETY AND EMERGENCY ACTION (3 units)

Three hours lecture/discussion/demonstrations.
Prerequisite: None.
Designed to provide career directed students, homeowners, and family members in basic skills in assessing fire dangers, handling common fire situations in the home and/or industry, basic Cardio-Pulmonary Resuscitation and Standard First Aid.

3 FUNDAMENTALS OF FIRE PROTECTION (3 units)

Three hours lecture/discussion/demonstrations.
Prerequisite: None.
Theory and fundamentals of fire protection, including fire protection laws, water systems and public fire protection systems, fire protection in buildings, open areas and specific occupancies. (Formerly FISC 52.)

4 FUNDAMENTALS OF FIRE BEHAVIOR AND CONTROL (3 units)

Three hours lecture/discussion/demonstrations.
Prerequisite: F1 TC 1 or equivalent.
Theory and fundamentals of how and why fires start and spread and how they are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials; techniques of fire control; extinguishing agents.

5 FUNDAMENTALS OF FIRE PREVENTION (3 units)

Three hours lecture/discussions and demonstrations.
Prerequisite: F1 TC 1 or equivalent.
Organization and function of fire prevention; inspections; surveying and mapping procedures; recognition of fire and life hazards; engineering a solution of a fire hazard; enforcing the solution of a fire hazard; public education aspects of fire prevention. (Formerly FISC 53.)

6 FIRE PROTECTION EQUIPMENT AND SYSTEMS (3 units)

Three hours lecture/discussions and demonstrations.
Prerequisite: F1 TC 3 or equivalent.
A study of portable fire extinguishing equipment; protection systems for special hazards; sprinkler systems; fire detection and alarm systems; standpipe systems; heat and smoke control systems; water supplies and systems for interior protection. (Formerly FISC 69.)

50ad BASIC FIRE ACADEMY (8 units)

50a–50b–50c–50d (2–2–2–2) equivalent to 50ad.
Two hundred hours lecture, practical demonstrations, and manipulative drills.
Prerequisite: None.
Provides map familiarization, basic communications, fire suppression apparatus and equipment, principles of hydraulics, basic tactics and strategy, chemistry of fire, fire vehicle operation, emergency care and watershed operations. It is designed to prepare the student for the fire protection service.

54 FIRE APPARATUS AND EQUIPMENT (3 units)

Three hours lecture.
Prerequisite: None.
Driving laws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, apparatus maintenance.

55 RELATED CODES AND ORDINANCES (3 units)

Three hours lecture.
Prerequisite: None.
Familiarization with national, state and local laws and ordinances which influence the field of fire prevention.

56 BUILDING CONSTRUCTION FOR FIRE PROTECTION (3 units)

Three hours lecture.
Prerequisite: None.
Fundamental building construction and design, fire protection features and special considerations.

57 RESCUE PRACTICES (3 units)

Three hours lecture.
Prerequisite: None.
The fire company role in life saving, development and organization of rescue companies, rescue equipment, training for rescue service, rescue practices and procedures.
58 FIRE FIGHTING TACTICS AND STRATEGY (3 units)
Three hours lecture.
Prerequisite: None.
Review of fire chemistry, equipment and manpower; basic fire fighting tactics and strategy; pre-planning fire problems.

59 WILDLAND FIRE CONTROL (3 units)
Three hours lecture.
Prerequisite: None.
Designed to provide the employed fireman or fire science major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.

60 PRINCIPLES OF FIRE ADMINISTRATION (3 units)
Three hours lecture.
Prerequisite: None.
Approaches fire problems from the point of view of the fire chief and his principal command officers; includes selecting and directing personnel, improving the city's insurance rating and the measure of results.

61a FIRE COMPANY ORGANIZATION AND MANAGEMENT (3 units)
Three hours lecture.
Prerequisite: None.
Review of fire department organization, fire company organization, the company officer, personnel administration, communications, fire equipment, maintenance, training, fire prevention, fire fighting capability and records and reports.

61b FIRE SERVICE EDUCATIONAL PROCEDURES I (2 units)
Two hours lecture.
Prerequisite: None.
Designed for fire company officers who conduct in-service training programs. Provides a variety of methods and techniques to help fire service personnel select, develop, and organize material for in-service programs. Provides methods of evaluation and an opportunity to apply major principles of learning through practice return demonstrations.

61c FIRE SERVICE EDUCATIONAL PROCEDURES II (2 units)
Two hours lecture.
Prerequisite: FI TC 61b.
A continuation of Fire Science 61b. Designed to give the student more sophistication in the development, implementation and evaluation of in-service programs in the fire service.

62a HAZARDOUS MATERIALS I (3 units)
Three hours lecture.
Prerequisite: None.
An introduction to basic fire chemistry and physics. Problems of flammability as encountered by firefighters when dealing with fuels and oxidizers. Elementary fire fighting practices pertaining to hazardous materials in storage and transit.

62b HAZARDOUS MATERIALS II (3 units)
Three hours lecture.
Prerequisite: FI TC 62a.
A second semester course in hazardous materials covering handling, identification, and fire fighting practices involving explosive, toxic and radioactive materials in storage and transit.

63 FIRE SERVICE HYDRAULICS (3 units)
Three hours per week.
Prerequisite: None.
A study of fire service hydraulics, including mathematics, elementary hydraulics, velocity of flow, friction loss, engine and nozzle pressure, discharge, stream range, pumping and relaying and water supply.

64 FIRE INVESTIGATION (3 units)
Three hours lecture.
Prerequisite: None.
Introduction to arson and incendiaryism, arson laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and determining witnesses. Procedure in handling juveniles, court procedure and giving court testimony.

65 FIRE VEHICLE MAINTENANCE FOR OPERATORS AND MECHANICS (3 units)
Three hours lecture.
Prerequisite: None.
A survey course in the fundamentals of all vehicle structure. Basic construction of the vehicles, including the main powering systems (fire pumps excluded) and techniques of maintenance.

66 FIRE SERVICE COMMUNICATION SYSTEMS (3 units)
Three hours lecture.
Prerequisite: None.
An introduction to the basic fire alarm operator's area of specialized knowledge, duties, and performance objectives. A general course on the installation, operation, and testing of fire alarm and communications systems. Designed for Alarm Operators and potential Alarm Operators.
67 FIRE SERVICE RECORDS AND REPORTS (3 units)

Three hours lecture.
Prerequisite: None.
A course designed for all members of the fire service in the use of typical records and report systems. Involves knowledge and understanding of fire department records systems, principles of report writing, applications in the area of pre-fire survey, post-fire reporting, research and planning.

68 COMMUNITY RELATIONS AND THE FIRE SERVICE (3 units)

Three hours lecture.
Prerequisite: None.
Study of the role of the firefighter in the community. Explores firefighter's individual image and involvement with minority groups, the taxpayer and the news media.

70 AIRCRAFT FIRE PROTECTION AND RESCUE PROCEDURES (3 units)

Three hours lecture/discussion.
Prerequisite: None.
An introduction to the basic technique of aircraft fire fighting, rescue, fire prevention and hazards commonly incurred by firefighters in such operations.

71 FIRE COMMAND I (2 units)

Thirty-six hours lecture and simulations.
Prerequisite: FI TC 59ad or equivalent.
Designed to provide those having an interest in Fire Company Officer duties with information and experience in command and control techniques at the scene of an emergency. Emphasis is on the act of commanding, the authority or right to command, the personnel, organization or area under a commander, and the performance requirements for Fire Service Officers.

72 ORIENTATION TO FIRE TECHNOLOGY (1 unit)

Eighteen hours lecture and manipulative exercises.
Prerequisite: None.
Provided to develop knowledge and skills necessary to pursue a career within the Fire Service and related fields. It will assist students to develop skills needed for success in oral interviews, civil service written examinations, and preparation of a resume for employment. Content will include a survey of Fire Technology courses and Degree programs.

73a BASIC VOLUNTEER FIREFIGHTING PROCEDURE I (1 unit)

Eighteen hours lecture and manipulative exercises.
Prerequisite: None.
Designed to provide volunteers with a basic knowledge and skills in firefighting practices. Content includes the basic usage of forcible entry tools, ventilation tools, rope usage, extinguisher usage, salvage and overhaul procedures, rescue procedures, resuscitation procedures and cardio-pulmonary resuscitation procedures used by Fire Departments.

73b BASIC VOLUNTEER FIREFIGHTING PROCEDURES II (1 unit)

Eighteen hours of lecture and manipulative exercises.
Prerequisite: FI TC 73a with a "C" or higher.
Designed to provide Volunteer/Call Firefighters with the fundamental knowledge of firefighting procedures. Content will include areas of: fire behavior and tactics; pumping procedures; hose evolutions; ground ladder procedures.

74a PUMP OPERATIONAL PROCEDURES I (1 unit)

Eighteen hours lecture and manipulative exercises.
Prerequisite: None.
Designed to develop knowledge and skills of prospective and employed Fire Engineers in pump operations. Content includes procedures on pumps, pumping principles, practical hydraulics, safe apparatus operation enroute and at scenes of emergencies, principles of reading and interpreting gauges, hydrant operations and drafting procedures.

75 PETROLEUM FIRE PROCEDURES (0.5 unit)

Nine hours lecture and manipulative exercises.
Prerequisite: FI SC 50ad or equivalent.
Designed to provide the student with practical experiences in various firefighting procedures involving flammable liquid fire emergencies, at or near petroleum installations. Content will include utilization of safety practices and various extinguishing agents required for the extinguishment of different types of petroleum product fires. This course is certified by the California State Fire Service Training and Educational Program.

76 SEASONAL FIREFIGHTER BASIC TRAINING (1 unit. Limit 2 units)

Twenty hours lecture/demonstrations and manipulative exercises.
Prerequisite: None.
Designed to provide students with fundamental knowledge and skills of fire suppression procedures used to control wildland fires. Content will include areas of safety equipment; size-up procedures; line construction principles; use and maintenance of hand tools; basic woodsman ship skills; basic First Aid; air support operations; bulldozer operations.

Food
See Family and Consumer Education
FOREIGN LANGUAGES

ARABIC

52a ELEMENTARY ARABIC (2 units. Limit 4 units.)

Three hours lecture-discussion.
Prerequisite: None.
Designed for those who wish to develop a basic understanding of Arabic language and culture.

52b READING AND WRITING ARABIC (2 units. Limit 4 units.)

Three hours lecture-discussion.
Prerequisite: ARABIC 52a or equivalent.
Designed for those who wish to read and write Arabic; an introduction to conversational Arabic.

FRENCH (FREN)

1 ELEMENTARY FRENCH (3 units) F S

Three hours per week.
Prerequisite: None.
Introduction to the basic structures and vocabulary necessary for understanding, reading, writing and speaking French. Daily drill in pronunciation, comprehension and structure of the language. Use of audio-visual and audio-lingual materials including practice in the language laboratory.

1ab ELEMENTARY FRENCH (5 units) F S SS

1a–1b (2.5–2.5) equivalent to 1ab.
Five hours per week.
Prerequisite: None.
An introduction to the basic vocabulary and structures of the French language. A study of the breadth of the French-speaking world, and contemporary French life. Emphasis on communicative competency; individualization of instruction according to student interests; and small group instruction. Use of the language laboratory and the Library Learning Center.

2ab ELEMENTARY FRENCH (5 units) F S SS

2a–2b (2.5–2.5) equivalent to 2ab.
Five hours per week.
Prerequisite: FREN 1ab or two years of high school French.
Continuation and consolidation of the skills initiated in FREN 1ab including the basic vocabulary and structures of the French language. Continued study of the French speaking world, and contemporary French life. Continued emphasis on communicative competency.

3 INTERMEDIATE FRENCH (3 units) F S SS

Three hours per week.
Prerequisite: FREN 2 or two years of high school French.
Review of fundamentals of structure; work in composition; continued reading of selected French stories with more advanced vocabulary and idiomatic phrases; drill with audio-visual materials for comprehension and improvement of speech patterns; use of materials and equipment in the language laboratory. French 3 formerly 4 units, 4 hours per week.

4 INTERMEDIATE FRENCH (3 units) S

Three hours per week.
Prerequisite: FREN 3 or three years of high school French.
More advanced work in reading and comprehension with emphasis on appreciation and understanding of ideas and style of famous French writers. Selected readings provide a brief survey of French literature from the Middle Ages to the Twentieth Century. Students are encouraged to listen to French masterpieces interpreted by native speakers. Written work includes dictation and short compositions. French 4 formerly 4 units, 4 hours per week.

5a–5b ADVANCED FRENCH (3–3 units) F S

Three hours lecture and 1.5 hours language laboratory per week.
Prerequisites: Four years of high school French or FREN 4 prerequisite to 5a.
A course in extensive reading and further development of conversational ability. Intensive practice with advanced pronunciation drills in the language lab to improve pronunciation. Further development of writing skill through written composition. Class conducted in French.

10 CURRENT READINGS IN FRENCH (1 unit) SS

Four hours per week.
Prerequisite: FREN 2.
Special topics in the study of foreign languages. The course will deal either with a special interest not covered in a regular course or with the exploration in much greater depth of a subject presented in a regular course. Group study planned to provide an enriched experience for students possessing the minimum requirement of language skills necessary to follow the course profitably. Summer Session only.
41 APPRECIATION OF FRENCH CULTURE— IN ENGLISH (3 units)

Three hours per week.
Prerequisite: None.
French culture primarily through visual aids. Emphasizes contemporary life in France, including social customs and fine arts. No knowledge of French required. Students will learn some of the French words and expressions which already have universal or international use and status however.

52a–52b ELEMENTARY CONVERSATIONAL FRENCH
(2–2 units, Limit 4 units per course.)

Three hours per week.
Prerequisite: 52a or its equivalent prerequisite to 52b.
A continuation of the fundamentals necessary for speaking, reading, writing and understanding French. Designed to provide continuity for the learner in his acquisition of the essential structures of the language with emphasis upon correct pronunciation and practice in conversation.

GERMAN
(GERM)

1ab ELEMENTARY GERMAN (5 units)

1a–1b (2.5–2.5) equivalent to 1ab
Five hours per week.
Prerequisite: None.
Presentation of the fundamentals of German construction necessary for accurate speaking, reading, writing and understanding German. Daily drill in pronunciation, structure and comprehension of the language. Practice in the language laboratory.

2ab ELEMENTARY GERMAN (5 units)

2a–2b (2.5–2.5) equivalent to 2ab.
Five hours per week.
Prerequisite: GERM 1, or two years of high school German.
Continuation of GERM 1 with additional emphasis on conversational style. Practice in the language laboratory.

3 INTERMEDIATE GERMAN (4 units)

Four hours per week.
Prerequisite: GERM 2ab or three years of high school German.
Selected readings in German with study of German cultural background. Review of essentials of grammar with more advanced structure and vocabulary. Use of audio-visual materials for improvement of comprehension. Practice in the language laboratory.

4 INTERMEDIATE GERMAN (4 units)

Four hours per week.
Prerequisite: GERM 3 or four years of high school German.
Continued readings in German from selected works of German authors. Study of cultural development of Germany and its historical background. More advanced experience in vocabulary development, comprehension, speaking and writing German. Some specialized reading in student’s major field.

5a–5b ORAL GERMAN (3–3 units)

Three hours per week.
Prerequisite: GERM 3 or equivalent. May be taken concurrently with GERM 4. 5a not prerequisite to 5b.
Intensive practice in advanced audio-lingual drills and exercises designed to improve pronunciation and intonation and to develop fluency. Study of selected materials from everyday dialogues, prose readings, poetic and dramatic interpretations. Structural review and composition as necessary to perfect style.

52a–52b ELEMENTARY CONVERSATIONAL GERMAN
(2–2 units, Limit 4 units per course.)

Three hours per week.
Prerequisite: GERM 3 or equivalent. May be taken concurrently with GERM 4. 5a not prerequisite to 5b.
A continuation of the fundamentals necessary for speaking, reading, writing and understanding German. Designed to provide continuity for the learner in his acquisition of the essential structures of the language with emphasis upon correct pronunciation and practice in conversation.

52c ELEMENTARY CONVERSATIONAL GERMAN
(2 units, Limit 4 units.)

Three hours per week.
Prerequisite: GERM 3 or equivalent prerequisite to 52b.
Designed for those who wish to develop a basic understanding of conversational German. Emphasizes pronunciation, correct usage and common idiomatic speech.

52d ELEMENTARY CONVERSATIONAL GERMAN
(2 units, Limit 4 units.)

Three hours per week.
Prerequisite: GERM 52b or GERM 1 or two-three years of recent high school German.
Continued study of German culture and customs. Designed for those who wish to improve their present speaking knowledge of German.
HEBREW (HEBRW)

52a–52b ELEMENTARY CONVERSATIONAL HEBREW
(2–2 units. Limit 4 units per course.)

Three hours per week.
Prerequisite: 52a or its equivalent prerequisite to 52b.
Designed to teach the fundamentals of the Hebrew language; to develop fluency in reading, grammatic and idiomatic forms and to introduce the student to Hebrew literature. HEBRW 52b is a continuation of 52a. Greater emphasis is placed on conversation, the structural principles of grammar and composition.

52c–52d INTERMEDIATE CONVERSATIONAL HEBREW
(2–2 units. Limit 4 units per course.)

Three hours per week.
Prerequisite: HEBRW 52b or equivalent.
Designed to continue Book 1 of the Habet Ushma course used in 52a–52b. Further develops fluency in reading, grammatic and idiomatic forms, and introduces the student to Hebrew literature.

ITALIAN (ITAL)

52a–52b ELEMENTARY CONVERSATIONAL ITALIAN
(2–2 units. Limit four units per course.)

Three hours lecture.
Prerequisite: None.
Designed to develop a basic fluency in conversational Italian. Fundamental principles of Italian grammar are included so that the student may learn to understand, read and write fairly simple Italian.

LATIN

1 ELEMENTARY LATIN (3 units)

Three hours per week.
Prerequisite: None.
An introduction to basic vocabulary and grammatical forms for reading simple Latin phrases.

2 ELEMENTARY LATIN (3 units)

Three hours per week.
Prerequisite: LATIN 1 or two years of high school Latin.
A continuation of course 1; emphasizes reading and interpreting works of noted Roman authors.

SPANISH (SPAN)

1ab ELEMENTARY SPANISH (5 units)

1a–1b (2.5–2.5) equivalent to 1ab.
Five hours per week.
Prerequisite: None.
Emphasizes comprehension and correct oral delivery of basic language patterns. Simple exercises in reading and writing as well as constant oral drill in class and language laboratory afford the opportunity to acquire an active use of the language on an elementary level.

2ab ELEMENTARY SPANISH (5 units)

2a–2b (2.5–2.5) equivalent to 2ab.
Five hours per week.
Prerequisite: SPAN 1, or two years of high school Spanish.
Continuation of SPAN 1. Emphasizes comprehension and correct oral delivery of basic and more advanced language patterns. Advanced exercises in reading and writing as well as constant oral drill in class and language laboratory.

3 INTERMEDIATE SPANISH (4 units)

Four hours per week.
Prerequisite: SPAN 2ab or three years of high school Spanish.
Readings in Spanish and Latin-American literature aimed toward developing competence in the language and an understanding of the spirit and culture of Spanish-speaking peoples. Practice in oral and written expression with a systematic review of grammar and practice in the language laboratory.

4 INTERMEDIATE SPANISH (4 units)

Four hours per week.
Prerequisite: SPAN 3 or four years of high school Spanish.
Continuation of SPAN 3. Advanced readings in Spanish and Latin-American literature aimed toward increased competence in the language and a greater understanding of the spirit and culture of Spain and Latin-America. Practice in oral and written expression with a review of grammar and practice in the language laboratory.
5a–5b ADVANCED SPANISH (3–3 units)

Three hours per week.
Prerequisite: Four years of high school Spanish, or SPAN 3 with a grade of “A” or “B” or SPAN 4. May be taken concurrently with SPAN 4.
Extensive readings in Spanish and Latin-American literature and further development of conversational ability. Written and oral reports.

52a–52b ELEMENTARY CONVERSATIONAL SPANISH (2–2 units. Limit 4 units per course.)

Three hours per week.
Prerequisite: 52a or equivalent prerequisite to 52b.
Designed for those who wish to develop a basic understanding of conversational Spanish. Emphasizes pronunciation, correct usage and common idiomatic speech.

52c–52d INTERMEDIATE CONVERSATIONAL SPANISH (2–2 units. Limit 4 units per course.)

Three hours per week.
Prerequisites: SPAN 52b, 52c or permission of instructor prerequisite to 52d.
Designed to present continuity in the study of conversational Spanish. Advanced practice in conversation as well as a detailed review of grammar, lectures on the culture, literature and art of the Hispanic world.

Forestry
See Agriculture

French
See Foreign Languages

GENERAL STUDIES (GN ST)

5 THE ASCENT OF MAN (2 or 3 units)

Two to three hours lecture.
Prerequisite: None.
An interdisciplinary general education offering which traces and emphasizes the scientific discoveries that have shaped the history of man. Course content deals with the interrelationship of science and the humanities, the influence of social and political developments on scientific discovery, and the effect of science and technology on the course of human events—Two hours lecture—2 units of credit.

10 INDEPENDENT READING PROGRAM (1–2 units)

One-two hour class meeting and coordinated instruction system. Time by arrangement.
Prerequisite: None.
A program designed for the student interested in independent reading of books in the social sciences, physical sciences and humanities under library staff supervision.

15 OCEANS: OUR CONTINUING FRONTIER (3 units)

One hour newspaper lecture and two hours by arrangement.
Prerequisite: None.
Presented to students via 16 articles written by eminent scholars and published in the local newspaper. Examines the whole range of human involvement with the sea. Shows through literature and painting how man’s perception of the sea has changed, and how through exploration at sea, scientists have changed man’s understanding of the history of the earth.

90 MULTI-MEDIA LABORATORY (0 unit)

One to three hours per week by arrangement for seventeen weeks.
Prerequisite: None.
Provides students the opportunity to utilize a wide variety of media in developing their skills, understandings and competencies in such areas as music, psychology, foreign language, office skills, English, speech, geology, etc.

GEOGRAPHY (GEOG)

1a INTRODUCTION TO GEOGRAPHY: Physical Elements (3 units)

Three hours lecture.
Prerequisite: None.
A study of the basic elements of physical geography: climate, land forms, soils, natural vegetation and their patterns of world distribution.

1b INTRODUCTION TO GEOGRAPHY: Cultural Elements (3 units)

Three hours lecture.
Prerequisite: None.
A study of the basic elements of cultural geography: population and settlement, locational concepts, economic activities, environmental influences and regional analysis.
GEOLOGY
(GEOL)

○ 1a PHYSICAL GEOLOGY (4 units)  F S

Three hours lecture and three hours laboratory. At least one Saturday field trip or equivalent required.
Prerequisite: None.
An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Includes identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. Not open to students with credit in GEOL 10 and 10L or 11.

○ 1b HISTORICAL GEOLOGY (4 units)  S

Three hours lecture and three hours laboratory.
Prerequisites: GEOL 1a or 10 and 10L or 11.
The principles of the history of the Earth as revealed by fossils, rock structures and strata; the origin and evolution of the plant and animal inhabitants with particular attention to California.

○ 6a INTRODUCTION TO MINERALOGY (2 units)  F

One hour lecture and three hours laboratory.
Prerequisite: CHEM 2a or equivalent.
Determination of important minerals, their origins and relationships by physical and chemical tests.

○ 6b CRYSTALLOGRAPHY (2 units)  S

One hour lecture and three hours laboratory.
Prerequisite: GEOL 6a.
Study of the silicate minerals and recognition of the more important forms of the different crystal systems using Dana models and suitable crystal specimens.

○ 7 GENERAL PALEONTOLOGY (3 units)  F

Two hours lecture and two hours laboratory. At least two Saturday field trips are required.
Prerequisite: A course in geology or biology is strongly recommended.
Covers the development of animal life from the earliest fossil records to now living forms. Laboratory work includes identification, study of form, classification of fossil plants and animals, and methods of collection and preparation of specimens.

○ 10 INTRODUCTION TO GEOLOGY (3 units)  F S SS

Three hours lecture. At least one Saturday field trip or equivalent required.
Prerequisite: None.
An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Students desiring laboratory experience should either substitute GEOL 11 or enroll in GEOL 10L concurrently with GEOL 10. Not open to students with credit in GEOL 1a.

○ 10L INTRODUCTORY GEOLOGY LABORATORY (1 unit)  F S SS

Three hours laboratory.
Prerequisite: GEOL 10 (preferably taken concurrently).
Exercises planned to accompany the lectures of GEOL 10. Identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. Designed for students preparing to teach in the elementary grades and for all non-science majors.

○ 11 GENERAL GEOLOGY (4 units)  F S

Three hours lecture and three hours laboratory. At least one Saturday field trip or equivalent required.
Prerequisite: None.
An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Includes identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. Not open to students with credit in GEOL 1a.

○ 12 GEOLOGY OF CALIFORNIA (3 units)  S

Three hours lecture. One field trip or equivalent required.
Prerequisites: GEOL 10 or 11.
An elementary course dealing with the geologic history, structure, topography and mineral resources of California and adjoining areas.

52a BASIC MINERALOGY (2 units)

One hour lecture and two hours laboratory plus field trips by arrangement.
Prerequisite: None.
The common minerals of the earth, their origin, structure, economic uses, occurrences and identification by physical and chemical tests.

52b BASIC PETROLOGY (2 units)  S

One hour lecture and two hours laboratory plus field trips by arrangement.
Prerequisites: GEOL 52a or 6a, and 1a, or 10, or 11.
Continuation of GEOL 52a with emphasis on rock-forming minerals and a systematic study of common rocks of the earth's crust with particular attention to local types.
72 INTRODUCTION TO PETROLEUM GEOLOGY (2 units)  
Two hours lecture and one hour laboratory.  
Prerequisites: GEOL 1a, or 10, or 11.  
Lectures, demonstrations and problems relating to basic elements of geology, origin of petroleum, migration and entrapment of petroleum, methods of petroleum exploration, formation evaluation, drilling and production and economics.

75 WIRELINE WELL LOG ANALYSIS (3 units)  
Three hours lecture.  
Prerequisite: A basic course in college geology is recommended.  
The student will learn to interpret and apply the basic principles of wireline well logging as needed to evaluate subsurface petroleum reservoirs.

90 BIOSTRATIGRAPHY (0 units)  
Seminar.  
Prerequisite: None.  
Designed for practicing paleontologists, stratigraphers, geologists and geophysicists.  
Attention is given to current investigations and research in these areas.

German  
See Foreign Languages

Graphic Design  
See Art

HEALTH CAREERS

ADMISSIONS TO HEALTH CAREER PROGRAMS

I. Statement of Philosophy concerning Admission into Health Career Programs:

All persons who are able to perform satisfactorily the responsibilities and tasks required in an education and training program and in subsequent employment in the field should have an opportunity to succeed. This principle is stated in the philosophy of the District colleges and in the labor code of the State of California, Section 1411, which states, "It is hereby declared as the public policy of this state that it is necessary to protect and safeguard the right and opportunity of all persons to see, obtain, and hold employment without discrimination of abridgement on account of race, religious creed, color, national origin, ancestry, physical handicap, or sex.”

It is recognized that the need to protect the safety and welfare of the student and the community is a primary consideration in the health occupations.

II. Admission Procedures

A. Determination of Eligibility for Admission:

The student must meet educational and health requirements established for the program.

1. Educational Requirements
   a. A high school diploma or equivalent is required for all health career programs.
   b. Meet specific program prerequisites.

2. Health Requirements
   The student must be free from communicable diseases, infection, psychological disorders, and other conditions that would prevent the successful performance of the responsibilities and tasks required in the education and training program of the college. Any condition described above which is developed by the student after admission to the program may be considered sufficient cause for suspension from the program. If possible, such a student should be counseled to enter a more appropriate program.
   a. Physical Examinations — This exam is to be completed AFTER the student receives notification of selection into the program. The applicant must have acceptable emotional and physical health as determined by a physician.
   b. Immunizations — As needed for acceptance in a clinical and training facility, and to protect the health and welfare of the student and community.

3. Eligibility for Admission

Applicants who have completed their applications, have their high school and college transcripts on file, and have met the educational and health requirements will be designated as eligible for admission. Specific requirements for the several Health Careers Programs are in the process of revision. Information regarding criteria for selection may be obtained in the Health Career’s Office.
DENTAL ASSISTING (DNT A)

● 50 INTRODUCTION TO DENTAL ASSISTING (3 units)
Three hours lecture-demonstration.
Prerequisite: Admission to Dental Assisting Program.
History of dentistry, dental practices, professional organizations, ethics, terminology, health and grooming, employment and job demands, emergency and first aid procedures, and preventive dentistry.

● 51a DENTAL LABORATORY PROCEDURES (3 units)
Two hours lecture and three hours laboratory.
Prerequisite: Admission to Dental Assisting Program.
Basic physical and chemical properties of dental materials, classification of materials and their appropriate uses. The use and maintenance of the dental laboratory.

● 51b DENTAL LABORATORY PROCEDURES (3 units)
Two hours lecture and three hours laboratory.
Prerequisites: Completion of DNT A 50, 51a, 52, 60 and 65a with a grade of “C” or higher.
Preparation and use of dental waxes and impression materials, models, fixed and removable prosthesis, dental laboratory functions and dental laboratory preparation.

● 52 DENTAL ANATOMY AND TERMINOLOGY (3 units)
Two hours lecture and three hours laboratory.
Prerequisite: Admission to Dental Assisting Program.
Introduction to general anatomy with emphasis on head and neck, teeth and supporting structures, diet and nutrition related to dental health.

● 53 BIO-DENTAL SCIENCES (3 units)
Three hours lecture-demonstration.
Prerequisites: Completion of DNT A 50, 51a, 52, 60 and 65a with a grade of “C” or higher.
A study of the applied aspects of pharmacology, microbiology, pathology, and nutrition which provide a better understanding of scientific principles underlying routine dental assisting procedures.

● 55 DENTAL OFFICE PROCEDURES (3 units)
Three hours lecture.
Prerequisites: Completion of DNT A 50, 51a, 52, 60 and 65a with a grade of “C” or higher.
Jurisprudence; human relations; psychology; office procedures including reception duties, telephone techniques, booking, correspondence and filing, banking procedures, credit and collections, insurance, supply purchase and inventory applicable to the operation of a dental office.

● 58 CHAIRSIDE OPERATORY TECHNIQUES (3 units)
Two hours lecture and four hours laboratory.
Prerequisites: Completion of DNT A 50, 51a, 52, 60a and 65a with a grade of “C” or higher.
Pre-operative procedures; instruments; function, care and maintenance of instruments and equipment; patient care; introduction to operative and post-operative procedures including sterilization procedures.

● 59 INTRAORAL PROCEDURES (3 units)
Two hours lecture and three hours laboratory.
Prerequisites: DNT A 50, 51a, 52, 58, 60a, and W EXP 50.
Students will participate on models and patients in the RDA tasks approved by the California Board of Dental Examiners, such as: taking permanent impressions, tooth vitality testing and placement of temporary restorations.

● 60a–60b DENTAL RADIOGRAPHY (3–3 units)
Two hours lecture and four hours laboratory (60a).
Three hours lecture and demonstration (60b).
Prerequisites: Admission to Dental Assisting Program; 60a with a “C” or higher prerequisite to 60b.
Operating x-ray equipment commonly used in dental office, processing x-ray films and evaluating film quality.
EMERGENCY
MEDICAL TECHNICIAN
(EMT)

1 EMERGENCY MEDICAL CARE (4 units) F S

Five hours lecture per week plus 14 hours ER/Ambulance experience.
Prerequisite: None.
Acquaints the student with the correct techniques of emergency medical care needed by
different types of patients. Stress is placed on the recognition and treatment of
emergency problems. "Meets California State Department of Health Criteria" for EMT 1
(Ambulance) Training.

2a MOBILE INTENSIVE CARE: PARAMEDIC. (12 units) F

Twelve hours lecture.
Prerequisites: EMT 1 Certificate, MED S 60a and HL SC 1 (or equivalent) with grades of
"C" or higher.
Topics covered: Basic Pharmacology, Coronary/Critical Care, Special Emergency
Techniques, Childbirth, Telemetry, Physical Assessment. Formerly EMT 2ah.

2b HOSPITAL CLINICAL EXPERIENCE (2 units) S

One hundred twenty hours of clinic.
Prerequisite: EMT 2a.
Acquaints students with correct techniques for emergency care in the hospital setting:
OR, ER, OB, ICU, CCU. Formerly EMT 2i.

2c MOBILE INTENSIVE CARE UNIT FIELD EXPERIENCE (4 units) S

Two hundred hours field experience.
Prerequisites: EMT 2a; Concurrent enrollment in EMT 2b.
Acquaints students with correct techniques for emergency care in the field. Formerly
EMT 2j.

70 ADVANCED FIRST AID AND EMERGENCY CARE (3 units) F S

Three hours lecture and demonstration.
Prerequisite: None.
An in-depth course in first aid and emergency techniques. Emphasizes responses to
emergency-crisis situations. Does NOT meet "California State Department of Health
Criteria" for EMT 1 (Ambulance) Training.

HEALTH CAREERS
(H CRS)

50 INTRODUCTION TO HEALTH CAREERS (2 units) F S

Two hours lecture for eighteen weeks.
Prerequisite: None.
Designed to provide students with a foundation of knowledge regarding a variety of
health careers serving as a base from which health technologies can depart. History,
trends, career options, and roles will be explored.

71 CURRENT PRACTICES IN HEALTH CAREERS (0.5-4 units) F S

Lectures from one to four hours per week. Clinical practice three hours per unit per
week, if necessary. May be offered as a weekend workshop with a minimum of eight
hours lecture per half unit of credit.
Prerequisite: None.
Concentrates in current practices in health careers. Some of the topics are: coronary care
nursing, primary care, EMT recertification, renal dialysis, pharmacology, and
communication techniques. Individual courses may be repeated once if appropriate to the
student's needs.

MEDICAL ASSISTING
(M A)

50 THE CAREER OF MEDICAL ASSISTING (2 units) F

Two hours lecture.
Prerequisite: Admission to the Medical Assisting Program.
Designed to give the student an overview of the responsibilities and needed skills of a
Medical Office Assistant. Other emphasis includes self-evaluation, personal grooming,
poise, professional development and human relations.
• 51 MEDICAL OFFICE PROCEDURES (3 units)  
Five hours laboratory.  
Prerequisites: Completion of first semester of MA Program with grades of “C” or higher, ability to type a minimum of 35 wpm accurately.  
Designed to give the student a basic background of medical office procedures in filing, bookkeeping, appointment making, handling mail, typing correspondence and medical reports, and using the telephone.

• 52 MEDICAL LAW (2 units)  
Two hours lecture.  
Prerequisite: Admission to the MA Program.  
Provides a background in the legal instruments and laws which affect medical office practice. Emphasis is given to contracts, agency, laws dealing with malpractice and narcotics.

• 60 MEDICAL OFFICE MANAGEMENT (3 units)  
Five hours laboratory.  
Prerequisites: Admission to third semester of MA Program and MA 51 with a grade of “C” or higher.  
Designed to develop managerial-type skills and decision-making processes important to the operation of medical offices. Emphasizes original letter writing, inventory keeping, equipment upkeep, written and oral communication services, insurance forms and programs, credit and collection procedures.

• 61 MEDICAL TRANSCRIPTION (2 units)  
Four hours laboratory.  
Prerequisites: Admission to fourth semester of MA Program, MA 51 or OFF S 50b, and MED S 60a-60b with a grade of “C” or higher.  
Develops skill in operating transcription machines and in transcribing medical reports.

MEDICAL SCIENCE (MED S)

• 50 HANDLING PATIENTS (2 units)  
Two hours lecture-demonstration.  
Prerequisite: Acceptance in the Radiologic Technology Program.  
To acquaint the technologist with basic correct nursing care required by all patients. An overview of types of patients which require special handling; instruction and practice in handling emergencies and first aid situations.

• 60 MEDICAL TERMINOLOGY (4 units)  
Four hours lecture.  
Prerequisite: None.  
Course in introductory medical terminology offering the student a basic foundation of medical terms related to the major body systems. Not open to students with credit in MED S 60a.

• 60a MEDICAL TERMINOLOGY (3 units)  
Three hours lecture.  
Prerequisite: None.  
Introductory medical terminology offering the student a basic foundation of medical terms related to the major body systems.

• 60b MEDICAL TERMINOLOGY (3 units)  
Three hours lecture.  
Prerequisite: MED S 60a.  
A course in medical terminology which broadens the background of the student, providing additional medical terminology, particularly in the specialty medical fields.

• 62 ELEMENTARY MEDICAL TECHNIQUES (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisites: Enrollment in the Medical Assisting program, ANAT 54 or equivalent (may be taken concurrently).  
Study of the techniques performed by medical office assistants in helping the doctor with the care and treatment of his patients in the office, examining, treatment, and laboratory rooms. Provides introductory knowledge of and skill development in the procedures performed by office assistants in the office, clinics and laboratories.

• 63 SPECIALIZED MEDICAL TECHNIQUES (3 units)

Two hours lecture and three hours laboratory.  
Prerequisites: Completion of the first year of the Medical Assisting Program with grades of “C” or better.  
Study of and development of skill in performing specialized techniques needed by medical office assistants in offices and clinics which routinely use these tests.
RADIOLOGIC TECHNOLOGY (RAD T)

1 INTRODUCTION TO RADIOLOGIC TECHNOLOGY (1 unit)  
Three hours lecture per week for six weeks.  
Prerequisite: Acceptance in the Radiologic Technology program.  
An orientation to the work of the radiologic technician including employment opportunities and requirements, and his relationships to patients and with other medical personnel. An overview of the role of radiology in medical practice. Familiarization with hospital operation and with the components of radiological services and procedures. Standards and ethics will be stressed. Safety regulations and precautions.

2a–2b–2c RADIOLOGIC ANATOMY AND POSITIONING (2–2–2 units)  
One hour lecture and three hours laboratory and clinic.  
Prerequisites: Concurrent enrollment in ANAT 43a–43b, RAD T 6a and acceptance to the Radiologic Technology Program.  
Correlates ANAT 43a–43b with the radiographic examination. Study and identification of anatomical structures on the x-ray film. The sequence of systems studied parallels the sequence in ANAT 43. Instruction and experience is provided in proper positioning of patients for general and special x-ray procedures.

3a RADIOGRAPHIC EXPOSURE AND DARKROOM OPERATIONS (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisite: Acceptance to the Radiologic Technology Program.  
Darkroom chemistry and technique. Types and uses of x-ray film and darkroom equipment. Processing solutions and their functions. Fundamentals of photographic process; artifacts and their cause. Introduction to the techniques employed in the use of x-ray equipment covering control of the equipment and radiographic procedures using contrast media.

3b RADIOGRAPHIC EXPOSURE (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisites: Completion of first semester of the Radiologic Technology Program with grades of “C” or better.  
Manipulation of exposure factors, principles and practice of technique of chart construction, principles of safety and safety margins, procedures associated with special radiographic equipment and procedures.

4 RADIATION PHYSICS (3 units)
Two hours lecture and three hours laboratory.  
Prerequisite: Completion of first semester of the Radiologic Technology Program with grades of “C” or better, MATH C or D.  
Magnetism; elements of electricity, electrical power, current, resistance, transformers, rectifiers and measurement instruments; x-ray tubes, circuits, types, measurement and properties; types of x-ray machines.

6a–6b BEGINNING RADIOLOGIC CLINIC (5–5 units)  
Sixteen hours per week in hospital clinic.  
Prerequisite: Acceptance in Radiologic Technology program.  
Planned clinical experiences which provide the trainee with opportunity under supervision to perform the duties of a radiologic technologist for which he has had appropriate training and to perfect his skill in these assignments.

7 SUMMER RADIOLOGIC CLINIC (6 units)  
Ten weeks (400 hours minimum) of clinical experience.  
Prerequisite: Completion of first year of Radiologic Technology Program with grades of “C” or higher. Concurrent enrollment in W EXP 50.

11 ISOTOPES AND RADIATION THERAPY (2 units)  
Two hours lecture.  
Prerequisite: Acceptance to second year of Radiologic Technology Program.  
The nature, use and measurement of diagnostic and therapeutic isotopes; radium and cobalt therapy.

12 PEDIATRIC RADIOGRAPHY (1 unit)  
Two hours lecture per week for nine weeks.  
Prerequisite: Completion of third semester of Radiologic Technology Program with grades of “C” or higher.  
Adaptation of radiologic procedures to infants and children. Demonstration of techniques and special equipment essential to the safe and efficient radiographic examination of children. Perfection of skills will be accomplished in the concurrent course, RAD T 17b.

14 MEDICAL AND SURGICAL DISEASES (2 units)  
Two hours lecture.  
Prerequisite: Completion of third semester of Radiologic Technology Program with grades of “C” or higher.  
Overview of medical pathology selected on the basis of relevance to radiologic examinations.
16 DEPARTMENTAL ADMINISTRATION (1 unit)

Two hours lecture per week for nine weeks.
Prerequisite: Completion of third semester of Radiologic Technology Program with grades of "C" or higher.
The organization, function, supervision, fiscal management and operation of a department of radiology including attention to intra and inter departmental relationships and factors of personnel management.

17a–17b ADVANCED RADIOLOGIC CLINIC (8–8 units)

Twenty-four hours clinic per week.
Prerequisite: Acceptance to second year of Radiologic Technology Program.

18 ADVANCED SUMMER RADIOLOGIC CLINIC (6 units)

Ten weeks (400 hours minimum) of hospital clinical experience.
Prerequisites: Completion of all RAD T classes with grade of "C" or higher. Concurrent enrollment in W EXP 50.
An intensive 40 hour per week clinical experience designed to polish the techniques and skills needed to take the National Registry Examination for Radiologic Technology.

REGISTERED NURSING (NURS)

1 FUNDAMENTAL ARTS AND SCIENCES OF NURSING (10 units)

Five hours lecture and fifteen hours clinical laboratory per week.
Prerequisite: Admission to the ADN Program.
Provides a foundation of basic nursing arts and science necessary for the practice of nursing. The evolution of nursing is discussed and trends identified. The course introduces the nursing process. Concepts of role, aspesis, communications, mobility, safety and comfort, nutrition and fluid homeostasis, elimination, pharmacology, and oxygenation are presented and applied through concurrent nursing practice in the clinical/laboratory setting. (Formerly NURS 1 and 2.)

2 NURSING ASSESSMENT AND HEALTH PROMOTION - PRE-ADULT (10 units)

Five hours lecture and fifteen hours clinical laboratory per week.
Prerequisite: NURS 1 with a grade of "C" or higher.
Focuses on nursing interventions in preventative, remedial, supportive, rehabilitative and teaching aspects of nursing from birth through young adulthood. A holistic, i.e., bio-psychosocial, approach to nursing care of man is applied. Concepts of wellness are presented. These formulate a basis of departure for the study of illness. Nursing process provides the framework for deliberative nursing interventions presented throughout the course. The student is guided by specific behavioral objectives for each learning experience. (Formerly NURS 3 and 4.)

3 NURSING ASSESSMENT AND HEALTH PROMOTION - ADULT THRU OLD AGE (10 units)

Five hours lecture and fifteen hours clinical laboratory per week.
Prerequisite: NURS 2 with a grade of "C" or higher.
Continues the study of nursing intervention in preventative, remedial, supportive, rehabilitative and teaching aspects of nursing throughout the life span. Focus is on health concerns of the young adult, middle-aged and old aged persons. Nursing process provides the framework for deliberative nursing interventions presented throughout the course. Correlated clinical experiences are provided with patients from the age groups of young adulthood to old age who have complicated health problems. (Formerly NURS 5 and 6.)

4 NURSING PROCESS - THE PERSON IN MENTAL HEALTH CRISIS, AND THE LEADERSHIP ROLE (5 units)

Four hours lecture and eighteen hours clinical laboratory per week for nine weeks.
Prerequisite: NURS 3 with a grade of "C" or higher. The first five weeks of the course focuses on the person in mental health crisis. Concepts of acute psychiatric problems and treatment modalities are presented. The nursing process is used as the scientific approach to nursing in the psychiatric setting. Therapeutic process is specifically related to the nurse’s role. Self growth is an expected outcome. The final four weeks prepare the student for the leadership components of nursing expected of the registered nurse. Clinical practice is provided in a variety of community settings. (Formerly NURS 7.)

5 NURSING PROCESS - THE PATIENT REQUIRING CRITICAL CARE (5 units)

Four hours lecture and eighteen hours clinical laboratory per week for nine weeks.
Prerequisite: NURS 4 with a grade of "C" or higher.
The course is designed to prepare students for nursing responsibilities in the critical care areas. Common concepts of critical care are initially presented. The student elects an area of concentration and is expected to assume indepth study in that area. Appropriate clinical practice is arranged in intensive care, coronary care, renal dialysis, emergency room, operating room, and recovery room as scheduling permits. (Formerly NURS 8.)

6 INTRODUCTION TO FAMILY HEALTH NURSING I (3 units)

Two hours lecture and three hours clinical laboratory per week.
Prerequisite: NURS 2 with a grade of "C" or higher.
The concepts and aims of the Family Health Nurse: an expansion of the Associate Degree Nursing Program in relation to other levels and roles in nursing, and in relation to the health team in general are investigated. Current issues in nursing and nursing education are critically discussed. Community nursing is defined, and the community nurse role and settings are explored. The cultural dimension of community nursing is introduced. Major cultural groups are identified, and their significant characteristics and value systems are examined. Economic and cultural factors that influence health attitudes and practices are identified. The nursing process is related to community nursing. Trends in community health are defined. (Formerly NURS 9.)
7 FAMILY HEALTH NURSING II (3 units)

Three hours lecture per week.
Prerequisite: NURS 6 with a grade of "C" or higher.
Continuation of the concepts and aims of the Family Health Nurse. Therapeutic use of self, relationship skills, communication skills are developed. Students investigate interpersonal approaches for working with individuals, families, groups, and interdisciplinary personnel. The family-centered approach to community health nursing is explored through study of the family unit, families from various socioeconomic groups, and families representing various cultural groups. Health care and the disadvantages are examined and discussed critically. Major issues in communicable disease control are identified. (Formerly NURS 11.)

8 DISTRIBUTIVE CARE FOR PEOPLE WITH HEALTH NEEDS (5 units)

Four hours lecture and eighteen hours clinical laboratory per week for nine weeks.
Prerequisite: NURS 7 with a grade of "C" or higher.
Prepares the student to carry out the nursing process with patients and families in the home, the clinic, and other health service delivery settings. Students will care for the chronically ill and/or handicapped; assist in the process of habilitation and rehabilitation; and become involved in the roles and functions of community health agencies. (Formerly NURS 10.)

90 CURRENT PRACTICES IN NURSING (0 units)

Prerequisite: None.
Designed to meet the continuing education requirements of the California State Board of Registered Nursing for license renewal. Continuing education presentations may be offered through lectures, workshops, seminars, short and long term courses, with a minimum of three hours duration. All presentations are approved by the California State Board of Registered Nursing. Nurses must have a total of thirty hours of continuing education within the two years prior to license renewal. A certificate of completion will be issued upon completion of each offering. Bakersfield College's continuing education provider number is 00338.

VOCATIONAL NURSING (V NRS)

51 INTRODUCTION TO VOCATIONAL NURSING (2 units)

Four hours lecture per week for nine weeks.
Prerequisites: Admission to the Vocational Nursing program and concurrent enrollment in V NRS 65a.
Orientation of the student to the vocational nursing program and to the vocational nurse's position on the health team. Introduction to the study of personal and mental health, interpersonal relationships, legal aspects of nursing and to community resources for the patient.

52 ELEMENTARY MEDICAL – SURGICAL NURSING (3 units)

Three hours lecture per week.
Prerequisites: Admission to the Vocational Nursing program and concurrent enrollment in V NRS 65a.
An introductory study of observation, charting and special nursing needs of the geriatric patient and patients with long-term illnesses.

53 PHARMACOLOGY (2 units)

Two hours lecture per week.
Prerequisites: Admission to the Vocational Nursing program and concurrent enrollment in V NRS 65a.
A study of etiology, symptomatology, treatment and nursing care of patients of all ages, with illnesses affecting the cardiovascular system.

54 CARDIOVASCULAR NURSING (2 units)

Four hours lecture per week for nine weeks.
Prerequisites: Admission to the Vocational Nursing program and concurrent enrollment in V NRS 65a.
A study of growth and development of the normal child including basic needs and relationship of these to the nursing needs of the sick child.

55 PEDIATRIC NURSING (1 unit)

Two hours lecture per week for nine weeks.
Prerequisites: Admission to the third semester of the Vocational Nursing program and concurrent enrollment in V NRS 65c.
A study of etiology, symptomatology, treatment and nursing care of patients of all ages, with illnesses affecting the gastrointestinal system.

56 GASTROINTESTINAL NURSING (2 units)

Four hours lecture per week for nine weeks.
Prerequisites: Admission to the second semester of the Vocational Nursing program and concurrent enrollment in V NRS 65b.
A study of etiology, symptomatology, treatment and nursing care of patients of all ages, with illnesses affecting the gastrointestinal system.

57 RESPIRATORY NURSING (2 units)

Four hours lecture per week for nine weeks.
Prerequisites: Admission to the second semester of the Vocational Nursing program and concurrent enrollment in V NRS 65b.
A study of the etiology, symptomatology, treatment and nursing care of patients of all ages, with illnesses affecting the respiratory system.
ENDOCRINE NURSING (1 unit) F S
Two hours lecture per week for nine weeks.
Prerequisites: Admission to the third semester of the Vocational Nursing program and concurrent enrollment in V NRS 65c.
A study of etiology, symptomatology, treatment and nursing care of patients of all ages with disorders of the endocrines.

MATERNITY NURSING (2 units) F S
Two hours lecture per week.
Prerequisites: Admission to the third semester of the Vocational Nursing program and concurrent enrollment in V NRS 65c.
A study of all phases of the maternity cycle and the nursing care of the obstetrical patient and the newborn infant.

ORTHOPEDIC NURSING (2 units) F S
Four hours lecture per week for nine weeks.
Prerequisites: Completion of the first semester of the Vocational Nursing program and concurrent enrollment in V NRS 65b.
A study of the disease conditions of the musculoskeletal system in relation to causes, symptoms, diet, medications, nursing care, prevention and rehabilitation.

GENITOURINARY NURSING (2 units) F S
Four hours lecture per week for nine weeks.
Prerequisites: Completion of the first semester of the Vocational Nursing program and concurrent enrollment in V NRS 65b.
A study of the etiology, symptomatology, treatment and nursing care of genitourinary conditions in patients of all ages.

NEUROSENSORY NURSING (2 units) F S
Four hours lecture per week for nine weeks.
Prerequisites: Completion of the second semester of the Vocational Nursing program and concurrent enrollment in V NRS 65c.
A study of the etiology, symptomatology, treatment and nursing care of neurosensory conditions in patients of all ages.

INTEGUMENTARY NURSING (1 unit) F S
Two hours lecture per week for nine weeks.
Prerequisites: Completion of the second semester of the Vocational Nursing program and concurrent enrollment in V NRS 65c.
A study of the etiology, symptomatology, treatment and nursing care of conditions of the integumentary system in patients of all ages.

CLINICAL PRACTICE (6–7–7 units) F S
20–20–20 hours of clinical laboratory per week.
Prerequisites: Admission to the Vocational Nursing program and concurrent enrollment in Vocational Nursing classes.
Introduction to nursing procedures and clinical experience in nursing care of patients with disease conditions of body systems.

HEALTH EDUCATION (H ED)

PRINCIPLES OF HEALTH EDUCATION (2 units) F S SS
Two hours lecture.
Prerequisite: None.
An examination of today's most important health problems and practical means of effectively dealing with them. Major topics include mental and emotional health, nutrition, physical fitness, human sexuality, the nature of alcohol and tobacco and their effects upon the body, environmental health, consumer affairs, communicable diseases and chronic disorders.

PRINCIPLES OF HEALTH EDUCATION (2 units) F S
Three hours lecture.
Prerequisite: None.
For description, see H ED 1.

HEALTH EDUCATION AND FIRST AID (3 units)
Three hours lecture.
Prerequisite: None.
An examination of today's most important health problems and practical means of effectively dealing with them. Major topics include mental and emotional health, nutrition, physical fitness, human sexuality, and nature of alcohol and tobacco and their effects upon the body, environmental health, consumer affairs, communicable diseases and chronic disorders. Also covers Standard First Aid, including wounds and their care, shock, artificial respiration, C.P.R., injuries, burns, effects of heat and cold and the transportation of the injured. H ED 3 is equivalent to H ED 1 or 2 and Ph ED 31a.
50 APPLIED HEALTH SCIENCE (3 units)  

Three hours per week.  
Prerequisite: None.  
A practical approach to the study of health concepts and scientific principles designed to enable the student to improve and maintain his total health for more effective living, to provide the student with sound guidelines for making intelligent decisions about his health and that of others, and to challenge the student to involvement in campus and community activities for improved environmental health conditions.

HEALTH SCIENCE  
(HL SC)

1 SURVEY OF ANATOMY AND PHYSIOLOGY (4 units)  

Six hours lecture and demonstration/laboratory.  
Prerequisite: None.  
A first course in integrated life science for students in health science programs. Principal emphasis is on the structure and function of human organ systems. Also includes cell structure and function, human development and human heredity. Not open to students with credit in ANAT 54.

2 PHYSIOLOGY OF SYSTEMS AND CELLS (5 units)  

Three hours lecture and six hours laboratory.  
Prerequisites: HL SC 1 and CHEM 11 with a grade of “C” or higher; NURS 1 or equivalent (may be taken concurrently).  
An integrated science course designed for students in the Associate Degree Nursing Program. Designed to develop an understanding of the fundamental concepts of human physiology. Human anatomy and biological chemistry are reviewed where necessary. Pathology, particularly medical microbiology, is introduced where applicable.

3 INTEGRATED PATHOPHYSIOLOGY (5 units)  

Three hours lecture and six hours laboratory.  
Prerequisites: HL SC 2 and NURS 2 or equivalent (may be taken concurrently).  
An advanced biological science course designed for Associate Degree Nursing students. The lectures approach disease from thirteen pathophysiological processes, considering the disease model, clinical aspects, pathophysiology and the disease management. Actual patient medical records and clinical experience will be related to the lecture and laboratory activities.

Hebrew  
See Foreign Languages
10 THE ADAMS CHRONICLES, 1750–1900 (3 units)

Thirteen television programs, eighteen hours of seminars and testing and programmed study guide.
Prerequisite: None.
A social history of the U.S. from 1750 to 1900, centered around thirteen television dramatizations of the lives of four generations of the Adams family, showing their role in major events of the period. Presented during thirteen consecutive weeks by local PBS stations, the television series will be augmented by three books: a textbook paralleling the programs, an anthology of readings providing background on the times covered in the series, a study guide that integrates the video and print portions of the course. The television series is produced by WNET-Channel 13 in New York City with grants from the National Endowment for the Humanities, the Andrew W. Mellon Foundation, and the Atlantic Richfield Corporation.

12 THE JUDEO-CHRISTIAN TRADITION (3 units)

Three hours lecture.
Prerequisite: None.
A one semester history of the origins and the subsequent global development of the Judeo-Christian tradition. Focus will be on the institutions, theology and personalities of that tradition down to the present. (Formerly HIST 12a-12b.)

15a–15b HISTORY OF ENGLAND AND GREATER BRITAIN (3–3 units) F S

Three hours lecture.
Prerequisite: None.
Covers the full sweep of British history from the Celto-Iberian origins to the present. Besides tracing the major political and economic developments, the course deals with the constitutional evolution of English institutions and the cultural and social foundations of Britain's contributions in the fields of religion, philosophy, science and literature. 15a covers the Celtic period through 1689. 15b covers the Revolutionary settlement to the present.

16 TWENTIETH CENTURY UNITED STATES (3 units) F S

Three hours lecture.
Prerequisite: None.
History of the United States since its emergence as a world power late in the 19th century. Special emphasis is placed upon the foreign relations, and military history of the United States.

17a–17b HISTORY OF THE UNITED STATES (3–3 units) F S SS

Three hours lecture.
Prerequisite: Qualifying score on a college aptitude test or “C” or higher in SOC S53a.
A survey of the political, economic and cultural history of the United States from earliest colonial times to the present. Fulfills code requirements in the U.S. Constitution, American history and institutions and California state and local government. 17a includes a study of the U.S. Constitution and Federal Government. 17b includes a study of California state and local government.

18a HISTORY OF EARLY CALIFORNIA (3 units)

Three hours lecture.
Prerequisite: None.
The political, economic, social and cultural development of California from earliest times to 1870. Includes the Spanish, Mexican, and Early American periods. Satisfies the code requirement in U.S. Constitution, American history and institutions. Not open to students with credit in HIST 18.

18b MODERN CALIFORNIA (3 units) S

Three hours lecture.
Prerequisite: None.
The student will examine the historical environment which has produced modern California, including political, economic, social, and cultural development. Topics will include: influence of the Southern Pacific, Bonanza Farms and water disputes, the Constitution of 1879, the 1906 San Francisco earthquake, the Owens Valley controversy, John Muir and the conversation ethic, “Okies” and “Arkies,” the movie and TV industry, and the contribution of ethnic minorities. Fulfills code requirements in California state and local government.

19a–19b HISTORY OF ASIAN CIVILIZATIONS (3–3 units) F S

Three hours lecture.
Prerequisite: None.
A survey of the cultural, religious and political history of the Islamic World, Indian civilization, the cultures of Southeast Asia and the civilizations of China, Korea and Japan. Emphasizes the problems of political and economic development in the 20th Century.

20a–20b BLACK HISTORY (3–3 units) F S

Three hours lecture.
Prerequisite: None.
24 WAR AND CIVILIZATION (3 units) F S
Two hours lecture and one hour lecture-discussion.
Prerequisite: HIST 17a or 17b or permission of instructor.
The historical cycles of violence, causes and characteristics of war, behavior of escalation, attributes of insurgency, the course of arms races, and the impact of war on civilization. Use of simulations in international relations as appropriate.

27 HISTORY OF AVIATION (3 units) F S
Two hours lecture and one hour lecture-discussion of flight from the earliest records to the present.
Emphasizes the effect of aviation on civilization and culture.

30a HISTORY OF MEXICO (3 units)
Three hours lecture.
Prerequisite: None.
A survey of the history of Mexico from Pre-Columbian times to the present. Includes an examination of Mexico's relations with the United States, with an emphasis on the influence of the United States constitution on Mexico’s political history. Fulfills code requirements in U.S. Constitution, American history and institutions. Not open to students with credit in CH ST 30a.

30b HISTORY OF CHICANOS (3 units)
Three hours lecture.
Prerequisite: None.
A survey of the history of the Chicanos, with an emphasis on the development of the Southwest. The course reviews Pre-Columbian contributions to civilizations, then examines in depth the conquest of the Aztecs by the Spanish, the settlement and development of the Southwest, the Mexican War of 1846–1848, the effects of the Mexican Revolution, the contributions of Mexicans/Chicanos to history, and issues affecting Chicanos today. Fulfills code requirements in California state and local government. Not open to students with credit in CH ST 30a.

31 CIVIL WAR AND RECONSTRUCTION (3 units) S
Three hours lecture.
Prerequisite: none.
A study of the social, intellectual, political and economic problems of the U.S. during the ante-bellum, Civil War and Reconstruction periods.

33 THE ASIAN AMERICAN EXPERIENCE (3 units) F S
Three hours lecture/discussion.
Prerequisite: None.
The student will acquire a historical and sociological background of the Asian experiences in the United States from the immigration period to the present. Asian American students can acquire a better understanding of their cultural history, and non-Asian students can discover the contributions of an important cultural group generally neglected in traditional history courses. The student will learn the cultural heritage of China, the Philippine Islands and Japan in order to better understand Asian Americans and the major problems and issues they encountered in this country as, for example, racism, immigration quotas, naturalization and property ownership laws, and evacuation and relocation.

36 HISTORY OF NATIVE AMERICANS (3 units) F
Three hours lecture.
Prerequisite: None.
A study of the American Indian including a survey of origins, customs and religion. The main emphasis will be on encounter with white expansion and United States governmental policies.

38 RUSSIA SINCE 1800 (3 units) F
Three hours lecture/discussion.
Prerequisite: None.
Emphasizes the continuity of Russian institutions and values from Tsarist times through the Revolution and down to the present time. Emphasizes a historical approach, although the last four weeks of the course will be devoted exclusively to the study of the functions and institutions of the contemporary USSR.

39 WORLD WAR II (3 units)
Three hours lecture-discussion.
Prerequisite: None.
The student will examine the historical environment which produced World War II, including international economic and ideological conflicts. Also, the student will study the course of the war, militarily, politically and diplomatically. Examples of topics covered are Pearl Harbor, Rommel the Desert Fox, Stalingrad, Battle of the Bulge, Leyte Gulf. Diplomatic conferences covered are, Casablanca, Teheran, Yalta, Potsdam.

40 THE FAR WESTERN FRONTIER (3 units) F S
Three hours lecture per week.
Prerequisite: None.
For students of Western Americana. A history of the Transmississippi West from 1700 to 1900. Topically traces the exploration and settlement of the West. Deals with the fur-trapping mountain men, the Western Indians and the Army, the mining, cattle and farming frontiers.
**45 ANDALUSIA/A STUDY TOUR (1 unit)**

One hour lecture/two hours activity/laboratory.
Prerequisite: None.
The student will acquire an appreciation for and understanding of the history and culture of Andalusia (Southern Spain) through visits to museums, historical sites and the chief centers of contemporary Andalusia. Although the students will travel as a group, the individual student will be encouraged to make independent forays, alone or in small groups, to various sites of interests, to be selected from a list compiled by the instructor.

**51 HISTORY OF KERN COUNTY (3 units)**

Three hours lecture.
Prerequisite: None.
A history of the Kern County area, from the earliest times to the present. Besides a study of the geologic and geographic characteristics of the area, the course includes a study of the economic, cultural and political life of the people who have inhabited the area from aboriginal times.

**Horticulture**

See Agriculture

**INDUSTRIAL DRAWING**

**IN DR**

- **30a–30b INDUSTRIAL DRAWING (3–3 units)**

  Six hours per week.
  Prerequisite: 30a or two years of high school drafting with grades of “B” or higher prerequisite to 30b.
  Fundamentals of drafting, use of instruments and scales. Lettering, sketching, geometric constructions, orthographic projection and standards of dimensioning. Second semester includes introduction to sectioning, auxiliary views, revolutions and isometric and oblique projections.

- **30c–30d ADVANCED INDUSTRIAL DRAWING (3–3 units)**

  Six hours per week.
  Prerequisite: IN DR 30b or equivalent.
  Advanced work in fundamentals, techniques and conventional practices including secondary auxiliaries, axonometric projections, developments, intersections and gears and cams. Preparation of detailed working drawings, exploded views and assembly drawings. Use of ink. Introduction to reproduction processes. Emphasis on team design work. Field trips are planned to familiarize the student with the drafting environment of large industrial facilities. Airbrush and scratchboard projects are presented for those students interested in developing these skills. This direction would assist students wishing to enter the field of technical illustration.

- **40 ELECTRONIC DRAFTING (3 units)**

  Two hours lecture and four hours laboratory.
  Prerequisites: IN DR 30a or two years of high school drafting with a grade of “B” or higher.
  Introduces the various kinds of drawing and drafting techniques used in design and the construction of electronic equipment. Emphasizes concepts of immediate value to the draftsman who may be directly concerned with the electronics industry.

- **53 PETROLEUM MAP DRAFTING (3 units)**

  Three hours per week of lectures.
  Prerequisite: IN DR 30a or equivalent.
  This course is applicable to the petroleum industry, civil engineers, state, city and county surveying offices, and other areas in which knowledge of maps and their preparation is needed. (Formerly IN DR 53a–53b.)

**INDUSTRIAL EDUCATION**

The Industrial Education Department offers the student the opportunity to select one of several occupational careers that may prepare the student to take his place in industry in related occupations upon the conclusion of his work in the major of his choice.

Courses are also designed for the student who has not had courses in high school that would prepare him for majors in this department.

Some students will find courses that will be of special benefit to satisfy their interest in the field of general education or to serve as electives.

The student may develop a program of courses with the aid of the department counselor to meet his career need. These courses may include a program of study leading to a specific career goal; the Associate in Arts Degree, or lower division courses that lead to the Bachelor of Arts or Bachelor of Science Degree, Industrial Arts or Industrial Technology.

**APPRENTICESHIP COURSES (BAKERSFIELD CAMPUS)**

Apprenticeship courses are designed for apprentices actively employed in the fields and indentured under the Shelley-Maloney California Apprenticeship Standards Act. The Apprentice Agreement states that the student will supplement on-the-job training with related classroom instruction each year of his apprenticeship.

Apprentice classes meet three to six hours per week and yield two to six units of credit. Joint Apprenticeship Committees administering each program are composed of representation from labor, management, California State Division of Apprenticeship Standards, and Bakersfield College. These committees adopt state approved standards for operation and include equal opportunity for applicants. Related training in apprenticeable occupations, in addition to those listed below, may be offered as the need arises.
Information for entry into these apprenticeship programs may be obtained from the college coordinator of apprenticeship training. All interested persons may apply for any of these programs.

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AERONAUTICS (AERO)

1 GENERAL AERONAUTICS (3 units)

Three hours lecture.
Prerequisite: None.
Gives the student an understanding of aviation as to its organization, facilities and operations. The student will also learn the fundamentals of flight to include propulsion, construction, navigation and principles of flight. The student will obtain a general knowledge of all phases of aviation.

2 BASIC GROUND SCHOOL (3 units)

Three hours lecture.
Prerequisite: None.
A basic study of the Federal Aviation Regulations for pilots, navigation, principles of flight, radio communication, safe aircraft and engine operation. Meets the requirements of the FAA approved Basic Ground School for the private pilots' certificate. (Formerly AERO 1.)

3 AVIATION WEATHER (3 units)

Three hours lecture.
Prerequisite: None.
Trains the student to pass the written portion of the Federal Aviation Agency's Private, Commercial and Instrument pilot written exam pertaining to weather. Also trains the student to recognize weather patterns that will affect his flight and safety. Includes identification of Air Mass and Frontal types and their relation to flight. Reading and interpretation of weather reports and charts, analyzing them in relation to proposed flight. Where and how to obtain weather information required to meet flight planning requirements.

4 INSTRUMENT GROUND TRAINING (3 units)

Three hours lecture.
Prerequisite: AERO 2 or background in aviation.
Covers the areas of aeronautical knowledge as it pertains to the instrument pilot. Includes the procedures for aircraft navigation and control through the use of radio navigation facilities, instruments, interpretation and landing approach procedures using ADF, ILS, VOR, GCA, DME and radar facilities. Also shows air traffic control procedures.

5 SURVEY OF AGRICULTURAL AVIATION (3 units)

Three hours lecture.
Prerequisite: None.
An overview of the industry focusing on the prospective professional custom aerial and ground applicator, advisor or sales representatives of businesses handling agricultural chemicals. Included are: application methods, safety in loading and applications, legal aspects, licensing and career opportunities.

6a PRIMARY IN-FLIGHT TRAINING (2 units)

Two hours lecture.
Prerequisite: None. AERO 2 and 3 may be taken concurrently.
Lecture explains all maneuvers and qualifications needed to become a private pilot. Students will make individual arrangements with a flight school for in-flight training.

6b INSTRUMENT IN-FLIGHT TRAINING (2 units)

Two hours lecture.
Prerequisite: Private pilot certificate. AERO 3 and 4 may be taken concurrently.
Lecture explains all maneuvers and qualifications needed to become an Instrument rated pilot. Students will make individual arrangements with a flight school for in-flight training.

6c COMMERCIAL FLIGHT TRAINING (4 units)

Two hours lecture.
Prerequisites: FAA Second Class medical certificate. AERO 1 and 3 may be taken concurrently.
Advanced In-Flight training to meet the Federal Aviation Agency flight requirements for the Commercial Pilot certificate. Students will make individual arrangements with FAA approved flight school for in-flight time.

7 AIR TRAFFIC CONTROL PROCEDURES (3 units)

Three hours lecture.
Prerequisite: None.
How to stay out of trouble with the FAA. Designed to teach the student how to operate comfortably in today's complex airspace. Will emphasize operations in radar environments to include TCA's, TRSA's, PCA's and other radar environments.
8 ADVANCED GROUND SCHOOL (COMMERCIAL PILOT) (3 units)

Three hours per week.
Prerequisite: AERO 2 or equivalent knowledge.
To teach the student advanced aircraft systems and performance associated with today's modern aircraft. The student will also gain a more complete knowledge of Federal Aviation Regulations and Air Traffic Control to enable him to pass the FAA Commercial Pilot Airplane written exam.

9 SURVIVAL AND MOUNTAIN FLYING (3 units)

Three hour lecture and a field trip.
Prerequisite: None.
It is a basic course to enable students to prepare for, and conduct flights in mountainous terrain and in the event of an emergency, how to survive under various climate conditions. This course is designed also to educate non-pilots in survival techniques in rough terrain.

10 FLIGHT INSTRUCTOR REFRESHER CLINIC (1.5 units)

Twenty-four hours lecture.
Prerequisite: Flight instructor's certificate or participating in flight training to become a flight instructor.
Designed to keep the flight instructor or flight instructor trainee abreast of the latest procedures and information being stressed by industry and the F.A.A. The course also is designed to enhance aviation safety by training flight instructors to be more aware of accident prone areas and situations. The course covers areas such as weather, airspace, teaching procedures, stalls, etc., and will be updated annually to reflect current training emphasis.

11 PILOT REFRESHER CLINIC (0.5 unit)

Twelve hours lecture.
Prerequisite: Student must possess a Student Pilot or higher certificate.
Course designed to refresh pilots on the latest information, methods and techniques in aviation. The information contained in this highly concentrated course will by necessity be varied with each presentation. The course will comply with the oral requirements of the flight review required by Federal Aviation Regulations, Part 61.57, of all pilots.

AIR CONDITIONING and REFRIGERATION (AC RF)

54a–54b AIR CONDITIONING AND REFRIGERATION (3–3 units)  

One hour lecture and six hours laboratory
Prerequisite: AC RF 54a: MATH 54 or equivalent (may be taken concurrently), ELE T 1 or 52a–52h, or 54a or equivalent, or permission of instructor. 54b: AC RF 54a or equivalent.
Principles of refrigeration and air conditioning applied to domestic and commercial systems. Repair and maintenance of equipment.

APPLIANCE REPAIR (APL R)

52a–52b APPLIANCE REPAIR (3–3 units)

Two hours lecture, four hours demonstration/laboratory.
Prerequisite: An interest in the job opportunities available in the field of appliance service and repair, or current related employment.
Operations, service and repair of home appliances. 52a includes dish washers, refrigerators, freezers, garbage disposal, rubbish compactors, etc. Training includes understanding and application of basic principles of electricity and characteristics of natural and liquified petroleum gasses as required to properly service current appliance applications. (Formerly IND E 52a–52h.)

AUTO

1 BASIC AUTO (3 units)

Two hours lecture and four hours laboratory/demonstration.
Prerequisite: None.
Provides basic maintenance theory and shop practice for automobiles, including engine maintenance service, automotive safety requirements, automotive lubrication, automotive brakes, cooling systems, exhaust systems, fuel systems, suspension and wheel.
51a-51b-51c-51d AUTOMOTIVE DIESEL (2-2-2-2 units)  
Two hours lecture and one hour laboratory.  
Prerequisite: None.  
Theory and practice of servicing and maintaining automotive-type diesel engines including fuel injection and starting systems.

52a-52b AUTOMOTIVE FUNDAMENTALS (2-2 units)  
Three hours lecture and demonstration.  
Prerequisite: None.  
A general automotive familiarization course.

56a-56b AUTO BODY REPAIR (3-3 units)  
One hour lecture and six hours laboratory.  
Prerequisites: WELD 1 or WELD 70 (may be taken concurrently). WELD 1 and AUTO 56a prerequisite to AUTO 56b.  
Repairing and refinishing of auto bodies. Provides technical information and manipulative experience in the basic techniques, tools of the trade and procedures as used in the auto body and paint shops. Recommended for auto majors who have an interest in entering automotive insurance appraisal work.

56c-56d ADVANCED AUTO BODY REPAIR (3-3 units)  
One hour lecture and six hours laboratory.  
Prerequisite: AUTO 56b is prerequisite to AUTO 56c. AUTO 56c is prerequisite to AUTO 56d.  
Deals with major rebuilding and refinishing of auto bodies. Provides technical information and manipulative experience in the more advanced techniques and procedures involved in repairing major body damage and complete refinishing problems. Includes advanced spray painting techniques, materials and procedures with emphasis on production shop tools and methods. This is an advanced course and requires the student to develop skills acceptable for job entry in the trade.

57 PARTS SALES AND MANAGEMENT (2 units)  
Three hours per week.  
Prerequisite: None. Automotive or similar experience is desirable.  
Provides training that will enable the student to work as a parts man in wholesale and retail parts departments. Parts selling and parts department management is a major objective of the course.

59 AUTOMOTIVE AIR CONDITIONING (2 units)  
One hour lecture and two hours laboratory/demonstration.  
Prerequisite: AUTO 1 or equivalent.  
Study of the principles and theory of automotive air conditioning systems. Laboratory practice in the installation, service and repair of automotive air conditioning.

62 AUTOMATIC TRANSMISSIONS (2 units)  
Three hours per week.  
Prerequisite: None.  
Develops an understanding of the design and operating principle of automatic transmissions. Provides actual work experiences in the servicing and maintenance of automatic transmissions.

63 AUTO CARBURETION (2 units)  
Three hours lecture.  
Prerequisite: AUTO 1 or one year of high school auto shop or trade experience.  
Theory and servicing of automotive fuel system components including theory of manifolding.

64 AUTOMOTIVE ELECTRIC SYSTEMS (2 units)  
Three hours lecture.  
Prerequisite: AUTO 1 or one year of high school auto shop or trade experience.  
Repair and adjustment of automotive electrical equipment. Operation of precision test equipment as used in major auto repair shops.

65 AUTOMOTIVE EMISSION CONTROL DEVICES (2 units)  
Two hours lecture/demonstration and one hour laboratory.  
Prerequisite: AUTO 1 or equivalent.  
Designed to give the student the needed technical knowledge and skills to service all types of crankcase ventilating devices, exhaust emission control systems and vapor control systems. The laws controlling emission on all automobiles in California. How to trouble shoot these systems and to use equipment necessary to test for emission valves. Designed to give the student the necessary knowledge to pass the California State Class A smog test.

70 AUTOMOTIVE MAINTENANCE AND SERVICING FOR WOMEN (1 unit. Limit 2 units.)  
Two hours lecture, one hour laboratory per week for nine weeks.  
Prerequisite: None.  
Introduction to the automobile, its mechanical parts and how they function. Minor maintenance and servicing. This course may be repeated one time for credit.

71 AUTO PAINTING (3 units. Limit 6 units)  
Two hours lecture, four hours demonstration/laboratory.  
Prerequisite: None.  
Demonstrations and practical experience in gaining basic knowledge in the auto painting trade. Provides technical information and basic techniques in body and fender work, touch-up and painting of automobiles as well as information about paints used in this trade.
73 WHEEL AND FRAME ALIGNMENT (2 units)

One hour lecture, two hours demonstration/laboratory.
Prerequisite: None.
Designed for those actively engaged in the wheel and frame aligning area of the automotive repair industry. The course will cover effects, factors, specifications, influences and adjustments of correct and incorrect installations.

74 AUTOMOTIVE DISC AND DRUM BRAKE SERVICE (2 units)

One hour lecture, two hours demonstration/laboratory.
Prerequisite: None.
Designed primarily for the person who wants to learn about brake service in the automotive repair industry.

100 ELECTRICAL SYSTEM SERVICE (6 units)

Twenty hours per week for nine weeks.
Prerequisite: AUTO 1 or H.S. auto.
Provides theory and laboratory servicing of major automotive electrical units.

101 FUEL SYSTEM SERVICE (6 units)

Twenty hours per week for nine weeks.
Prerequisite: AUTO 1 or H.S. auto.
Provides theory, laboratory instruction and on-the-engine instruction in servicing fuel system components.

102a AUTOMOTIVE ENGINES (12 units)

Twenty hours per week for eighteen weeks.
Prerequisite: AUTO 1 with a grade of "C" or higher or one year of H.S. auto with a grade of "B" or higher.
Practical shop experience involving automotive engine repair and maintenance operations.

102b AUTOMOTIVE ENGINES MACHINING (12 units)

Twenty hours per week for eighteen weeks.
Prerequisites: AUTO 102a, 100 and 101.
Practical shop experience involving automotive engine machining, repair and operations.

103 BRAKE SYSTEMS—AUTOMOBILES AND TRUCKS (6 units)

Twenty hours per week for nine weeks.
Prerequisite: One year H.S. auto shop or working in automotive trade.
A specialized study of brake systems, hydraulic, vacuum and air.

104 AUTOMOTIVE SAFETY, MAINTENANCE AND SERVICE (6 units)

Twenty hours per week for nine weeks.
Prerequisite: None.
Deals with service station attendance, lubrication, dealership repair.

105 AUTOMATIC TRANSMISSIONS (6 units)

Twenty hours per week for nine weeks.
Prerequisite: AUTO 1 or equivalent.
Deals with the problems of trouble shooting, diagnosing, adjusting, disassembly and overhaul of automatic transmissions.

106 AUTO EMISSION CONTROL DEVICES AND RELATED TUNE-UP (6 units)

Twenty hours per week for nine weeks.
Prerequisite: AUTO 1 or equivalent.
Designed to give the student the needed technical knowledge and skills to service all types of crankcase ventilating devices, exhaust emission control systems and vapor control systems. Students who complete this course should be able to obtain their California State Class "A" Smog License.

107a AUTO BODY REPAIR AND REFINISHING (12 units)

Twenty hours per week for eighteen weeks.
Prerequisite: WELD 1 or WELD 70 (may be taken concurrently).
Lectures and demonstrations given under "live" conditions in the laboratory. Provides both theory and assigned job tasks related to that which will be required for employment and/or advancement.

107b ADVANCED AUTO BODY REPAIR AND REFINISHING (12 units)

Twenty hours a week for eighteen weeks.
Prerequisites: AUTO 107a and WELD 1 or WELD 70.
Provides both theory and practice in job related tasks.

108 AUTOMOTIVE SUSPENSION, STEERING AND ALIGNMENT (6 units)

Twenty hours per week for nine weeks.
Prerequisite: WELD 1 (may be taken concurrently), one year high school auto shop or working in automotive trade.
Automotive suspension, steering and alignment.
109 AUTO POWER TRAINS — AUTOMOBILES AND TRUCKS (6 units)  
Twenty hours per week for nine weeks.  
Prerequisite: One year high school auto shop or working in automotive trade.  
Engine rebuilding and repairing, power train rebuilding and repairing, clutches, standard transmissions, overdrives, drive lines and differentials.

110 AUTOMOTIVE AIR CONDITIONING (6 units)  
Twenty hours per week for nine weeks.  
Prerequisite: AUTO 1 or equivalent.  
A study of the principles and theory of automotive air conditioning systems. Laboratory practice in the installation, service and repair of automotive air conditioning.

ELECTRICAL TECHNOLOGY (ELE T)

1 BASIC ELECTRICITY (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisite: None.  
An introductory course on basic electric principles covering direct current, alternating current circuits, magnetic circuits, sources of electricity and DC and AC measuring instruments; basic DC and AC motors and generator principles.

2 ELECTRONICS FOR MEDICAL TECHNOLOGY (3 units)  
Three hours lecture/demonstration.  
Prerequisite: None.  
The student will understand the basic laws of electronics as they apply to medical technology, the principles of amplifiers, recording devices and electronic displays. They will also understand the problems of interfacing the human body with electronic devices.

51a—51b INTRODUCTION TO ELECTRICAL POWER SYSTEMS (2—2 units)  
Three hours lecture.  
Prerequisite: 51a prerequisite to 51b.  
Consideration is given to simple d-c and a-c circuits and electrical apparatus. An introductory course for students without previous electricity or physics courses.

54a—54b FUNDAMENTALS OF ELECTRICITY (4—4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: 54a prerequisite to 54b. MATH 53a must be taken concurrently with 54a, MATH 53b with 54b.  
Consideration is given to d-c and a-c circuits. An introductory course for students without previous work in electricity.

55 ELECTRO MECHANICAL DEVICES (4 units)  
Two hours lecture and six hours laboratory.  
Prerequisites: A grade of "C" or higher in ELE T 54a—54b and MATH 53a OR one year of high school electricity and one year of high school algebra.  
Covers the basic principles of design and construction, operation characteristics, efficiency and appliance of direct and alternating current machines and electro-mechanical devices.

58 INTRODUCTION TO SEMICONDUCTORS (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: ELE T 54a, 54b, 52a, 52b or a background in electronics.  
Covers transistor fundamentals, principles of linear semiconductors circuitry and principles of non-linear semiconductors circuitry.

59a SEMICONDUCTOR CIRCUIT ANALYSIS (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: MATH 53a; ELE T 54a or equivalent background in electronics.  
Presents the basic principles of analysis and design of transistor circuits; includes bipolar transistors, field effect transistors, and linear integrated circuits.

59b DIGITAL ELECTRONICS (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisite: ELE T 59a.  
Presents the basic principles of non-linear circuit analysis. Considered will be pulse, logic and other non-linear circuits. A large portion of laboratory time is devoted to work with logic trainers.

66a COMMUNICATIONS ELECTRONICS (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: MATH 53a—53b and ELE T 54a—54b.  
Designed to prepare students for F.C.C. examinations (second class telephone license), for positions in broadcast stations and in other electronics fields.

66b COMMUNICATIONS ELECTRONICS (3 units)  
Two hours lecture and three hours laboratory.  
Prerequisite: ELE T 66a.  
Designed to prepare students for F.C.C. examinations (second class telephone license), for positions in broadcast stations and in other electronics fields.
67 MICRO-WAVE COMMUNICATIONS (3 units)

Two hours lecture and four hours laboratory.
Prerequisite: ELE T 66b may be taken concurrently.
Theory of micro-wave behavior and modes of transmission are tested. Laboratory work
involves measurements and circuitry concepts.

68 MICROPROCESSOR BASED MICROCOMPUTER TECHNOLOGY (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: ELE T 59b or ELE T 58 or a working understanding of digital logic and
application knowledge of TTL devices.
Investigation and analysis of a microprocessor based microcomputer. Students will
program and interface individual machine language micro-computer trainers.

50a-50b SMALL ENGINE – MOTORCYCLE REPAIR (3–3 units)

One hour lecture and six hours laboratory.
Prerequisites: Interest in job opportunities related to small engine/motorcycle repair or
current related employment.
Provides theory and practice in a wide variety of small engine and motorcycle repair
applications. Includes service practice on engines, diagnosis, trouble shooting, tune-up,
brakes, clutches, transmission units, frames, electrical systems, carburetion, lubrification,
ownership maintenance and care, service repair shop operation principles and
organization. 50a emphasizes the four stroke cycle engine and 50b the two stroke cycle
engine.

80 TOPICS IN INDUSTRIAL EDUCATION (0.5–3 units)

Eighteen hours lecture/demonstration per unit.
Concentrates on current topics in industrial education areas. Some of the topics are:
diesel fundamentals and advanced diesel, diesel electronics, auto refrigeration. Other
topics may be considered, as appropriate.

81 SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION (1–3 units. Limit 9 units.)

Eighteen hours of student participation per one unit of credit.
Prerequisite: A minimum of six (6) units completed in the area of concentration of the
special problem assignment.
Designed to provide special and advanced studies not covered by regular course offerings
to individual students. Special problems can be assigned in each area of concentration in
the departmental curriculum such as Aeronautics, Automotive, Electronics, Machine Tool
Metalworking, Solar, Welding, etc.

MACHINE SHOP
(MCH S)

1 ELEMENTARY MACHINE METALWORKING (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: None.
a study of machine tool operation including the lathe, milling machine, shaper, drill press
and grinder. Practice is also provided in the use of hand tools and precision measuring
instruments.
52a ELEMENTARY MACHINE SHOP (2 units)  
F S  
One hour lecture, one hour lecture/demonstration and one hour laboratory.  
Prerequisite: None.  
A study of the lathe, milling machine, drill press, grinding machines, hand tools and precision measuring instruments.

52b–52c INTERMEDIATE MACHINE SHOP (2–2 units)  
F S  
Two hours lecture/demonstration and one hour laboratory.  
Prerequisite: MCH S 1 or 52a.  
Continued instruction on lathes, shapers, milling machines, grinding machines, hand tools and precision measuring instruments.

52d ADVANCED MACHINE SHOP (2 units)  
Two hours lecture/demonstration and one hour laboratory.  
Prerequisite: MCH S 52c.  
Advanced instruction in job related skills for employment or advancement in the machine tool metalworking industry or for satisfaction of a student’s individual achievement goals in metalworking techniques.

53b INTERMEDIATE MACHINE SHOP (3 units)  
Two hours lecture/demonstration and four hours laboratory.  
Prerequisite: MCH S 1.  
A study of machine tool metalworking procedures including the operation of the lathe, milling machine, shaper, drill press and grinder. Practice is provided in the use of hand tools and measuring instruments. Metal casting and foundry practices are studied.

53c INTERMEDIATE MACHINE SHOP (3 units)  
Two hours lecture/demonstration and four hours laboratory.  
Prerequisite: MCH S 53b.  
Instruction in machine tool operation including the lathe, milling machine, shaper, grinders, precision measuring instruments and hand tools.

53d ADVANCED MACHINE SHOP (3 units)  
Two hours lecture/demonstration and four hours laboratory.  
Prerequisite: MCH S 53c.  
Advanced instruction in job related skills for employment or advancement in the machine tool metalworking industry or for satisfaction of a student’s individual achievement goals in metalworking techniques.

68a–68b VOCATIONAL MACHINE SHOP (8–8 units)  
F S  
Fifteen hours per week.  
Prerequisites: MCH S 53b.  
Advanced machine shop for the vocational machine trades students. Additional experience is provided at a technical level for the students who have had basic preparation in machine tool operation, layout, moulding and casting.

MECHANICAL TECHNOLOGY (MEC T)  

54a–54b BLUEPRINT READING AND LAYOUT FOR WELDERS (2–2 units)  
F  
Three hours per week.  
Prerequisite: Basic welding knowledge.  
Covers the basic principles of reading blueprints and welding symbols. Also covers structural layout and pipe layout. Stresses basic mathematics used in layout.

59a BASIC HYDRAULICS/FLUID MECHANICS (3 units)  
Three hours lecture.  
Prerequisite: None.  
An orientation to mobile and industrial hydraulic systems as a means of power transmission. Provides an identification of terms, laws, theory, components and systems used in this general locality along with their function, performance and problems in trouble shooting and maintenance. Designed to provide material on which a beginner can base his hydraulic education and an experienced mechanic can refresh his learning.

59b ADVANCED BASIC HYDRAULICS AND FLUID MECHANICS (3 units)  
F S  
Three hours lecture.  
Prerequisite: MECH T 59a recommended or a knowledge of hydraulic fundamentals gained from experience.  
A practical approach to the understanding of advanced technical material concerning modern hydraulic systems. Concentrates on trouble shooting techniques, develops speed and skill in repair and maintenance.

59e HYDRAULICS/FLUID MECHANICS – DIAGNOSIS & REPAIR (3 units)  
Three hours lecture.  
Prerequisite: MECH T 59b.  
Trouble shooting, diagnosis and repair of mobile and industrial systems. Provides information and techniques useful in solving problems and eliminating their causes in hydraulic systems pertinent to this locality. Designed to provide material with which an experienced hydraulics mechanic or a student with a background in the field of hydraulics can add to his education.
METAL

1 GENERAL METAL (3 units) F S

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: None.
A study of the basic processes of the metalworking industry including: care and use of hand tools, familiarization with common metals and practice in metalworking processes. Fundamentals of metal casting, forging, heat treatment, machining of metals and working with sheet metal are offered.

53a-53b SHEET METALWORKING (3-3 units) F S

One hour lecture and four hours laboratory.
Prerequisite: None.
Instruction includes the materials and processes of sheet metalworking, the use of hand tools and sheet machines and pattern drafting.

PETROLEUM TECHNOLOGY (PET T)

51 FLOOR MAN TRAINING (1.5 units)

Three hours lecture plus one Saturday field trip.
Prerequisite: None.
The student will learn to understand the basic principles and components of oil well drilling, describe each drilling rig system, identify each component of the system, and briefly tell what they do.

60 INSTRUMENTATION (2 units)

Two hours lecture/discussion.
Prerequisite: None.
The student will learn basic principles and practices used in the petroleum industry for the application of automatic controls, including automation methods used for producing, processing, testing and shipping of petroleum products. Emphasis will be placed on application of design and operation of controls.

62 SINGLE PASS STEAM GENERATORS (2 units)

Two hours lecture per week.
Prerequisite: None.
A course of instruction to teach the basic principles and practices used in the application of single pass steam generators. Emphasis will be placed on design, operation, controls, trouble shooting and application.

65 FUNDAMENTALS OF THE PETROLEUM INDUSTRY (2 units) F S

Two hours lecture.
Prerequisite: None.
Student will learn the fundamentals of the Petroleum Industry including the geology of oil, exploration and drilling procedures, production practices, transportation and refining.

66 BASICS OF HYDRAULIC FRAC TURING (1 unit)

Three hours lecture/demonstration for six weeks.
Prerequisite: None.
The emphasis of the course will be on practical operations including well selection, treatment design, completion techniques, treating fluid and proppant selection, surface equipment, job calculations, safety, performing the fracturing treatment and post-treatment considerations.

67 WELL CEMENTING AND SAND CONTROL (1 unit)

Three hours lecture/demonstration for six weeks.
Prerequisite: None.
Covers well cementing, slurry design, additives, testing and cementing practices. Will also include principles which cause wells to make sand and describe the various methods of sand control.

68 FUNDAMENTALS OF ACIDIZING (1 unit)

Three hours of lecture for six weeks.
Prerequisite: None.
This course provides understanding of well acidizing, techniques applied, equipment used and related problems.

70 REFINING PROCESSES (2 units) F S

Two hours lecture/demonstration.
Prerequisite: None.
An introductory engineering technology course covering the basic processes of petroleum refining. Primarily for the petroleum technology major interested in completing the "Refining" option. Also beneficial to those working in technical areas involving petroleum refining and other chemical processes.

76 OILFIELD PRODUCTION LOGGING (1.5 units)

Three hours lecture/demonstration for nine weeks.
Prerequisite: A limited knowledge of algebra would be helpful.
The student will learn to interpret and apply the basic principles of radioactivity and temperature to well logging as needed to evaluate subsurface petroleum reservoirs.
78 OILFIELD CASED HOLE LOGGING (1.5 units)

Three hours lecture/demonstration for nine weeks.
Prerequisite: None.
The student will learn to interpret and apply the various logs and logging techniques required to evaluate subsurface oil and water formations.

RADIO REPAIR
(RADIO)

82 BEGINNERS RADIO REPAIR (2 units)

Three hours lecture and discussion.
Prerequisite: Working knowledge of elementary mathematics.
This course covers the development of the radio receiver from the beginning through the development of the superheterodyne circuit.

SOLAR

1 SOLAR HEATING AND COOLING OF RESIDENTIAL BUILDINGS (3 units)

Three hours per week.
Prerequisite: None.
Includes the fundamental operating characteristics of several types of solar energy systems, the availability of solar radiation, fundamentals of system sizing and selection and practical energy conservation measures.

SURVEYING
(SURV)

61 SURVEYING MATHEMATICS (4 units)

Three hours lecture and three hours laboratory.
Prerequisites: High school algebra, geometry, and trigonometry or equivalent.
Application of trigonometric functions and the solution of triangles to surveying. Use of the slide rule and surveying tables including interpolation and logarithms. Surveying problems applied to line direction coordinates, circular curves and calculations.

62 SURVEYING PRACTICES (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: SURV 61 or equivalent.
Designed to teach the student sights and signals, plumbing and eccentric, accuracy and theory of errors, field notes and descriptions, linear measurements and leveling, angular measurements and reference points.

63 TRAVERSE SURVEYING (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: SURV 61 or equivalent.
Traverse surveys, open, closed, deflection angles, azimuth, compass, interior angle, and angles-to-the-right. Checking traverses in field, traverse computations, error latitudes and departures, compass rule and transit rule applications, balancing a survey, plotting area computations, electronic surveys and construction surveys.

64 HIGHWAY CURVES (4 units)

Three hours lecture, three hours laboratory.
Prerequisite: Surveying mathematics or equivalent and three semesters of surveying courses.
Circular, vertical and spiral curves, super elevation, highway construction surveys, public relations and research for survey data as applied to surveying.

65 TOPOGRAPHIC SURVEYING (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: SURV 61 or equivalent.
Stadia surveying, topographic, architectural, hydrographic and photogrammetric surveys. Instrument adjustment.

66 CONTROL SURVEYING (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: SURV 61 or equivalent.
Practical astronomy, construction surveys, property surveys and laws affecting the surveyor.

67 LAND SURVEYING (4 units)

Three hours lecture and three hours laboratory.
Prerequisite: SURV 61 or equivalent.
U.S. public land surveys, triangulation and trilateration, plane coordinate system.

68 WRITING LEGAL SURVEYING DESCRIPTIONS (4 units)

Three hours lecture, three hours laboratory.
Prerequisite: Survey mathematics or equivalent and three semesters of surveying courses.
Writing legal descriptions, records search, fundamentals, control, boundaries, monuments, streets, easements, title guarantees, survey plats, professional status.
TELEVISION REPAIR (TV RP)

83 TELEVISION SERVICE AND REPAIR (3 units. Limit 6 units.)

Two hours lecture, four hours demonstration/laboratory.
Prerequisite: Basic electricity, basic radio theory, advanced radio including mathematics essential to radio and electronics.
Six hours per week as applied to service and repair of television receivers. Covers the theory of television operation and practice of systematic diagnoses.

UPHOLSTERY (UPHLS)

52a BEGINNING UPHOLSTERY (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: None.
Designed to develop manipulative and technical skills relating to all basic aspects of upholstery. Hand tools, machine sewing, layout, cutting, applications and materials are a few of the topics covered.

52b INTERMEDIATE FURNITURE UPHOLSTERY (3 units)

Two hours of lecture, demonstration, discussion, and four hours laboratory.
Prerequisite: UPHLS 52a.
Use of upholstery sewing machine, tools, and techniques of furniture upholstery. Provides students with skills in planning and design of furniture and practice in upholstery techniques.

WELDING (WELD)

1 INTRODUCTORY OXY–ACETYLENE WELDING (3 units) F S SS

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: None.
Practical welding experience in oxygen acetylene welding. A study of metals and their physical properties for welding. Welding, brazing, silver soldering and gas cutting of steel. Eighteen weeks of oxy-acetylene welding and cutting satisfies pre-vocational requirements for Welding Technology.

53 BEGINNING ARC WELDING (3 units) F S

Two hours lecture and four hours laboratory.
Prerequisite: None.
Designed to develop an understanding of basic arc welding theory and manipulative skills relating to the Shielded Metal Arc Welding process. This includes the welding to typical joints in all positions.

53c INTERMEDIATE ARC WELDING (3 units) F S

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: WELD 53b with grade of “C” or higher.
A follow up course to WELD 53b designed to advance the skills of the beginning welder. More advanced welding techniques with an emphasis on developing the skills required of out-of-position welding.

65a–65b ADVANCED WELDING (5–5 units)

Two hours lecture, eight hours laboratory.
Prerequisite: WELD 53b with grade of “C” or higher prerequisite to 65a. 65a prerequisite to 65b.
Advanced welding techniques. Special attention will be given to the skills required to successfully complete the structural plate and pipe welding qualifications tests. Both the theory and practice of gas metal arc welding, and gas tungsten arc welding of mild steel, aluminum and stainless steel will be presented.

70 INTRODUCTORY OXYGEN-ACETYLENE WELDING (2 units)

One hour lecture and two hours demonstration/laboratory.
Prerequisite: None.
Practical welding experience in oxygen-acetylene welding, gas and cutting techniques, silver brazing and silver soldering on ferrous and non-ferrous metals.

71 INTRODUCTORY ARC WELDING (2 units. Limit 4 units.)

One hour lecture and two hours demonstration/laboratory.
Prerequisite: None.
Designed to develop an understanding of basic arc welding theory and manipulative skills relating to the Shielded Metal Arc Welding process. This includes the welding of typical joints in all positions.

72 ADVANCED ARC WELDING (3 units)

One hour lecture, one hour demonstration and four hours laboratory.
Prerequisite: WELD 71 with grade of “C” or higher.
Advanced welding techniques. Special attention will be given to the skills required to successfully complete the structural plate and pipe welding qualifications tests. Both the theory and practice of gas metal arc welding, and gas tungsten arc welding of mild steel, aluminum and stainless steel will be presented.
WOOD

1 BASIC WOODWORKING (3 units)

Two hours lecture and four hours laboratory.
Prerequisite: None.
Designed to meet the transfer core program requirements for Industrial Arts teaching and Industrial Technology major. Content includes the basic woodworking processes and materials; use and care of hand tools; design, construction, and finishing of a variety of projects to acquaint the student with various processes.

2 MACHINE WOODWORKING (3 units)

Two hours lecture/demonstration/discussion and four hours laboratory.
Prerequisite: None.
A beginning machine woodworking course designed to develop skill in the use and care of woodworking machines, to develop skill in planning and design and to provide opportunities for practice of construction techniques.

52a ELEMENTARY CABINET AND FURNITURE MAKING (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: None.
A beginning machine woodworking course designed to develop skill in planning and design, and to provide opportunities for practice of construction techniques.

52b INTERMEDIATE CABINET AND FURNITURE MAKING (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: WOOD 52a.
A follow up course to WOOD 52a designed to advance the skills of the beginning student. More advanced planning and design of cabinets and furniture plus opportunities for additional practice of construction techniques.

52c ADVANCED CABINET AND FURNITURE MAKING (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: WOOD 52b.
An advanced machine woodworking course designed to increase previously acquired skills by combining basic knowledge with new practices and procedures to gain new insight in machine operation, furniture design, joinery, construction and technology.

52d ADVANCED CABINET AND FURNITURE MAKING (3 units)

Two hours lecture/demonstration and four hours laboratory.
Prerequisite: WOOD 52a, 52b, 52c or 55.
An advanced course to improve manipulative excellence in woodworking. Designed primarily for but not limited to the adult education student. Benefits to student will include original design, advanced problem solving, joinery methods, specialty setups on equipment and jig construction.

55 INTERMEDIATE CABINET AND FURNITURE MAKING (6 units)

Four hours lecture, demonstration and discussion, six hours laboratory.
Prerequisite: WOOD 2 or 52a.
A follow up course to WOOD 52a or 2, designed to advance the skills of the beginning student. More advanced planning and design of cabinets and furniture plus opportunities for additional practice of construction techniques.

55a ADVANCED CABINET AND FURNITURE MAKING (6 units)

Four hours lecture, demonstration and discussion, six hours laboratory.
Prerequisite: WOOD 55.
An advanced machine woodworking course designed to increase previously acquired skills by combining basic knowledge with new practices and procedures to gain new insight in machine operation, furniture design, joinery, construction and technology.

55b ADVANCED CABINET AND FURNITURE MAKING (6 units)

Four hours lecture, demonstration and discussion, six hours laboratory.
Prerequisite: WOOD 65a.
An advanced course to improve manipulative excellence in woodworking. Benefits to student will include original design, advanced problem solving, joinery methods, specialty setups on equipment and jig construction.

Insurance
See Business

International Relations
See Political Science

Journalism
See Communications
LIBRARY DEPARTMENT

The Library Department has responsibility for the traditional organized collections of print media and related services to readers. The department also provides the programs and services listed below.

CAREER COMMUNICATIONS (C COM)

51 COMMUNICATIONS FOR FIRE SCIENCE (3 units)

Three hours lecture and classwork.
Prerequisite: None.
Reading and writing skills with practical application in the field of fire science, including interpretation and use of technical vocabulary, composition of letters, memos, and reports with emphasis on precision and clarity. Meets English requirement for certificate in Fire Science and serves as general education elective toward the A.A. degree.

LEARNING CENTER

The Learning Center, located in the West wing of the Library, provides the following services: tutorial assistance, an Educational Diagnostic Clinic, media related to course work and other educational needs, and various service courses to assist students in reaching their educational goals.

Learning Skills 101 or Learning Skills 201 is required of full-time students reading at or below the 8th grade level or who are level 4 English and wish to enroll in English 60. Although students are encouraged to enroll at the beginning of the semester, all Learning Skills courses are open-entry and students may enroll anytime.

Carrels and lounge chairs for individual study are provided. Areas are available where students can review audio-visual materials, study in small groups, or receive tutoring.

LEARNING SKILLS (LRN S)

5 TUTOR TRAINING AND PRACTICUM (3 units) F S

One hour seminar and four hours laboratory.
Prerequisite: "B" level competency in the subject to be tutored and permission of instructor. Recommendations may be sought from student's former instructors. The student will learn essential human relations skills and methods of effective tutoring, and will put these skills into practice with tutees referred by the tutor coordinator.

70a-e STUDY SKILLS (2.5 units) F S

Six hours lecture and three hours laboratory for each 0.5 unit.
Prerequisite: 64 or above on Davis Reading Placement.
70a covers Time Management; 70b--Notetaking; 70c--Textbook Reading; 70d--Test Taking; 70e--Memory. Students may take any or all of the five mini-courses offered. Each course is designed to give practical training in studying effectively for college classes.

100 BASIC SKILLS OF ENGLISH, READING AND MATHEMATICS (6 units) SS

Four hours per day for six weeks.
Prerequisite: High school graduation.
Provides students of unrealized academic potential with intensive summer training in basic skills prior to their enrollment in college.

101 COMMUNICATION SKILLS (0.5-4 units)

Eighteen hours of classroom instruction per unit. Maximum of four units.
Prerequisite: None.
Provides students who have unrealized academic potential with intensive training in the communication skills of reading, speaking, writing and listening. May be used to satisfy all or part of the English requirement for certain programs. (See also LRN S 201.)

102 APPLIED MATHEMATICS SKILLS (1-4 units)

Eighteen hours instruction per unit. Maximum of four units. Limit of two units to students who have completed LRN S 100. LRN S 101 and 103 may be taken concurrently or sequentially. Class hours arranged.
Prerequisite: Appropriate test scores.
Provides students who have unrealized academic potential with intensive training in functional arithmetic, skills which may be applied to practical situations: whole numbers, common fractions, mix numbers, decimal fractions, per cent, squares and square roots, units of measurement, ratio and graphs. May be used to satisfy the mathematics requirement for certain programs.
105a–105b–105c–105d EDUCATIONAL DIAGNOSTIC CLINIC
(4–4–4–4 units) F S

Four hours lecture plus one or more hours of laboratory.
Prerequisite: Appropriate placement test scores and recommendation of counselor.
The Educational Diagnostic Clinic is a program for students who have average or above average intellectual potential but have specified learning disabilities. The program offers four areas of service: diagnostic testing and observation, prescriptive teaching, tutoring, and support in subjects where the students are having difficulties.

106a–106b BASIC SKILLS FOR EDUCATIONAL DIAGNOSTIC CLINIC
(1–1 unit) F S

One hour lecture.
Prerequisite: Concurrent enrollment in Learning Skills 105a or 105b.
The student will learn basic skills needed for success in college. Each student will gain a better understanding of himself, his strengths, and his potential. In 106b, the student will be led through the writing of a short research paper.

201 COMMUNICATION SKILLS (0.5–4 units)

Eighteen hours lecture and seventy-two hours lab for 3 units, or thirty-six hours lab for each unit of individual contract. Lab hours by arrangement. May be repeated with instructor permission for greater proficiency. No credit will be given for time spent repeating modules.
Prerequisite: None.
Provides prescriptive training in the communication skills of reading, speaking, writing and listening. Individual programs may include a broad range of communication skills or be limited to specific problems such as spelling or punctuation.

202 APPLIED MATHEMATICS SKILLS (1–4 units)

Open entry-open exit. For description see LRN S 102.

62 DEVELOPMENTAL READING (3 units)

Three hours lecture.
Prerequisite: Appropriate test scores.
Diagnosis of individual reading problems. Exercises for improved comprehension, vocabulary building, speed practice, scanning, note-taking, outlining and summarizing. Encouragement of wide reading in defined areas. Fulfills three units of the English-Speech requirement for the A.A. degree. May not be used for advancement into ENGL 1 regardless of grade earned, unless the teacher specifically reclassifies the student into level A or ENGL 1a.

77c TEACHING THE LAUBACH LITERACY PROGRAM (3 units) F S

Three hours lecture.
Prerequisite: None.
Covers problems of learning the English language with emphasis on the sound-system of English. Discusses the Laubach Literacy method and materials, supplementary vocabulary lists and drills, teaching aids, and materials for review and reinforcement. Develops skills in writing high-interest literacy instruction. Introduces language problems of the exceptional student and the Laubach method of basic language skills instruction. Identical to TCH A 77c.

90a–90b HELPING THE RELUCTANT READER (0 units)

Three hours lecture/discussion/workshop for eight weeks.
Prerequisite: None.
The student will obtain techniques for working with his/her child in the act of reading. Awareness of the importance of the task of home instruction in reading, the ability to successfully tutor his/her own child, an overview of the many factors contributing to reading success, and a knowledge of many and varied reading and phonic rules, skills and games will be obtained by the students.

262 DEVELOPMENTAL READING (3 units)

Three hours lecture and classwork.
Prerequisite: None. Students should be reading at least at eighth grade level.
Meets three units of the English requirement for the A.A. degree, but is not transferable. The student will do exercises to improve rate and comprehension, build vocabulary, and strengthen memory. He will read and evaluate novels and nonfiction. Open entry, open exit.

128

Machine Shop
See Industrial Education
MATHEMATICS (MATH)

A ELEMENTARY ALGEBRA (3 units) F S SS

Five hours per week.
Prerequisite: Qualifying score on entrance examination and/or counselor approval.
Fundamental concepts and mathematical processes, first degree equations, special
products and factoring, fractions and fractional equations, ratios, proportions, radicals,
exponents, simultaneous linear equations, quadratic equations.

B GEOMETRY (3 units) F S SS

Five hours per week.
Prerequisite: MATH A or one year of high school algebra.
Elementary logic, fundamental geometric constructions, congruent triangles, similar
triangles, geometric proofs, parallel lines, parallelograms, circles, loci, ratio and
proportion, similar triangles, areas, “pythagorean” theorem and its applications, geometry
of space and coordinate geometry.

C PLANE TRIGONOMETRY (3 units) F S SS

Three hours lecture.
Prerequisites: Plane geometry and grade of “C” or higher in either advanced high school
algebra or MATH D.
The use of logarithms and trigonometric functions in the solution of right and oblique
plane triangles; application of trigonometric functions to problems encountered in the
study of engineering including graphing and solution of trigonometric equations. The
analytical approach to trigonometry is stressed.

D INTERMEDIATE ALGEBRA (4 units) F S SS

Four hours lecture.
Prerequisites: Grade of “C” or higher in either one year of high school algebra or
MATH A.
Topics covered are sets and set operations, fundamental operations, signed numbers,
factoring, linear equations, systems of equations, simple and complex fractions,
functional notation, simple graphs, exponents and radicals, quadratic equations, ratio,
proportion and variation, determinants, and the binomial theorem.

I MATHEMATICAL ANALYSIS (3 units) F S SS

Three hours lecture.
Prerequisites: MATH D and C or equivalent.
a general review of the basic concepts of algebra and trigonometry which are considered
necessary and essential for students preparing to study calculus, science or engineering.
Specific topics include the real number system, algebraic structure, sets, logic, functions
and relations, variation, the transcendental functions (including exponential, logarithmic
and trigonometric), the binomial theorem, complex numbers, inequalities, series and
progressions, theory of equations, rapid curve sketching and mathematical induction.

2 BASIC FUNCTIONS AND CALCULUS FOR BUSINESS (3 units) F S

Three hours lecture.
Prerequisite: Two years of high school algebra with a present working knowledge of
algebra or MATH D or equivalent.
Modern concepts in mathematics including functions, matrix algebra and sequences; the
basic concepts of differential calculus with an introduction to integral calculus involving
numerous applications to business.

6a ANALYTIC GEOMETRY AND CALCULUS I (4 units) F S

Four hours lecture.
Prerequisites: MATH C, D, and 1 or equivalents, with a grade of “C” or higher in each
course.
A unified course in the elements of analytic geometry, differential calculus and an
introduction to integration of algebraic functions.

6b ANALYTIC GEOMETRY AND CALCULUS II (4 units) F S SS

Four hours lecture.
Prerequisite: MATH 6a with a grade of “C” or higher.
Continuation of course I. Analytic geometry, differential and integral calculus.
6c CALCULUS III (4 units)  
Four hours lecture.  
Prerequisite: MATH 6b with a grade of "C" or higher.  
Continuation of course II. Partial differentiation, multiple integrals, vector analysis, 
including theorems of Green, Gauss and Stokes; infinite series, including Taylor and 
Fourier, complex variables.

6d CALCULUS IV (4 units)  
Four hours lecture.  
Prerequisite: MATH 6c  
Linear algebra, linear and non-linear differential equations; Laplace transforms.

15 MATHEMATICS FOR GENERAL EDUCATION (3 units)  
Three hours per week.  
Prerequisites: Enrollment in a transfer program.  
Topics from the history of mathematics, the relationship of mathematics to modern 
society, elementary theory of probability and statistics, the types and uses of computers, 
set theory, number theory and logic.

22 ELEMENTARY PROBABILITY AND STATISTICS (3 units)  
Three hours lecture.  
Prerequisite: MATH D or equivalent.  
Basic elements of probability and expectation with some mathematical derivations; 
median, mode, standard deviation, regression and correlation. Large and small sample 
techniques with theory of prediction and confidence levels. Non parametric statistics of 
chi-square.

23 FINITE MATHEMATICS (3 units)  
Three hours lecture.  
Prerequisite: MATH D or 22 or equivalent with "C" or higher.  
An introduction to modern mathematics including selected topics in logic, set theory, 
probability, matrices and linear programming. To the extent possible, the topics and subject 
matter are organized so as to apply to students in business administration and economics.

31 SLIDE RULE (1 unit)  
One hour lecture.  
Prerequisites: MATH D and C. MATH C may be taken concurrently with permission of 
instructor.  
Reading scales and division; square; square roots; cubes; cube roots; multiplication and 
decimal points; combined operations; L, CF, DF-scales and combination problems; ratio 
and proportion; circle problems; trigonometric functions; solution of right and general 
triangles; powers of numbers using the log scales; logarithms of numbers to any base and 
roots of numbers; reciprocals and exponential expressions solved with the log scales.

50 MODERN COLLEGE ARITHMETIC AND PRE-ALGEBRA (3 units)  
Three hours per week.  
Prerequisite: Counselor's recommendation and a qualifying test score.  
A general review of basic arithmetic including the fundamental operations of addition, 
multiplication, subtraction and division of whole numbers, decimals and fractions. Basic 
understanding and application of percent to be taught with emphasis placed on this 
concept as a simple equation. Fundamental ideas of signed numbers, ratio and 
proportions, simple equations and the basic structure of mathematics to be introduced as 
pre-algebra concepts.

52a ELEMENTARY TECHNICAL MATHEMATICS (3 units)  
Three hours lecture.  
Prerequisite: None.  
Practical introductory mathematics for the agricultural, engineering and laboratory 
technician. Arithmetic fundamentals, slide rule, elementary algebra and mensuration in 
geometry.

52b INTERMEDIATE TECHNICAL MATHEMATICS (3 units)  
Three hours lecture.  
Prerequisite: MATH 52a or A and B.  
Designed for all technical majors other than electrical and electronic majors. Includes 
fundamental algebraic operations, products and factoring, algebraic fractions, operations 
with radicals, quadratic equations, coordinate geometry and systems of equations.

53a BEGINNING MATHEMATICS FOR ELECTRONICS (3 units)  
Three hours lecture.  
Prerequisite: One year of high school algebra or equivalent.  
Basic mathematics for electrical and electronics majors. Includes arithmetic, slide rule, 
Ohm's law, series and parallel circuits, meter circuits.

53b ADVANCED MATHEMATICS FOR ELECTRONICS (3 units)  
Three hours lecture.  
Prerequisite: MATH 53a.  
Includes simultaneous equations, exponents and radicals, logarithms, trigonometry, 
operators, voltage divider and distribution circuits, Kirchoff's laws, alternating currents.
54 INDUSTRIAL MATHEMATICS (3 units)
Three hours lecture.
Prerequisite: None.
An elementary course in mathematics intended primarily for vocational and industrial majors covering arithmetic processes, ratio, proportion and elementary algebra. Included is a brief coverage of personal finance with emphasis on payroll deductions, budgets and installment credit.

60 BASIC ARITHMETIC (3 units)
Three hours per week.
Prerequisite: None.
Designed to meet the needs of the individual student for everyday living and job qualifying tests, as well as preparation for advanced courses in mathematics. The fundamental operations of whole numbers, fractions, decimals and percents are stressed.

77b MATHEMATICS LIFE EXPERIENCE (3 units)
Three hours lecture.
Prerequisite: None.
The teacher aide will better understand that the Math Life Experience curriculum is designed to tempt teenage students into learning more about mathematics, while seeming to teach it less.

200a Elementary Algebra (3 units)
Self-paced, open entry/open exit. For description, see MATH A.

200c Plane Trigonometry (3 units)
Self-paced, open entry/open exit. For description, see MATH C.

200d Intermediate Algebra (4 units)
Self-paced, open entry/open exit. For description, see MATH D.

250 Modern College Arithmetic and Pre-algebra (3 units)
Self paced open entry/open exit. For description, see MATH 50.

260 Basic Arithmetic (3 units)
Self-paced, open entry/open exit. For description, see MATH 60.

Medical Science
See Health Careers

Mental Health Nursing
See Health Careers

Metal
See Industrial Education

METEOROLOGY
(METRO)

3 INTRODUCTION TO METEOROLOGY (3 units)
Three hours lecture.
Prerequisite: None.
An introductory course in the physical processes of weather phenomena. Designed to give the student the basic concepts of meteorology, their application to topics of current interest and an analysis of the measurable factors in weather and climate. Basic knowledge for agriculturists, engineers, pilots, elementary and general science teachers. Foundation for further study in meteorology.

MUSIC

1a–1b ELEMENTARY THEORY (4–4 units)
Three hours lecture and two hours laboratory.
Prerequisites: Departmental examination (to be administered first day of class) and concurrent enrollment in MUSIC 15.
Musical literature is used to develop writing, keyboard and analytical skills. The Department orients the student in the field of his emphasis, be it instrumental, vocal, keyboard or a combination of these.
2 LITERATURE AND MATERIALS (3 units)

Three hours per week.
Prerequisite: MUSIC 50. Not open to students enrolled in MUSIC 1a—1b.
Designed to prepare the student for more advanced work in musicianship. Score reading and rudimentary analysis will enhance the students’ skill in sightreading and broaden his background in the language of music.

3a—3b INTERMEDIATE THEORY (3—3 units) F S

Three hours per week.
Prerequisites: MUSIC 1a—1b and concurrent enrollment in MUSIC 3a—3b.
The student will continue to learn a contrapuntal-harmonic approach to the writing of music for two, three, and four voices. Also learn analytical skills and performance practices of the various periods of music.

3d—3d KEYBOARD HARMONY (1—1 units) F S

Two hours laboratory.
Prerequisite: Concurrent enrollment in MUSIC 3a—3b.
Designed to support the music theory program and is to be taken concurrently. This course will be a requirement for the music major as its content will give a keyboard amplification of the materials covered in MUSIC 3a—3b.

4a—4b ADVANCED THEORY (3—3 units) F S

Three hours lecture.
Prerequisite: MUSIC 3b.
A course in harmony which coordinates three and four voice writing of music with a better understanding of diatonic and chromatic styles applied to a variety of forms and performing media.

5a—5b—5c—5d CLASS PIANO (1—1—1—1 unit) F S SS

Two hours per week.
Prerequisite: For 5a, none.
Open to students beginning the study of piano; recommended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano.

6a—6b—6c—6d CLASS VOICE (1—1—1—1 unit) F S

Two hours per week.
Prerequisite: None. A basic understanding of music fundamentals, although not required, would be highly desirable.
Elementary solo vocal training. Emphasizes breath control, placement of tone, posture and other basic concepts. 6b—6c—6d emphasizes repertoire and further technical development.

7 INTERMEDIATE WOODWIND METHODS (1 unit. Limit 4 units.)

Two hours per week lecture/demonstration/class practice.
Prerequisite: Evaluation by the instructor.
The student will receive performance instruction on the basic woodwind instrument of his choice. Knowledge of basic playing techniques, fingerings, and emphasis on individual performance.

8a INTERMEDIATE BRASS METHOD (1 unit)

Two hours lecture/laboratory.
Prerequisite: Evaluation by the instructor or intermediate playing ability.
The student will understand the practical aspects of brass pedagogy, individual aspects of brass performance and will develop intermediate to advanced skills in brass performance.

9a CLASS GUITAR (1 unit)

Two hours per week.
Prerequisite: None.
Designed to teach the student how to play the guitar. The student will learn correct right and left hand technique, how to read guitar music, basic chords, finger-picking and strumming. A suitable acoustic guitar required.

9b INTERMEDIATE CLASS GUITAR (1 unit)

Two hours laboratory.
Prerequisite: MUSIC 9a or equivalent. Student must have own acoustic guitar.
Designed to teach intermediate techniques of guitar playing. The student will learn advanced chord positions, scales, arpeggios, slurs, and bar chords.

10 COLLEGE BAND (1—2 per semester. Limit of 8 units) F S

Two to four hours per week.
Prerequisite: Open to students playing band instruments.
Performance of concert and football music. Satisfies the performance requirement for music (wind and percussion) majors.

11 STRING ENSEMBLE (1—1—1—1 unit) F S

Two hours per week.
Prerequisite: Permission of instructor.
Performance of string literature. Designed to aid in developing techniques and musicianship of the individual performer.
Five hours per week.
Prerequisite: Permission of instructor.
Performances of standard symphonic works. Open to students playing orchestral instruments. Satisfies the performance requirement for music (string) majors. MUSIC 12a (1-1) and 12b (1-1) requires three hours per week. All string players are required to take 12ab; all other players should enroll in 12a only (1-1).

13a SMALL INSTRUMENTAL ENSEMBLE (1-1-1-1 unit)  
Two hours per week.
Prerequisite: Permission of instructor.
Performance of small chamber instrumental ensemble literature. Stresses development of individual musicianship through small ensemble performance (Brass Choir, Percussion Ensemble or Woodwind Choir.)

13b JAZZ ENSEMBLE (1-1-1-1 unit)  
Three hours per week.
Prerequisite: Permission of instructor.
Performance of modern dance band arrangements; emphasis on jazz techniques and interpretations.

14 COLLEGE CHOIR (1-2 per semester. Limit of 8 units)  
Three to four hours per week.
Prerequisite: Interview by director of choir. Previous choral experience is desired. A wide variety of choral literature is performed and a choral masterwork presented yearly.

15 EAR TRAINING (1 unit. Limit 2 units)  
Two hours laboratory per week.
Prerequisite: None.
Designed to develop aural proficiency and facility at dictation, chord and interval recognition, and rhythm.

17 CHAMBER SINGERS (1-1-1-1 unit)  
Three hours per week.
Prerequisite: Audition by choir director each semester.
Highly select vocal performance organization. Chamber-type ensemble music — madrigals, motets, cantatas – studied during year.

19mb MARCHING AND ACTIVITIES BAND (0.5-1.0 unit. Limit 3 units.)  
Two to five hours per week.
Prerequisite: Audition or evaluation by instructor.
The Marching Band participates in home-game pageantry half-time shows and local parades. The Activity Band performs at most away football games, all home basketball games and other specially designated events. Emphasizes the development of showmanship, the performance of popular music and bandsman esprit. May be repeated for credit. Open to students playing band instruments.

20 APPLIED MUSIC (1 unit. Limit 4 units)  
Two hours per week.
Prerequisite: Permission of instructor.
Private instruction in the performance of orchestral instruments, voice and piano. Repertoire and study must follow departmental requirements. Two performance examinations are administered per semester and are reviewed by the music faculty. 20p Piano, 20wp Wind and Percussion Instruments, 20v Voice, 20s Strings.

21a–21b SURVEY OF MUSICAL LITERATURE (3–3 units)  
Three hours lecture.
Prerequisite: Some knowledge of music and its terminology.
A survey of styles, practices and aesthetics, which traces the lines of musical development from the Greco-Early Christian era to the present. Uses the musical score as a primary source for study. For liberal arts and music majors.

22 MUSIC APPRECIATION (3 units)  
Three hours per week.
Prerequisite: None.
An introduction to music as the listener’s art. Concerts, records and film provide illustrations for directed listening as a basis of appreciation.
23 APPRECIATION OF JAZZ (3 units)

Three hours per week.
Prerequisite: None.
Introductory course in the history and appreciation of jazz. Lectures, listening, laboratories and concert attendance are required.

24 INTRODUCTION TO CONDUCTING (2 units)

Two hours per week.
Prerequisites: The ability to read music and permission of instructor.
Instruction in the art of conducting, the philosophy of the conductor, score reading, instrumental and choral conducting techniques.

25 OPERA THEATER (1–2 units. Limit 6 units)

Four to six hours laboratory.
Prerequisite: None.
Explores the operatic literature in a performance situation. Involves preparation and performance of operatic ensembles and scenes, and includes one staged production per year.

26a JAZZ THEORY (1.5 units)

Two hours lecture, one hour laboratory.
Prerequisite: MUSIC 1a, or equivalent, approved professional experience or permission of instructor.
The student will understand the principles of jazz theory related to contemporary jazz practice and develop proficiency in jazz score analysis.

26b JAZZ ARRANGING (1.5 units)

Two hours lecture, one hour laboratory.
Prerequisite: MUSIC 1a, or equivalent, approved professional experience or permission of instructor.
The student will understand jazz instrument pedagogy and will develop skills in arranging both published and original material for selected jazz ensembles of varied size and instrumentation.

28 SONGWRITING (3 units)

Three hours lecture.
Prerequisite: Ability to read music or play an instrument.
Designed for those who are interested in learning how to write and market commercial songs. The course covers lyrics, melody, harmony, song layout, getting a song performed and how to sell a song.

34 MEXICAN AND CHICANO MUSIC (3 units)

Three hours lecture and discussion.
Prerequisite: None.
An historical survey of Mexican music from Pre-Columbian Culture to the present. Analysis of diverse styles of music in Mexico and in the Chicano Community. Emphasis on the music of Mexico, composition of leading Mexican composers, aspects of indigenous and Mexican/Chicano folk music. Course may be offered either as a regular class or through Coordinated Instructional Systems, using broadcast media, with seminars and examinations by arrangement. Not open to students with credit in CH ST 34.

40 MUSIC OF MINORITY CULTURES (2 units)

Two hours per week.
Prerequisite: None.
An exploration of the origins, development and current trends of ethnic music in the United States: primarily Black, Mexican-American and American Indian.

50 MUSIC READING (4 units)

Three hours lecture and two hours laboratory.
Prerequisite: None.
Development of basic skills necessary for more advanced work in music. Fundamentals of music theory, musicianship, ear training, sight singing and facility in reading and writing music are emphasized.

72 MUSIC THEORY WORKSHOP (3 units)

Three hours per week.
Prerequisite: None.
Designed for those with some background in music who need a review of the materials used in musical composition and their application. Designed to appeal to all students, but especially to music teachers and to practicing musicians who need work in theory.

230a–230b–230c MUSIC LABORATORY (1–1–1 units)

Three hours a week laboratory. (Music 230 may be taken for a maximum of six units.)
Prerequisite: None.
The student will learn to read, decipher, and perform the many rhythmic combinations in music through a self-paced programmed system.

Nursery School Nutrition
See Family and Consumer Education
Office Skills
See Business

Ornamental Horticulture
See Agriculture

Parole
See Correctional Administration

Petroleum Technology
See Industrial Education

PHARMACOLOGY
(PHARM) (PHAR)

90 CONTINUING EDUCATION IN PHARMACY (0 units) S

Five hours per week for 3 weeks. May be offered as a weekend workshop.
Prerequisite: Registration as a pharmacist.
Designed primarily to meet the continuing education requirements of the California State Board of Pharmacy for license renewal. The lectures may include any topic that might be taught in an accredited College or School of Pharmacy or any topic deemed helpful in professional practice; may include the following areas: Pharmacology, Biochemistry, Physiology, Pharmaceutical Chemistry, Pharmacy Administration, Pharmacy Jurisprudence, Public Health and Communicable Diseases, Professional Practice Management, Anatomy and Histology. Topics will be submitted to the California State Board of Pharmacy for approval as "either acceptable" or "accredited" in status. Courses may be repeated as often as is appropriate to the student's needs.

PHILOSOPHY
(PHIL)

6a-6b INTRODUCTION TO PHILOSOPHY (3-3 units) F S SS

Three hours lecture.
Prerequisites: Eligibility for ENGL 1a is recommended. PHIL 6a, 7, or 10 are prerequisites for PHIL 6b.
A method, problems, and issues approach to philosophy through the reading of basic text and selected works. Major consideration is given to the satisfaction of the intellectual needs of the individual student and to the development, through understanding of the responsibilities borne by thoughtful men and women.

7 INTRODUCTION TO LOGIC (3 units) F S SS

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a is recommended.
Traditional and some modern logic are considered with an emphasis on their relationships to language, thought and argument. The following material is covered: What is logic? Uses of language and definition and problems with informal fallacies. Deductive logic and the deductive method, not including propositional or class calculus or propositional functions and quantifiers. Inductive logic involving probable inference, causal connections, hypothesis and probability. Designed to fulfill the basic logic requirement at most state colleges and universities.

10 CONTEMPORARY MORAL ISSUES (3 units)

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a is recommended.
A course to help the student clarify his/her moral values through discussion of contemporary moral issues. The issues to be examined include sexual morality, suicide, abortion, mercy killing, and the morality of business and politics.

12 ETHICS OF LIVING AND DYING (3 units) F S SS

Three hours lecture.
Prerequisite: Eligibility for ENGL 1a is recommended.
A philosophical yet practical approach to some of the major medical-ethical problems facing human beings today, such as: what patients should be told, the nature and importance of informed consent, the meaning and criteria for living, dying, and death including caring for the dying and allowing to die, mercy death, and mercy killing. Permeating these problems will be a study of the basis for ethical human relationships with particular emphasis on the relationship of the professional and the well to the sick and the dying.
13 MORAL ISSUES IN MEDICINE (3 units)

Three hours lecture.
Prerequisites: Eligibility for ENGL 1a is recommended, or completion of PHIL 12.
A study of human values and an application of them to specific moral issues which occur in medicine, such as: abortion and infanticide, truth-telling and confidentiality, human experimentation and informed consent, the morality of behavior control (psychosurgery, behavior modification, drug therapy, psychotherapy, etc.), genetic research, control and manipulation, organ donation and transplantation, and the allocation of scarce medical resources.

14 BUSINESS ETHICS (3 units)

Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a recommended.
The student will be able to recognize, evaluate and resolve moral problems in the area of business at the executive and management levels.

30 HUMANITIES THROUGH THE ARTS (3 units)

Three hours lecture.
Prerequisite: None.
A study of human values, problems and meaning through an integrated, philosophical, and yet practical approach to film, drama, literature, music, painting, sculpture, and architecture with an emphasis on active student participation both audially and visually. Not open to students with credit in PHIL 31.

31 HUMANITIES THROUGH THE ARTS - TV (3 units)

Three hours lecture.
Prerequisite: None.
A survey of the human condition as seen through film, drama, music, literature, painting, sculpture, and architecture with an emphasis on history, techniques, meaning and evaluation of individual works of Western art. Not open to students with credit in PHIL 30.

32 WORLD RELIGIONS: EAST (3 units)

Three hours lecture.
Prerequisite: None.
An impartial presentation of the distinctive genius of the major religions of the East: Hinduism, Buddhism, Confucianism and Taoism.

33 WORLD RELIGIONS: WEST (3 units)

Three hours lecture.
Prerequisite: None.
An impartial presentation of the distinctive genius of the major religions of the West: Judaism, Christianity, Islam.

34a–34b YOGA: THEORY AND PRACTICE (3–3 units)

Three hours lecture.
Prerequisite: PHIL 34a prerequisite to 34b.
An exploration of the practice and theory of yoga designed to give the student some insight into the intuitive basis of Eastern religious thought. Tantric and hedy philosophy will be compared to traditional Christian thought. The relevance of these Eastern perspectives to various contemporary social and intellectual problems will also be explored. Students should be willing to commit themselves to regular practice of some of the techniques presented.

35 MEXICAN PHILOSOPHY (3 units)

Three hours per week.
Prerequisite: None.
A study of the background of Mexican philosophic thought as derived from Spanish and Indian sources and refined by Mexican writers. The influences of Spanish and Indian institutions on philosophic writers such as Samuel Ramos, Octavio Paz and Jose Vasconcellos are read and reported upon. Not open to students with credit in CHST 35.

36 INTRODUCTION TO THE HUMANITIES (3 units)

Three hours lecture.
Prerequisite: None.
An introduction to the humanities, considering great works of art through the ages (painting, sculpture, literature, music, architecture, dance) as they relate to the problems of man and also as they relate to the student. A search for similarities and differences in some of man’s more important attempts to say something about who he is, how he lives, and why he lives in such fashion. An examination of how, at widely separated points in time, artists and writers have viewed significant aspects of man and his world.

37 INTRODUCTION TO THE WORLD’S RELIGIONS (3 units)

Three hours lecture.
Prerequisite: None.
This course is a fresh exploration of contemporary religions in practice around the world. Utilizing originally-developed audio-visual materials, the course will present a variety of distinct religious traditions reflecting both the Western World (Catholicism, Orthodox Christianity, Islam, Judaism) and the Eastern World (Hinduism, Buddhism, Chinese Religion). The student will be able to see, practically first-hand, how these religions are practiced.

38 THE LONG SEARCH – TV (THE WORLD’S GREAT RELIGIONS) (3 units)

Three hours lecture.
Prerequisite: None.
This course provides an audio-visual introduction to twelve distinct religious traditions currently in practice around the world. (Formerly PHIL 37L.)
39 THE NEW RELIGIONS (3 units)

Three hours lecture.
Prerequisites: PHIL 32 or 33 recommended.
Acquaints the student with a variety of new religious movements practiced widely in America today. Hare Krishna, Children of God, Zen Buddhism, B‘hai, Divine Light, Transcendental Meditation, among others will be the focus of study. Spokespersons for the particular religion and first-hand experience will highlight the course.

51 PHILOSOPHY FOR EVERYDAY LIVING (3 units) F S

Three hours lecture and discussion.
Prerequisite: None.
A philosophy course relevant to the problems of everyday life. Concentrates on clear thinking and the application of clear thinking to the problems of everyday life, especially moral issues. The thoughts of some great philosophers will be studied to see how they would approach the problems of everyday life.

52 LOGIC IN EVERYDAY LIFE (3 units) F S

Three hours lecture.
Prerequisite: None.
A non-technical approach to the use of reason in everyday life designed to aid the student in improving his own logical reasoning in such activities as reading newspapers and magazines, listening to speeches, dealing with the arguments of customers, employers, employees or clients, and to enable him to see logical fallacies in attempts to propagandize him in any of the many ways prevalent in our society today. Especially designed for the non-transfer, vocational-technical major who wishes to concentrate on applied rather than theoretical logical reasoning.

53ab WORK ETHICS (3 units) F S SS

53a–53b (1.5–1.5) equivalent to 53ab.
Three hours per week.
Prerequisite: None.
A practical overview of the moral responsibilities and rights of workers in business, trades, and public services. Philosophy 53a focuses on the relationship of the worker to the firm. Among the issues to be discussed: conflicts of interest, including those associated with gifts and entertainment; honesty and expense accounts; the extent and limit of worker loyalty to the organization; the disposition of confidential data. Philosophy 53b focuses on the firm’s relationship to the worker. Various moral issues that relate to the following topics will be raised: tests, interviews, promotions, discipline, discharge, wages, work conditions, work satisfaction, privacy. In both courses, an attempt will be made (1) to sort our rights and responsibilities and (2) to establish a basis for proper work conduct.
(Formerly PHIL 53).

PHYSICAL EDUCATION (PH ED)

Activity courses (3 through 9 and 75) and intercollegiate athletic courses (10 through 27) may be repeated for credit.

53L LIMITED ACTIVITY FOR MEN AND WOMEN (1 unit) F S

Two hours per week.
Referral to an activity appropriate to the individual’s physical ability or individualized instruction for restricted students in conjunction with physician’s advice.

4 ACTIVITIES FOR MEN (1 unit) F S

Two hours per week.
4c—combatives, 4ts—team sports.

5 ACTIVITIES FOR WOMEN (1 unit) F S

Two hours per week.
5gt—intermediate gymnastics, 5sdw—self defense for women, 5ts—team sports, 5wsb—softball.

6 COEDUCATIONAL ACTIVITIES (1 unit) F S

Two hours per week.
Prerequisite: None.
6a—archery, 6ac—aqua calisthenics, 6ai—intermediate archery, 6b—bowling, 6bad—badminton, 6bp—back packing, 6bc—body contouring and weight training, 6bcy—bicycling (requires possession of a bicycle and two weekend trips), 6bv—beach volleyball, 6d—diving, 6f—fencing, 6fs—folk and square dance, 6g—golf, 6gi—intermediate golf, 6gt—gymnastics, 6hbr—handball-racquetball, 6ipt—inertube water polo, 6jd—jazz dance, 6k—beginning karate, 6ls—life saving, 6m—body mechanics, 6md—modern dance, 6mdi—intermediate modern dance, 6pf—jogging, 6s—swimming, 6sd—social dance, 6sf—swim and stay fit, 6sk—dry land skiing, 6skc—ski conditioning, 6ski—intermediate dry land skiing, 6sl—slim and trim, 6stl—slim and trim lectures (0.5 unit), 6syn—synchronized swimming, 6t—tennis, 6td—tap dance, 6ti—intermediate tennis, 6trm—trampoline, 6w—volleyball, 6vi—intermediate volleyball, 6wsi—water safety, 6wsk—water skiing.

6fa FITNESS ASSESSMENT (0.5 unit. Credit/No Credit.)
7 ADVANCED ACTIVITIES FOR MEN (1 unit)  
Two hours per week.  
Prerequisite: Completion of a basic course in the activity.  
7b—advanced baseball, 7fb—advanced football, 7gt—advanced gymnastics, 7m—advanced body mechanics, 7tr—advanced track, 7w—advanced wrestling, 7wp—water polo. Some activities require weekend field trips.

8 ADVANCED ACTIVITIES FOR WOMEN (1 unit)  
Two hours per week.  
Prerequisite: Completion of a basic course in the activity.  
8bb—advanced basketball, 8gt—advanced gymnastics.

9 ADVANCED COEDUCATIONAL ACTIVITIES (1 unit)  
Two hours per week.  
Prerequisite: Completion of a basic course in the activity.  
9a—advanced archery, 9bad—advanced badminton, 9f—advanced fencing, 9g—advanced golf, 9md—advanced modern dance, 9s—advanced swimming, 9t—advanced tennis, 9v—advanced volleyball (0.5 unit).

10 INTERCOLLEGIATE FOOTBALL (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

11 INTERCOLLEGIATE BASKETBALL (2 units Fall; 1 unit Spring)  
Intercollegiate competition for men. May be substituted for physical education activity.

12 INTERCOLLEGIATE TRACK AND FIELD (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

13 INTERCOLLEGIATE TENNIS (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

14 INTERCOLLEGIATE BASEBALL (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

15 INTERCOLLEGIATE SWIMMING (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

16 INTERCOLLEGIATE GOLF (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

17 INTERCOLLEGIATE CROSS-COUNTRY (2 units)  
Intercollegiate competition for men. May be substituted for physical education activity.

20 INTERCOLLEGIATE WRESTLING (2 units Fall; 1 unit Spring)  
Intercollegiate competition for men. May be substituted for physical education activity.

21 WOMEN'S INTERCOLLEGIATE SWIMMING (2 units)  
Prerequisite: Intermediate or advanced skill in swimming.  
Intercollegiate swimming competition for women. Specialized training in swimming skills and competitive swimming techniques. May be substituted for physical education activity.

22 WOMEN'S INTERCOLLEGIATE TENNIS (2 units)  
Prerequisite: Intermediate or advanced skill in tennis.  
Intercollegiate tennis for women. May be substituted for physical education activity.
25 WOMEN’S INTERCOLLEGIATE VOLLEYBALL (2 units)
Prerequisite: Demonstrated competency in the fundamental skills of volleyball. Intercollegiate competition for women. May be substituted for physical education activity.

26 INTERCOLLEGIATE TRACK AND FIELD FOR WOMEN (2 units)
Two hours daily spent in conditioning and specialized training for performance in intercollegiate competition in track and field.
Prerequisite: None.
The student performer will partake in an individualized conditioning and specialized training program in order to prepare herself for optimum performance in her chosen track and/or field events.

27 INTERCOLLEGIATE CROSS COUNTRY FOR WOMEN (2 units)
Two hours daily spent in conditioning and work-out programs for competitive performance in intercollegiate cross country.
Prerequisite: None.
The student performer will engage in a conditioning and specific training schedule designed to prepare herself for optimum performance in cross country meets.

28 WOMEN’S INTERCOLLEGIATE BASKETBALL (2 units)
Minimum ten hours participation per week.
Prerequisite: Must meet the eligibility requirements set by the state Community College Athletic Code.
Athletes will be involved in strenuous physical conditioning programs designed to enhance skills and competitive play.

29 WOMEN’S INTERCOLLEGIATE SOFTBALL (2 units)
Minimum ten hours participation per week.
Prerequisite: Must meet the eligibility requirements set by the State Community College Code. Softball experience.
Athletes will be involved in a strenuous physical conditioning program designed to enhance skills and competitive play.

31a STANDARD FIRST AID (1 unit)
Eighteen hours of instruction.
Prerequisite: None.
Students learn to administer first aid in emergency and accident situations. Includes wounds and their care, shock, artificial respiration, C.P.R., injuries, burns, effects of heat and cold and the transportation of the injured. Upon successful completion of the course each student will qualify for an American Red Cross Standard First Aid card.

34a–34b–34c–34d–34e–34f–34g WOMEN’S PROFESSIONAL ACTIVITIES (1–2 units)
One hour lecture/three hours laboratory for nine weeks.
Prerequisite: For majors or minors in Physical Education or majors in Recreation.
34a–Modern Dance (1 unit), 34b–Swimming (1 unit), 34c–Gymnastics (1 unit), 34d–Badminton (1 unit), 34e–Golf (1 unit), 34f–Tennis (1 unit), 34g–Team Sports (2 units for eighteen weeks).

36a–36b–36c–36d–36e–36f–36g MEN’S PROFESSIONAL ACTIVITIES (1–2 units)
One hour lecture/three hours laboratory for nine weeks.
Prerequisite: For majors or minors in Physical Education or majors in Recreation.
36a–Track and Field (1 unit), 36b–Aquatics (1 unit), 36c–Team Sports (2 units for eighteen weeks), 36d–Golf (1 unit), 36e–Tennis (1 unit), 36f–Combatives (1 unit), 36g–Gymnastics (1 unit).

38 BEGINNING YOGA (2 units)
Two hours per week.
Prerequisite: None.
Basic yogic postures, breathing and meditation techniques intended to increase body agility, suppleness and establish a regimen of healthful living. One unit may be applied to the Physical Education graduation requirement.

40 INTRODUCTION TO PHYSICAL EDUCATION (2 units)
Two hours lecture.
Prerequisite: Major or minor in Physical Education or Recreation. Designed for physical education majors and minors and recreation leaders. A survey of the basic principles underlying physical education. The place and contribution of physical education in the education program.

41 RECREATION LEADERSHIP (2 units)
Two hours lecture.
Prerequisite: Major or minor in Physical Education or Recreation. Designed for physical education and recreation majors as well as those wishing to secure training for municipal programs. Organization, types of activities and problems confronting workers in the field of recreation.

42 COMMUNITY RECREATION (2 units)
Two hours lecture.
Prerequisite: None.
Designed for majors or minors in physical education or recreation. May be taken by anyone interested in preparing for summer or part-time recreational supervision work. Designed for understanding of the structure of organized recreation and its further development. Emphasizes recognizing the many forces, resources and interests which are required to provide community recreation coverage.
43 RECREATION FIELD EXPERIENCE (1–2 units. Limit 8 units.)

One hour weekly seminar. Three hours weekly outside assigned field work for 1 unit or six hours assigned field work for 2 units.
Prerequisite: Recreation or physical education major or minor or permission of the instructor.
Field work refers to a period of time spent by a student in the field of recreation or physical education. It is a college sponsored and college controlled phase of laboratory experience for which suggested courses in recreation are offered.

45 THEORY OF FOOTBALL (2 units per semester. Limit 4 units)

Five hours lecture per week.
Prerequisite: Student should be a minor in physical education although the course may be taken as an elective.
Designed to give students a better understanding of the principles of offensive and defensive football and to prepare physical education majors for a coaching technique course.

46 CAMP LEADERSHIP (2 units)

Two hours lecture.
Prerequisite: None.
Techniques of camp counseling and leadership. A study of camping and the role of the counselor; some program content.

48 SPORTS IN OUR SOCIETY (2 units)

Two hours lecture.
Prerequisite: None.
Investigation into sports and athletics and their influence and effect upon our society. Explores all areas of sports: amateurism, professionalism, sports in our educational systems, the Olympic Games, youth sports programs, and spectatorism.

51a–51b OFFiciATING WOMEN'S SPORTS (2–2 units)

One hour lecture and two hours laboratory for twelve weeks.
Prerequisite: None.
Rules and officiating techniques for women's sports. 51a basketball and volleyball; 51b field sports, softball, tennis.

53a TRACK AND FIELD TECHNIQUE (2 units)

Two hours per week.
Prerequisite: None.
Provides a base for teaching and coaching in the area of track and field. Covers philosophy, program promotion, conducting a track and field meet and ways of teaching the various events.

53b METHODS IN TRACK AND FIELD (2 units)

Two hours per week.
Prerequisite: None.
Designed for those interested in teaching track and field to the beginner. Provides an opportunity for class participation in a learn-by-doing setting. Explores philosophies of motivation, workout organization and techniques of meet organization and administration.

70a–70b–70c–70d PRINCIPLES OF OFFICIATING (1.5–1.5–1.5–1.5 units)

Twenty-seven hours per unit.
The following areas are covered: 70a–football, 70b–basketball, 70c–baseball, 70d–wrestling.

70e PRINCIPALS OF UMPIRING SOFTBALL (1.5 units)

Three hours per week for ten weeks.
Prerequisite: None.
The student will be able to satisfactorily officiate a men's or women's softball game by applying the principles of officiating that they have learned by participating in the lectures, tests, clinics and demonstrations.

71b WATER SAFETY INSTRUCTOR'S TRAINING (1 unit)

Twenty-seven hours minimum.
Prerequisite: Current senior life saving card.
Principles and techniques for instructors in water safety and life saving classes. Lecture, demonstration and laboratory techniques applied to the solution of problems presented in the instruction of various water safety and life saving principles and materials.

72a ADVANCED FOOTBALL OFFICIATING TECHNIQUES (1 unit. Limit 3 units)

One hour lecture and one hour seminar for nine weeks.
Prerequisite: Three years of high school officiating.
The student will concentrate on the rules and mechanics of college officiating, discuss rules of officiating and the mechanics of putting the rules into effect. Emphasizes practical application of mechanics.

75 FITNESS FOR LIVING (1 unit)

Two hours per week.
Prerequisite: None.
A basic course in physical fitness with emphasis on cardio-vascular improvement through a wide range of physical activities and games to include jogging, continuous motion exercise, weight training, volleyball, handball, racquetball, swimming and basketball.
AGILITY AND FITNESS PREPARATION FOR WOMEN IN SAFETY EMPLOYMENT (1.5 units)

Three hours per week.
Prerequisite: None.
Designed to develop agility, strength and stamina of students preparing for employment in safety occupations. (Identical to WN ST 78)

PHYSICAL SCIENCE (PHY S)

• 10 COLLEGE PHYSICAL SCIENCE (3 units)

Three hours lecture.
Prerequisite: None.
Designed for all non-science students and education majors to meet the non-laboratory Physical Science general education requirement. A survey of the basic physical phenomena of mechanics, heat, light, sound, electricity, chemistry, geology, meteorology, and astronomy. Emphasis on basic concepts, relationships, principles and application to modern daily life. Topics are developed with a minimum of mathematical presentation. Not open to science majors.

• 11 GENERAL PHYSICAL SCIENCE (4 units)

Three hours lecture, two hours laboratory and one hour quiz-demonstration.
Prerequisite: None.
Designed for all non-science students and education majors. Not open to science majors. A survey of the basic physical phenomena of mechanics, heat, light, sound, electricity, chemistry, geology, meteorology and astronomy. Emphasis on basic principles, relationships, status and applications to modern civilization. Topics are developed with a minimum of mathematical presentation.

• 21 SPECIAL PROJECTS IN PHYSICAL SCIENCE (1 unit. Limit 2 units) F S

Three hours per week.
Prerequisites: Completion of basic course in science, engineering or drafting with a grade of "C" or higher. Individual directed work in a science, engineering or drafting area. Individual research problems using materials, equipment and techniques not available in larger classes. Designed for science majors who plan to teach or for training technical students in the vocation of their choice.

• 22 ENGINEERING AND PHYSICS CALCULATIONS (2 units)

Two hours lecture and one hour laboratory.
Prerequisites: Concurrent enrollment in PHYSC 1a and MATH 6a. The student will learn how to apply mathematical techniques to physical problems; and will set up and solve practical problems requiring calculus methods.

50 THE DETERIORATING PHYSICAL ENVIRONMENT (3 units) F S

Three hours lecture-discussion.
Prerequisite: None.
Designed to meet the A.A. degree Natural Science graduation requirement, and examine our physical needs and environmental limits of air, water, resources, energy, food, pollution, population and life styles. Physical principles will be applied and studied as they relate to the problems, limits and alternative options.

51 EARTH, SEA, AND SKY (2 units)

Two hours lecture.
Prerequisite: None.
Earth, Sea, and Sky is an introductory course in the earth sciences. The telecourse, which includes thirty half hour telelessons, surveys astronomy, meteorology, climatology, oceanography, and geology.

51L EARTH, SEA, AND SKY LABORATORY (1 unit)

Thirty telelessons and sixteen hours laboratory/testing.
Prerequisite: Concurrent enrollment in PHY S 51.
Exercises designed to accompany the telecourses of Physical Science 51. Experiences dealing with concepts in astronomy, meteorology, climatology and geology.

55 TOPICS IN SCIENCE (3 units)

Three hours lecture-discussion.
Prerequisite: None.
An introductory physical science course designed for non-science majors. Lectures and demonstrations will cover current items of interest to students in several areas of physical science. Topics will be limited to six (6) three week modules and may deal with such subjects as energy, environment, earthquakes, astronomy, metrics or a science area of special interest to the students. Students may enroll for all six topics and three units of credit OR any of the modules offered for one-half unit of credit each.

PHYSICS (PHYSC)

• 1a MECHANICS (4 units) F

Three hours lecture and three hours laboratory.
Prerequisite: Concurrent registration in MATH 6a. Concurrent enrollment in PHY S 22 recommended.
The first in a four semester sequence of courses designed primarily for engineering, physics and other majors requiring a thorough physics background. Includes vectors, statics, dynamics, kinematics, and the properties of materials. Required of all engineering, physics, and other science majors needing calculus based physics.
1b WAVE MOTION AND HEAT (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: PHYS 1a, MATH 6a and concurrent registration in MATH 6b.  
Includes traveling and stationary waves, sound waves, temperature, thermodynamics, the  
nature and propagation of light, reflection, refraction, polarization, diffraction and optical  

1c ELECTRICITY AND MAGNETISM (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: PHYS 1a, MATH 6b and concurrent registration in MATH 6c (waiver of  
concurrent registration in 6c may be given by instructor in special cases).  
The fundamental concepts and phenomena of electricity and magnetism including electric  
charge, electric field, electric potential, capacitance, direct current circuits, magnetic  
field, electromagnetic induction, magnetic properties of matter, electromagnetic  
oscillations and electromagnetic waves.

1d MODERN PHYSICS (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisite: PHYS 1c.  
Includes study of special relativity, quantum theory and atomic and nuclear physics.

2a–2b GENERAL PHYSICS (4–4 units)  
Three hours lecture, three hours laboratory and one hour problem discussion.  
Prerequisites: High school physics or chemistry, MATH B, MATH D (may be taken  
concurrently).  
Lectures, demonstrations and problems dealing with properties of matter, mechanics,  
heat, sound, light, electricity, magnetism and modern physics. Required for most science  
and preprofessional majors.

11a–11b COLLEGE PHYSICS (4–4 units)  
Three hours lecture and three hours laboratory.  
Prerequisites: Math A or equivalent with grades of "C" or better and Math 53a–53b (may  
be taken concurrently). High school physics and/or trigonometry are desirable, but not  
 essential. Math B and C or higher may be substituted for above Math 53a–53b.  
Mechanics, heat, electricity, magnetism, sound, light, optics, electronics and atomic  
energy, with emphasis on applications in industry. A rigorous practical, non-calculus  
course in basic applied physics. Required of all technical majors. Not open to students  
with credit in PHYS 2a–2b.

50 CONCEPTS IN PHYSICS (3 units)  
Three hours per week.  
Prerequisite: One year of high school algebra or equivalent and a qualifying score on a  
college aptitude test.  
For non-science majors only. A survey of the basic laws of physics and their application  
to modern life. (Formerly PHYS 10.)

PHYSIOLOGY  
(PHYSL)

1 INTRODUCTORY PHYSIOLOGY (5 units)  
Three hours lecture and six hours laboratory.  
Prerequisite: Any of one of the following courses: CHEM 1a, 2a, 11, ANAT 1, BIOL 1a,  
11.  
The physiology of bone, muscle, nerve, circulation, respiration, digestion, excretion,  
endocrines and reproduction. Introductory course in human physiology with special  
emphasis on the needs of students majoring in biology, nursing, physical education and  
medical sciences.

11 HUMAN PHYSIOLOGY (4 units)  
Three hours lecture and three hours laboratory.  
Prerequisite: ANAT 11 or equivalent.  
Deals with the functions of human organ systems. Laboratory investigation and lecture  
demonstrations will give emphasis to both chordate animal systems and human body  
functions. Special emphasis for physical education majors.

Police Science  
See Administration of Justice
POLITICAL SCIENCE
(POLS)

1 AMERICAN GOVERNMENT (3 units)  F  S  SS

Three hours lecture.
Prerequisite: None.
An introduction to American government, with particular emphasis on the national government. A comprehensive analysis of governmental structure, functions, principles and problems. This course in combination with History 17b satisfies code requirements in the U.S. Constitution, American history, and institutions, and California state and local government.

2 COMPARATIVE GOVERNMENT (3 units)  F  S

Three hours lecture.
Prerequisite: None.
An introduction to comparative government, involving the analysis of constitutional principles, governmental institutions and political systems of selected governments abroad. Offered as an elective in the Social Science field.

3 INTERNATIONAL POLITICS (3 units)  S

Three hours lecture.
Prerequisites: HIST 17a–17b or HIST 8a–8b or POL S 1.
Surveys the dynamics and ideologies of present-day international politics and rivalries. Historical depth is attained by surveying the development of the national state system and the evolution of the techniques and arts of diplomacy.

4 UNITED STATES FOREIGN POLICY (3 units)  F  S

Three hours lecture per week.
Prerequisite: None. HIST 17a or 17b or POL S 1 is recommended.
An introductory course surveying the ideological, structural and historical underpinnings of United States foreign policy. Increased political sophistication is attained through an in-depth analysis of postwar foreign policy direction and content, and its ramifications for United States domestic politics.

5 CURRENT ISSUES IN AMERICAN GOVERNMENT
(1–3 units per semester. Limit 6 units)

One to three hours lecture per week. Seventeen lecture hours per unit.
Prerequisite: None.
A study of current political issues of major significance, such as Presidential elections, impeachment or Constitutional revision. Offered only when an issue of exceptional importance appears on the American scene.

22 MEN AND WOMEN AND THE LAW (3 units)
(See WOMEN'S STUDIES 22)

42 PRINCIPLES OF LEADERSHIP (2 units)

Two hours per week.
Designed to train students to assume student body leadership and responsibility in school affairs. Specific instruction is given in the principles and administration of parliamentary law; the co-curricular activity program; finances, including budgetary procedures; and group dynamics. One hour each week is devoted to a student body business meeting and one hour to instruction. Student officers serving their first term are required by Associated Student Body by-laws to take the course.

45 CALIFORNIA LOCAL GOVERNMENT (3 units)

Three hours lecture.
Prerequisite: None.
A survey of county, city and special district organization and operations, including a description of administration, identification of sources of fiscal support, inventory of services and procedures for regulation and modification.

Pre-school Teaching
See Family and Consumer Education

Probation
See Correctional Administration
PSYCHOLOGY  
(PSYCH)

● 1a GENERAL PSYCHOLOGY (3 units)  
Three hours lecture.
Prerequisite: A qualifying score on a college aptitude test or a grade of “C” or higher in PSYCH 51.
An introduction to the scientific study of behavior. Deals with perceptions, thinking, motivation, emotion, intelligence, and learning; designed to contribute significantly to the general education of all students as well as to provide a basis for further study in the field of psychology. Major emphasis is placed upon general psychological principles.

● 1b PHYSIOLOGICAL PSYCHOLOGY (3 units)  
Three hours lecture.
Prerequisite: PSYCH 1a.
A study of the physiological basis of behavior. Structure and function of the nervous system, specialized sense organs and responding structures. Study of methods of investigation, particularly experimental. For psychology majors and others planning for upper division work in psychology.

● 5 ELEMENTARY STATISTICS FOR THE BEHAVIORAL SCIENCES (3 units)  
Three hours lecture.
Prerequisite: Two years of high school algebra or equivalent.
A study of statistics as applied to the behavioral sciences. Emphasis upon the organization of data, measures of central tendency and variability, the normal curve and probability, sampling theory, correlation and regression, hypothesis testing, simple analysis of variance, use of statistics in tests and measurements, and use of statistics in planning experiments.

● 10 GENERAL PSYCHOLOGY FOR THE HEALTH SCIENCES (3 units)  
Three hours lecture.
Prerequisite: Concurrent enrollment in a health science program.
An introduction to the scientific study of behavior. Deals with principles of development, perception, thinking, motivation, emotion, intelligence, learning and personal adjustment. Major emphasis is placed on general psychological principles and their relationship to the health sciences.

● 18 GENERAL PSYCHOLOGY FOR POLICE OFFICERS (3 units)  
Three hours lecture.
Prerequisite: Current enrollment in an administration of justice program or employment as a law enforcement officer.
Survey course of general psychology emphasizing aspects relevant to the professional law enforcement officer. Typical psychological topics are illustrated by examples from the field and applications of psychological techniques to the officer’s work are shown. Not open to students with credit in PSYCH 1a.

● 20 SOCIAL PSYCHOLOGY (3 units)  
Three hours lecture.
Prerequisite: SOC 1 or PSYCH 1a.
Introduction of the individual into group life, the organization and perspectives of personality, the social control of conduct. Special attention to the social basis of personality development, socialization, communication processes, deviance, and social control. Not open to students with credit in SOC 20.

● 21a–21b–21c–21d SPECIAL PROJECTS  
(1–1–1–1 unit. Limit of 4 units.)  
Three hours laboratory weekly by arrangement.
Prerequisite: Completion of the course in which he will be assisting with a grade of “B” or better.
Psychological Assistant and tutor. Assistants work primarily in a tutorial relationship with other students in a course which they previously completed at a high level of mastery. Designed for prospective psychology majors to give them pre-professional experience in teaching psychology. Assistants will be utilized in courses utilizing behavior modification techniques requiring low assistant/student ratios for effective instruction.

● 22 TECHNIQUES OF TUTORING THE EDUCATIONALLY HANDICAPPED  
(3 units)  
Three hours lecture and one hour laboratory.
Prerequisite: Permission of instructor.
A practical course in the mechanics of tutoring the educationally handicapped and an overview of symptoms. Will stress competence in the use of audio-visual and specific equipment as well as materials used to help the educationally handicapped student. Will give students an understanding of the personal relationships that must be established between tutor and tutee.

● 28 PSYCHOLOGY OF ETHNIC IDENTITY (3 units)  
Three hours lecture.
Prerequisite: None.
Theoretical approach to the study of the psychological, cultural and biological factors relating to ethnic differences in contemporary society. Investigation of racial and social class differences in economic opportunity, social mobility, attitude formation and attitude changes. Also includes an examination of the sources of prejudice, intergroup relations and the minority reaction to dominance.

● 30 HUMAN SEXUALITY (3 units)  
Three hours lecture.
Prerequisite: None.
The student will obtain a basic knowledge of the human sexual system, the sexual act, today’s sexual attitudes and behavior, sexual diseases and disorders, reproduction and birth control, sexual variance, sexual inadequacies and their treatment, and the legal and ethical aspects of sexuality.
31 MARRIAGE (3 units)

Two hours lecture and one hour lecture-discussion.
Prerequisite: None.
A functional approach to the problems of marriage; the nature and purpose of family life; special emphasis on the problems of modern courtship, mate selection and the adjustment problems associated with the early years of marriage. Not open to students with credit in FAM S 31.

32 MARRIAGE AND FAMILY RELATIONSHIPS (3 units)

Three hours lecture.
Prerequisite: None.
Intended primarily for those who are or have been married. Preliminary consideration is given to the factors involved in wise mate selection, but the major focus is on the exposition of the common difficulties associated with marriage and family life. Techniques for resolving such difficulties are explored.

33 PERSONAL AND SOCIAL ADJUSTMENT (3 units)

Three hours lecture.
Prerequisite: PSYCH 1a or a grade of "B" in PSYCH 51.
Dynamics of normal and abnormal personality development. The study of frustration threat and conflict, and the reactions to stress through defense mechanisms and coping behavior. Consideration is given to the basic methods of psychotherapy and behavior therapy.

34 THE UNMARRIED ADULT: DIVORCED, WIDOWED AND SINGLE BY CHOICE (3 units)

Three hours lecture.
Prerequisite: None.
The student will develop an understanding of the unmarried adult's life based on a balance of resources, communication patterns, and problem solving skills in adjustment as they relate to everyday life. The student will better understand his/her own goals, values, and motives as they relate to relationships. Not open to students with credit in WN ST 34.

35 INTRODUCTION TO PARAPSYCHOLOGY (3 units)

Three hours lecture/discussion/experimentation.
Prerequisite: None. PSYCH 1a is recommended.
The student will critically examine the basic principles of extra-sensory perception and parapsychological phenomena including telepathy, clairvoyance, precognition, retrocognition, and psychokinesis. Emphasis will be on historical development, laboratory investigations, and theoretical explanations of the nature of parapsychic phenomena.

36 TOPICS IN BILINGUAL EDUCATION (1-1-1 unit)

Three hours per week lecture and discussion for six weeks.
Prerequisite: None.
Develops history and cultural awareness for teachers and aides of the contributions to our society by people of Mexican-American/Chicano heritage in both Mexico and the United States. Provides an opportunity to examine current and traditional children's stories, fables, legends and fairy tales. Introduces teachers and aides to the method of teaching reading in Spanish with sound-symbol relationship. Not open to students with credit in CH ST 38a-38b-38c.

39a BEGINNING ASSERTIVENESS TRAINING FOR WOMEN (1.5 units)

Three hours lecture for nine weeks.
Prerequisite: None.
The student will understand and apply effective assertiveness skills. The student will demonstrate a familiarity with basic theories and techniques related to assertiveness training. Not open to students with credit in WN ST 39a.

39b ADVANCED ASSERTIVENESS TRAINING FOR WOMEN (1.5 units)

Three hours lecture for nine weeks.
Prerequisite: WN ST 39a or PSYCH 39a.
The student will understand and apply effective assertiveness skills. The student will demonstrate a familiarity with advanced theories and techniques related to assertiveness training. Not open to students with credit in WN ST 39b.

40 CHILD PSYCHOLOGY AND DEVELOPMENT (3 units)

Three hours lecture.
Prerequisite: PSYCH 1a.
The study of the growth and development of children. Emphasizes intellectual and personality development as well as the handling of behavior problems through guidance and discipline.

41 ADOLESCENT PSYCHOLOGY (3 units)

Three hours lecture.
Prerequisite: PSYCH 1a.
The physical, intellectual, emotional and social development during adolescence.

42 PSYCHOLOGY OF EXCEPTIONAL CHILDREN (3 units)

Three hours lecture/discussion.
Prerequisite: PSYCH 1a or 51.
A survey of the etiology of the exceptional child, including social, legal and educational implications. Designed to acquaint the student with the life-style of the handicapped in our society. Major emphasis is on mental retardation with some attention to other handicapping conditions.
• 44 DEVELOPING INTERPERSONAL SKILLS (3 units)

Three hours per week.
Prerequisite: None.
Introduction to principles of human interaction in numerous and changing environments through small group discussion. Not open to students with credit in CH ST 44 or WN ST 44.

• 45 BEHAVIOR MODIFICATION (3 units)  
F S

Three hours lecture.
Prerequisite: PSYCH 1a.
Introduction to the basic principles of learning theory and their application to behavioral change.

51 PSYCHOLOGY FOR LIFE (3 units)  
F S SS

Three hours per week.
Prerequisite: None.
A non-theoretical approach to the study of human behavior, designed to aid the student to improve his adaptation to the problems of college, vocation, family and society.

52 CHILD PSYCHOLOGY FOR TEACHER AIDES (3 units)  
F S SS

Three hours per week.
Prerequisite: None.
The study of growth and development. Emphasis is given to the handling of behavior problems through guidance and discipline and to the special problems of dealing with disadvantaged children in the classroom.

53a CHILD PSYCHOLOGY AND DEVELOPMENT (3 units)  
F S SS

Three hours lecture.
Prerequisite: None.
The study of growth and development of children from infancy to adolescence. Emphasizes the stages of development, problems of growing up and the handling of behavior problems through understanding, discipline and guidance.

53b ADOLESCENT PSYCHOLOGY AND DEVELOPMENT (3 units)  
F S SS

Three hours lecture.
Prerequisite: None.
A study of the growing person who is making the transition from childhood to adulthood. Emphasizes learning to guide the adolescent through better understanding him.

55 TEACHER AIDE TRAINING (2 units)  
F S

Two hours lecture.
Prerequisite: None.
Opportunity to explore the various duties of the teacher aide. Study of the factors influencing learning. Emphasizes the role of the aide in assisting the professional educator.

71 TEACHING MINORITY STUDENTS (3 units)

Three hours per week.
Prerequisite: Designed for teachers and counselors or for those preparing for a career in teaching or counseling.
A study of the problems which minority students encounter in their school experience and exploration of possible ways the teacher and counselor can help them succeed in school.

72 CURRENT INNOVATIONS IN TEACHING (3 units)  
F S

Three hours lecture.
Prerequisite: Designed for teachers or those preparing for teaching.
A film and lecture series on innovation, drawing from many different academic disciplines. Programs are selected so as to encourage applications to other fields. When appropriate, on-campus or community experts will be used to discuss the filmed presentations. In some cases these resource people will present an entire program. Hard and software demonstrations will be integrated into the presentation whenever possible. Although primarily conceived as a series, instructional staff will be permitted to drop-in on particular programs of interest.

74 TOPICS ON APPLIED PSYCHOLOGY (0.5–1 unit. Limit of 8 units)  
F S SS

Eight hours per one-half unit.
Prerequisite: Permission of instructor.
Selected topics in applied psychology, emphasizing development and use of specific methods, designed to cope with particular problems usually in an institutional or group setting.

TEACHER AIDE PROGRAM (TCH A)

70 CURRENT PRACTICES (0.5–2 units)

Eight hours minimum per 0.5 unit.
Prerequisite: None.
Provides information and study related to current practices, student needs and recent developments within the field.

77b MATHEMATICS LIFE EXPERIENCE (3 units)

Three hours lecture.
Prerequisite: None.
The teacher aide will better understand that the Math Life Experience curriculum is designed to tempt teenage students into learning more about mathematics, while seeming to teach it less. Not open to students with credit in MATH 77b.
TEACHING THE LAUBACH LITERACY PROGRAM (3 units) F S

Three hours lecture.
Prerequisite: None.
Covers problems of learning the English language with emphasis on the sound system of English. Presents the Laubach Literacy method and materials, supplementary vocabulary lists and drills, teaching aids, and materials for review and reinforcement. Develops skills in writing high-interest literacy instruction. Introduces language problems of the exceptional student and the Laubach method of basic language skills instruction. Not open to students with credit in RDNG 77c.

ADVANCED LAUBACH LITERACY PROGRAM (3 units)

Three hours lecture.
Prerequisite: TCH A 77c.
A continuation of TCH A 77c, advanced study of the Laubach Literacy Program.

CAREER TRAINING SKILLS (3 units)

Three hours lecture.
Prerequisite: None.
Career Training Skills is a one semester, basic vocational course designed to acquaint teacher aides with the fundamental operations of career training. The primary purpose is to help teacher aides understand the role they play in career education.

PUBLIC SAFETY (P SAF)

SAFETY MANAGEMENT AND LOSS CONTROL (3 units)

Three hours lecture.
Prerequisite: None.
Students will learn the principles of Safety Management and Loss Control in various forms of industry, the rules and regulations of CAL OSHA (California Occupational Safety & Health Administration) and the practices and procedures for implementing safety programs.

OIL PRODUCTION SAFETY (1 unit)

Two hours lecture for nine weeks.
Prerequisite: None.
Students will learn the principles of Oil Production Safety, the rules and regulations of CAL/OSHA (California Occupational Safety and Health Administration) as they pertain to Oil Production Safety and the procedures for implementing an oil production safety program.

PUBLIC SERVICE (PUBS)

COMMUNITY CONCERNS SEMINAR (1 unit)

Eighteen hours lecture.
Prerequisite: None.
A forum type lecture series designed to acquaint the student with information about a problem of topical interest to the community.

Radio and Television
See Communications

Radiologic Technology
See Health Careers

Real Estate
See Business

Recreation
See Physical Education

Secretarial Training
See Business
SENIOR STUDIES (SEN S)

90 TOPICS IN SENIOR ACTIVITY (0 units)  F S SS

One to six hours lecture, demonstration or activity.
Prerequisite: None. Recommended for senior citizens and for other adults interested in senior citizen's programs.
Topics may include travelogue-lectures, literature, arts and crafts, political concerns, psychology, horticulture and other areas of activity. Regular or emergent curriculum adapted or designed to meet the needs, interests and capabilities of senior citizens who seek instruction without college credit, examination or grades.

SOCIAL SCIENCE (SOC S)

• 1 SCIENCE, TECHNOLOGY AND HUMAN VALUES - MEN AND MACHINES: FROM KNOW HOW TO NOWHERE (3 units)  F S

Three hours lecture/discussion.
Prerequisite: None.
The student will be able to appreciate and understand the complementary nature of scientific investigation and humanistic values. Emphasizes the social, ethical, political and economic implications of science and technology.

• 10 INTRODUCTION TO FUTURE STUDIES (3 units)  F S

Three hours lecture.
Prerequisite: None.
An introduction to the growing field of future studies, or futurology. Focuses on the problems and challenges in the near future down to approximately the year 2000 and includes a unit on the jobs of the future.

• 12 THE AGE OF UNCERTAINTY: A HISTORY OF ECONOMIC IDEAS AND THEIR CONSEQUENCES (3 units)

Thirteen television programs, eighteen hours of seminars and testing and programmed study guide.
Prerequisite: None. ENGL 1 reading level recommended.
An interdisciplinary study with major elements of economics, philosophy, history, sociology, anthropology, and political science that begins in the agricultural landscape of the 1700’s and brings the student forward into the age of the corporate giant and the nuclear warfare of modern industrial society. Included are 13 television programs hosted by economist John Kenneth Galbraith.

SOCIOLOGY (SOC)

• 1 INTRODUCTION TO SOCIOLOGY (3 units)  F S SS

Three hours lecture.
Prerequisite: None.
The principal concepts and theories of sociology; culture, personality, status, primary and secondary groups, community, social institutions, etc. For the student who desires a greater understanding of the complexities and conflicts of modern industrialized society. Recommended especially for majors in criminology, social welfare, teaching and anyone planning to do advanced work in the social sciences.

• 2 PROBLEMS OF MODERN SOCIETY (3 units)  F S SS

Three hours lecture.
Prerequisite: SOC 1 or permission of instructor.
A study of the social problems of modern society from a sociological point of view. Emphasizes the major social changes taking place and the increasing pace of social change as a major cause of social problems. Attempts to arrive at accurate methods of identification and measurement of social problems and to establish criteria for judging the probable results of proposed changes. Includes studies of unemployment, race and ethnic relations, family disorganization, poverty, etc.

• 3a INTRODUCTION TO SOCIAL SERVICE (3 units)  F

Three hours per week.
Prerequisite: SOC 1 or permission of instructor.
Introduces the student to the fields of social welfare services and to the social work profession. Historical development, analysis of structure, policies and issues; emergence of social work profession; contemporary practices and policies of social welfare agencies. Principles and techniques of social work, such as interviewing, record keeping, report writing and determining eligibility for services. The work of representative social agencies in the community.
3b ADVANCED SOCIAL SERVICE (3 units)
Three hours per week.
Prerequisite: SOC 3a.
Builds on knowledge and skills acquired in previous courses. Continued practice in social work techniques plus analyses of typical case histories. Theories, concepts and values used by social workers serving individuals, families and groups in public assistance, correctional, child welfare, psychiatric family service, medical, youth services and other agencies. Diagnostic and treatment methods used in the helping professions. The welfare subculture will be explored and the interaction between the social worker and other professionals will be evaluated.

5 COMMUNITY SERVICE (1–2 units per sem. Limit 8 units)
One hour seminar and two to five hours field work per week.
Prerequisite: None.
Supervised field work related to seminar instruction. Field work opportunities include tutoring, politics, work with the mentally ill, the aged, delinquents and adult prisoners.

7 JUVENILE DELINQUENCY (3 units)
Three hours lecture.
Prerequisite: SOC 1 or PSYCH 1a or permission of instructor.
A course for students, parents, social workers and teachers pertaining to problems of the maladjusted juvenile, ranging in type from the potential delinquent to the institutionalized offender. Not open to students with credit in COR A 7.

10 TOPICS IN SOCIOLOGY (0.5–2 units)
Three hours per week for three to eleven weeks.
Prerequisite: SOC 1 or 50.
Selected topics in sociology which coincide with current student interests, recent developments within the field, special speakers or events connected with Community Services, Women's Study Center, Chicano Studies Program, Black Studies Program, field excursions related to existing department offerings or any other specifically designated area of study approved by the college and its Curriculum Committee.

20 SOCIAL PSYCHOLOGY (3 units)
Three hours lecture.
Prerequisite: SOC 1 or PSYCH 1a.
The introduction of the individual into group life, the organization and perspectives of personality, the social control of conduct. Special attention to the social basis of personality development, socialization, communication processes, deviance, conformity and social control.

21 RACE AND POVERTY IN AMERICAN LIFE (3 units)
Three hours lecture.
Prerequisite: None.
An examination of race and poverty with special emphasis on the need for improved communication between the representatives of society, such as teachers, social workers and policemen and the poor. The attitudes of professionals in these fields will be examined. Attempts to sensitize students toward seeking solutions to these problems. Although the course is concerned with urban and rural poverty generally, it will also examine local poverty in considerable detail. When appropriate, outside experts will lecture on their specialties.

22 CRIME AND JUSTICE IN AMERICA (3 units)
One hour newspaper lecture and two hours by arrangement.
Prerequisite: None.
Crime persists as a pervasive, ever expanding phenomenon of American life. Through this newspaper series (15 topics) and lecture the student will learn the causes of crime, theories of prevention, and means of control—police, courts and corrections.

23 POPULAR CULTURE—MIRROR OF AMERICAN LIFE (3 units)
One hour newspaper lecture and two hours by arrangement.
Prerequisite: None.
Serious study of popular culture was initiated over 20 years ago. Our modern national image is shaped by mass communication. In this newspaper series, the effects on our culture of television, movies, advertising, sports and popular music are examined by eleven well-known authors.

25 SOCIAL GERONTOLOGY (3 units)
Three hours lecture.
Prerequisite: SOC 1.
An introduction to social gerontology including an overview of current problems, issues, definitions and social concerns of aging and the aged with a view toward understanding how to work with older persons and to accept our own role in society as we age.

27 WOMEN IN AMERICAN SOCIETY (3 units)
Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
Designed to assess the role of the American woman through an analysis of social, political and economic influences. Not open to students with credit in WN ST 27. (Formerly WN ST 20.)
28 WOMEN IN THE WORLD (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A comparative study of women's cultures in the societies of the world. Topics are to include historical, psychological and sociological aspects. Selected regional cultures will be emphasized every semester. Not open to students with credit in Wn ST 28.

30 BLACK SOCIOLOGY (3 units)

Three hours lecture.
Prerequisite: None.
An introductory course covering the socio-economic characteristics of the Black culture. A study of the inter-relationships of Blacks and society as a whole with emphasis on the Black perspective.

36 SOCIOLOGY OF THE CHICANO (3 units)

Three hours lecture-discussion.
Prerequisite: None.
A survey course covering the socioeconomic characteristics of the Chicano community. A study of the inter-relationships of Chicano cultural groups and society as a whole. Not open to students with credit in CH ST 36.

36L FIELD WORK FOR CHICANO SOCIOLOGY (2 units)

Two hours lecture/seminar and four hours fieldwork.
Prerequisite: May be taken concurrently with SOC 36.
Provides students with field work experience in the Chicano community in a variety of settings such as school (tutoring), working with mentally ill, the aged, juvenile hall adult prisoners. Includes weekly seminars on the Chicano. May be repeated for a total of eight units. Not open to students with credit in CH ST 36L.

50 APPLIED SOCIOLOGY (3 units)

Three hours lecture and discussion.
Prerequisite: None.
The study of sociological concepts, the need for greater knowledge of society, the value of conflicts within society, and the consequences of social change. How social change and social problems relate to the life of the individual.

51 GROUP DYNAMIC SKILLS (3 units)

Three hours lecture and discussion.
Prerequisite: SOC 1 or 3a.
The study of communication techniques. Development of skills in counseling, interviewing, oral and written reporting and group discussion. (Formerly CMN S 51.)

52 PRINCIPLES OF COMMUNITY AGENCY ORGANIZATION AND MANAGEMENT (3 units)

Three hours lecture/discussion and participation.
Prerequisite: SOC 1 or 3a.
Plans for constructive development of community groups. The response of the neighborhood to community workers. Role models for community workers. Role application to communities. The dynamics of planned change. (Formerly CMN S 52.)

Soils
See Agriculture

Spanish
See Foreign Languages

Special Education
See Communications

SPECIAL STUDIES (SP ST)

49 SPECIAL STUDIES: Honors (1 unit)

Prerequisite: Nomination by faculty members.
Seminars and/or individual conferences by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field studied, i.e., Special Studies – German.
201 SPECIAL PROJECTS AND STUDIES
(1 unit. Limit 6 units.)

A minimum of eighteen hours per unit.
Prerequisite: Recommendation by department chair.
Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program.

Teacher Aide Specialist Program
See Psychology

THEATRE ARTS
(THEAT)

1a–1b–1c INTRODUCTION TO ACTING (1–1–1 units) F S
Three hours lecture per week for six weeks.
Prerequisite: None.
Designed for non-majors. Emphasizes mastery of self as the key to creative process of communication and performance through improvisation, theatre games, concentration, pantomime, etc. Recommended for those interested in performing arts or in personal development.

2a ELEMENTS OF ACTING (3 units) F S
Three hours lecture.
Prerequisites: THEAT 1a, b, c, Drama major, or audition; concurrent enrollment in 3a.
Provides understanding of self as creator and medium of acting. Develops fundamental knowledge of such elements of acting as pantomime, vocalization, improvisation, relaxation—concentration, sense memory, etc. Not open to students with credit in DRMA 10a.

2b ELEMENTS OF ACTING (3 units) F S
Three hours lecture.
Prerequisites: THEAT 2a or audition; concurrent enrollment in 2b.
The theory and practice of acting, in depth. Enlarges upon techniques learned in 2a, and introduces methods of script analysis, character development, schools of acting, and styles of performance. Not open to students with credit in DRMA 10b.

3a–3b–3c–3d APPLIED ACTING PROBLEMS (2–2–2–2 units) F S
One hour lecture and three hours laboratory.
Prerequisites: For 3a, concurrent enrollment in 2a; for 3b, concurrent enrollment in 2b. 3b is prerequisite to 3c and 3c to 3d.
A study and application of the various theories of acting. The content of this course is an experience of the subject matter being studied in 2a, 2b, or of more advanced problems posed by the second year student actor. Not open to students with credit in DRMA 10c or 10d.

4a INTRODUCTION TO STAGECRAFT (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: None.
a basic introduction to technical theatre. Designed for the student who wants a general knowledge of stagecraft but is not a technical theatre major. Covers basic set construction, scenic paint, scene painting, and stage properties. Not open to students with credit in DRMA 25a.

4b INTRODUCTION TO STAGECRAFT (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: Completion of THEAT 4a—Introduction to Stagecraft.
a specialized course in technical theatre that will concentrate on the areas of 3-D scenery, special effects, lighting, and sound. This course is designed for the technical theatre major or for the student interested in learning more about stagecraft after he has completed THEAT 4a. Not open to students with credit in DRMA 25a.

5a INTRODUCTION TO SCENE DESIGN (1.5 units) S
Three hours lecture per week for nine weeks.
Prerequisite: None.
a basic introduction to scene design. Designed for the student who wants a general knowledge of set design. The course will cover the functions and types of scene design, drafting and painting equipment, elements of design, drafting a floor plan, and constructing a model of a unit designed by the student. Not open to students with credit in DRMA 25b.

5b INTRODUCTION TO SCENE DESIGN (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: Completion of THEAT 5a.
a specialized course in scene design that will concentrate on drafting, painting techniques, perspective drawing, and model making. Designed for the technical theatre major or for the student interested in learning more about scene design after he has completed THEAT 5a. Not open to students with credit in DRMA 25b.
6a INTRODUCTION TO STAGE MAKE-UP (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: None.
A basic introduction to stage make-up. Designed for the student who wants a general knowledge of make-up. The course will cover character analysis, facial anatomy, and old age make-up. Not open to students with credit in DRMA 26a.

6b INTRODUCTION TO STAGE MAKE-UP (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: THEAT 6a.
An advanced course in stage make-up that will concentrate on the area of 3-Dimensional Make-up, rubber prostheses, beards and mustaches, and non-realistic make-up. Designed for the technical theatre major or for the student interested in learning more about the field of stage make-up after he has completed THEAT 6a. Not open to students with credit in DRMA 26a.

7a INTRODUCTION TO STAGE COSTUME (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: None.
A basic introduction to stage costume. Designed for the student who wants a general knowledge of costume. The course will include basic sewing techniques, pattern information, types of fabric, Gothic and Renaissance costume history and how to make a costume plot. Not open to students with credit in DRMA 26b.

7b INTRODUCTION TO STAGE COSTUME (1.5 units)
Three hours lecture per week for nine weeks.
Prerequisite: Completion of THEAT 7a.
An advanced course in stage costume that will concentrate on the areas of pattern drafting, basic costume history, and design. The course will also provide a practical approach to costume through the construction of costume pieces—costume renderings and participation on a wardrobe crew. Designed for the technical theatre major or for the student interested in learning more about stage costume after he has completed THEAT 7a. Not open to students with credit in DRMA 26b.

8 MUSICAL THEATRE (3 units)
Three hours lecture.
Prerequisite: None.
A study of musical theatre. Lecture and discussion of music, dramatic styles and structure of selected musical comedies. Emphasis on problems of actual performance, culminating in a project or concert style performance by members of the class.

12 CREATIVE DRAMATICS (1–1–1 unit)
Sixteen—Eighteen hours lecture per unit. Limit of three units.
Prerequisite: None.
An investigation into the literature and techniques of creative drama and allied crafts as tools for communication and problem solving. The course will include, in varying emphasis, theatre games, pantomime, improvisation, storytelling, role-playing, puppetry, creative crafts, and methods and concepts of creative dramatics as appropriate to the students in each section. Not open to students with 3 units of credit in DRMA 12.

21 THEATRE ORIENTATION: PROBLEMS IN PRODUCTION (1 unit)
One hour lecture per week for eighteen weeks. Limit four units.
Prerequisite: None.
A course designed to acquaint the student with all the aspects of a theatre production. Includes the principles and purposes of theatre as an art, the contributions of all artists and craftsmen toward creating this performed art in today’s theatre.

23ab MUSICAL THEATRE (2 units)

23a–23b (1–1 unit) equivalent to 23ab.
Two hours lecture. Nine weeks per unit.
Prerequisite: None.
A study of musical comedy and musical theatre representative of the 20th Century. Lecture and discussion of musical and dramatic styles and structure of selected musical shows. Additional emphasis on staging and problems of actual performance. Culminates in a project or concert style performance by members of the class. Not open to students with credit in DRMA 23ab.

27 THEATRE LABORATORY (1–3 units)
Sixty to one hundred eighty hours. May be repeated four times with a limit of 8 units of credit.
Prerequisite: None.
The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginner or expert in acting, set construction, costuming, make-up, publicity, lights, sound, and theatre management. Not open to students with 8 units of credit in DRMA 27.

30 FILM FOCUS (1 unit)
Sixteen to eighteen hours per unit. Limit of 4 units.
Prerequisite: None.
Designed to focus the awareness and appreciation of the student upon a single type of film, i.e. work of a particular actor, director, theme, etc. Course will concentrate upon an in-depth examination of a very limited area of the art of film.
31 INTRODUCTION TO FILM STUDIES (3 units)  
Three hours lecture per week.  
Prerequisite: None.  
Designed to heighten the awareness and appreciation of the student to an audience's relationship and responsibility to the cinema from its beginning to the present. The critical viewing and discussion of film will provide the basis for the development of aesthetic appreciation. Not open to students with credit in DRMA 22.

32 CONTEMPORARY FILM STUDIES (3 units. Limit 6 units)  
Three hours per week.  
Prerequisite: None.  
Designed to acquaint the student with the audience's relationship to and responsibility to cinema. By viewing and discussing the films of a particular genre, such as the Western or the Foreign film, and then reading and writing about them, the student will develop his aesthetic appreciation of movies and related art forms.

35 PRIMER FOR PLAYGOERS (1 unit)  
Sixteen to eighteen hours per unit. Limited to 4 units.  
Prerequisite: None.  
The study of and exposure to live theatrical performances will increase the appreciation and enjoyment of this often neglected area of the arts and humanities.

Vocational Nursing  
See Health Careers

WATER TECHNOLOGY (WTR T)

50 INTRODUCTION TO WATER RESOURCES (3 units)  
Three hours lecture. At least one field trip to a major water resource project will be made.  
Prerequisite: a good knowledge of basic mathematics, especially algebra, will be very helpful.  
Includes a survey of the basic sciences necessary to an understanding of water resources, a survey of the uses of water, including water supply, recreation, pollution abatement and flood control, government water agencies and their functions and a review of the California Water Project.

51 BASIC WATER TREATMENT (3 units)  
Three hours lecture.  
Prerequisite: None.  
Basic Water Treatment is designed to prepare the entrance level student for Water Facility Operator Certification, Grades 1 and 2, and/or to inform the interested public in the methodology used for the purification of domestic drinking water.

52 BASIC WATER DISTRIBUTION (3 units)  
Three hours lecture.  
Prerequisite: None.  
Basic Water Distribution is designed to prepare the student to obtain Grade 1 certification from the American Water Works Association and/or to inform interested parties in the methods involved in accepted distribution systems and operations.

Welding  
See Industrial Education

WOMEN'S STUDIES (WN ST)

1 THE CONTEMPORARY WOMAN (1 to 3 units)  
Three hours lectures. Eighteen hours attendance per unit.  
Prerequisite: None.  
Explores the problems of the Contemporary Woman. Students can acquire a better understanding of changing roles, laws, job opportunities and how to reenter the labor market. Students will also have the opportunity to explore the problems of being single, divorced or widowed and examine the physical emotional needs of women. Resource people from the community will be utilized.

5SDW SELF DEFENSE FOR WOMEN (0.5–1 unit)  
One to two hours per week for eighteen weeks.  
Prerequisite: None.
• 14 NUTRITION AND FITNESS (3 units)

Two hours lecture and two hours laboratory.
Prerequisite: None.
The student will be able to successfully lose weight using the proper techniques of nutrition and exercise. The proper way of eating, planning, and preparing meals for weight control will be covered in order for students to lose and maintain weight. Individual exercise programs will be developed for every student. (Not open to students with credit in NUTR 14.)

• 21 WOMEN AND THE STRUGGLE FOR EQUAL RIGHTS (3 units)

Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
A study of the women's rights movement in the United States from its beginnings to and including the present day. Not open to students with credit in SPCH 32.

• 22 MEN AND WOMEN AND THE LAW (3 units)

Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
A study of sex-based discrimination in the law as part of the changing status of men and women in American society. Not open to students with credit in POLS 22.

• 23a–23b WOMEN IN LITERATURE (3–3 units)

Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
Women in Literature: Virgin, Demon, Goddess, Temptress, Child, Nymph and Mother: these are the mythical types of the women in literature. Views the role of the woman as a character type, the woman as writer, and the woman as critic. Selected readings include both male and female writers. Central to the course is a consideration of the question, "Can a woman have an identity exclusive of the male-female relationship?" Not open to students with credit in ENGL 23a–23b.

• 25 THE WOMAN MANAGER IN A CHANGING ENVIRONMENT (1.5 units)

Three hours lecture per week for nine weeks.
Prerequisite: None.
The student will better understand the demands of a managerial position. Interpersonal communication, assertiveness training, leadership skills, conflict resolution and stress reduction will all be assessed as they relate to an individual's success and failure in management. The student will better understand managerial expectations in both theoretical and practical matters. Not open to students with credit in SPCH 33.

• 27 WOMEN IN AMERICAN SOCIETY (3 units)

Three hours lecture-discussion.
Prerequisite: Eligibility for ENGL 1a.
Designed to assess the role of the American woman through an analysis of social, political and economic influences. Not open to students with credit in SOC 27. Formerly WN ST 20.

• 28 WOMEN IN THE WORLD (3 units)

Three hours lecture and discussion.
Prerequisite: None.
A comparative study of women's cultures in the societies of the world. Topics are to include historical, psychological, sociological aspects. Selected regional cultures will be emphasized every semester. Not open to students with credit in SOC 28.
• 34 THE UNMARRIED ADULT: DIVORCED, WIDOWED AND SINGLE BY CHOICE (3 units) F S

Three hours lecture.
Prerequisite: None.
The student will develop an understanding of the unmarried adult's life based on a balance of resources, communication patterns, and problem solving skills in adjustment as they relate to everyday life. The student will better understand his/her own goals, values, and motives as they relate to relationships. Not open to students with credit in PSYCH 34.

• 36ab WOMEN ARTISTS (3 units) F

36a—36b (1.5—1.5) equivalent to 36ab.
Three hours lecture.
Prerequisite: None.
The student will gain an understanding of art history and art appreciation through the study of women artists, as related to the psychology, philosophy, and politics of the times. The student will gain an understanding of the contemporary women artists through a biographical approach. Not open to students with credit in ART 24ab. (Formerly WN ST 24ab.)

• 37 PSYCHOLOGY OF WOMEN (3 units)

Three hours lecture/discussion.
Prerequisite: None. PSYCH 51 or 1a recommended.
The student will know and understand the basic concepts of women in history and mythology, theories of female development, states of female adjustment, female abilities, achievement, and motivation, biological influences on female behavior, female sexuality, minority group females, and cross-cultural perspectives on the female role. Included will be emphasis on application of the aforementioned theoretical knowledge to the life of the student. Not open to students with credit in PSYCH 37.

• 39a BEGINNING ASSERTIVENESS TRAINING FOR WOMEN (1.5 units) F S

Three hours lecture for nine weeks.
Prerequisite: None.
The student will understand and apply effective assertiveness skills. The student will demonstrate a familiarity with basic theories and techniques related to assertiveness training. Not open to students with credit in PSYCH 39a.

• 39b ADVANCED ASSERTIVENESS TRAINING FOR WOMEN (1.5 units)

Three hours lecture for nine weeks.
Prerequisite: WN ST 39a or PSYCH 39a.
The student will understand and apply effective assertiveness skills. The student will demonstrate a familiarity with advanced theories and techniques related to assertiveness training. Not open to students with credit in PSYCH 39b.

• 44 DEVELOPING INTERPERSONAL SKILLS (3 units)

Three hours per week.
Prerequisite: None.
Introduction to principles of human interaction in numerous and changing environments through small group discussion. Not open to students with credit in CH ST 44 or PSYCH 44.

74 TOPICS IN WOMEN'S STUDIES (0.5—1 unit. Limit 8 units.)

Eight hours minimum per 0.5 unit.
Prerequisite: None.
Selected topics in women's studies related to current interests, recent developments within the field, historical and current concepts of the status, achievement concerns, and role of women as individuals, as members of society, and in relationship to men.

78 AGILITY AND FITNESS PREPARATION FOR WOMEN IN SAFETY EMPLOYMENT (1.5 units)

Three hours per week.
Designed to develop agility, strength and stamina of students preparing for employment in safety occupations. (Identical to PH ED 78.)

WORK EXPERIENCE

COOPERATIVE WORK EXPERIENCE EDUCATION

Cooperative Work Experience offers students an opportunity to combine a planned college study program with on the job experience, organized and coordinated by the college to provide an applied practical learning experience in business, industry, or government agency. Students must carry a minimum of 8—12 units, attend one hour seminar per week, and work 5 to 20 hours per week in a college approved job station. Students will be enrolled in Vocational/Occupational or General Work Experience only with permission of Director or designated representative.
WORK EXPERIENCE
(W EXP)

50 COOPERATIVE WORK EXPERIENCE EDUCATION
(1–4 units per semester. Limit 16 units.)

One hour per week seminar and five to twenty (or more) hours per week in college approved job station. A minimum of seventy-five hours on a paid job station, or sixty hours on a non-paid job station is required each semester to earn one unit of credit.
Prerequisite: Meet program qualifications, (7 unit minimum including work experience units) declared vocational/occupational major in area of Work Experience units. Student's declared major course of study must relate to the supervised job station. The one hour seminar offers special related instruction in educational-career guidance, human relations, success factors on the job, attitudes, motivation and initiative, grooming, consumer economics, human behavior, man and the organization, current factors related to on the job experiences, decision making, achieving career goals.

50a+ COOPERATIVE WORK EXPERIENCE EDUCATION
(1–8 units per semester. 1–4 units per summer session. Limit 16 units)

One hour per week seminar and five to forty hours per week in college approved job station. A minimum of seventy-five hours on a paid job station, or sixty hours on a non-paid job station is required each semester to earn one unit of credit.
Prerequisite: Completion of 7 units of major course work with G.P.A. of 2.0 prior to the semester or summer session work assignment. Attend one hour Work Experience seminar during semester of course work.
Student's declared major course of study must relate to the supervised job station. The one hour seminar offers special related instruction in educational-career guidance, human relations, success factors on the job, attitudes, motivation and initiative, grooming, consumer economics, human behavior, man and the organization, current factors related to on the job experiences, decision making, achieving career goals.

51 GENERAL WORK EXPERIENCE
(1–3 units per semester. Limit of two semesters and 6 units.)

One hour per week seminar and five to fifteen (or more) hours per week in college approved job station. A minimum of seventy-five hours on a paid job station, or sixty hours on a non-paid job station is required each semester to earn one unit of credit.
Prerequisite: Meet program qualifications, 7 unit minimum including Work Experience units.
Student's planned course of study need not relate to the supervised job station. Designed for students with little or no exposure to the world of work. The one hour seminar offers special related instruction in career information, development of skills to seek, obtain and maintain employment, resumes and interviewing, human relations, employment market, consumer economics, decision making, achieving career goals.
ADMINISTRATION and FACULTY

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Assistant Chancellor    Kenneth Fahsbender
Educational Planning and Development
Assistant Chancellor, Personnel    John P. Hernandez

COLLEGE ADMINISTRATION

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Assistant to the President David C. Scott
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Dean of Occupational Education Paul M. Howard
Assistant Dean, Downtown Center Victor Ste Marie
Dean of Educational Services William J. Heffernan
Associate Dean, Library Services/Learning Center Claire J. Larsen
Dean of Students          Richard L. Wright
Associate Dean, Counseling Harriet L. Sheldon
Associate Dean, Financial Aides Yvonne W. Miliken
Assistant Dean of Student Activities
Director of Admissions and Records Sue Scoggins
Dean of Continuing Education, Community Services and Summer Session Richard H. Harkins
Associate Dean of Continuing Education, Community Services and Summer Session Ronald McMasters
Dean of the Delano Center Jesus G. Nieto
Assistant to the Dean, Delano Center Patrick O. Shaffer
Dean of Certificated Personnel
and Staff Development Phyllis S. Dabbs
Assistant Dean, Special Services
and Facilities Planning Dell V. Whetsler

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English                   Merriem Palitz
Family and Consumer Education Carol Sharpe
Foreign Languages          Helena Salaverria
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Health Careers            Max Burdick
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Physical Science          Sally Hill
Psychology                Archible Sherman
Public Services           Clifton Garrett
Social Sciences           John Lyman
Sociology, Anthropology and Geography
Theatre Arts              Robert Chapman

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FACULTY
EMERITI

ALBAUGH, Dorothy
A.B., M.S., University of Washington

ANGELO, Joseph E.
A.A., Bakersfield College

BOYCE, Ferris A.
A.R.T., University of Nebraska

BOYD, W. Harland
A.B., M.A., Ph.D., University of California, Berkeley

BRADLEY, Jesse T.
B.S., University of Georgia; Vocational Credential, University of California, Los Angeles; M.S., Oklahoma State University

BRAILSFORD, Robert E.
B.S., M.S., Brigham Young University; Ph.D., University of Utah

CAFFERTY, Kathryn W.
R.N., St. Joseph's Hospital; B.S., Immaculate Heart College;
M.S.N.E., Catholic University of America;
Professional Diploma, Ed.D., Teachers College, Columbia University

CLARK, Robert L.
B.A., University of California, Santa Barbara;
M.F.A., Carnegie Institute of Technology

DRENNAN, Harry
Vocational Credential, University of California, Los Angeles

EWING, John L.
B.S., U.S. Naval Academy; M.S., University of Michigan

FINLINSON, Burns L.
B.S., M.S., Brigham Young University

FORKER, Ysabel H.
A.B., University of California;
Diploma de Suficiencia, University of Madrid, Spain

FREED, J. Paul
B.S., M.S., University of Pittsburgh

FROST, Wallace D.
B.E., University of California, Los Angeles

GORDON, Paul
A.B., M.A., University of California, Berkeley

GRAFF, Mary Elizabeth
B.S., University of Illinois; M.A., University of California, Los Angeles

HALLING, Victor J.
B.A., University of Utah; M.A., Stanford University; Ed.D., Brigham Young University

HANSEN, Holger
B.S., M.Ed., College of Agriculture, Davis; M.Ed., University of California, Davis

HARRIS, R. Byron
B.A., Portland University; M.B.A., Michigan State University

HEMMERLING, Edwin M.
A.B., University of Redlands; M.S., University of Southern California

HILTON, SYBIL P.
B.S., M.S., University of California, Los Angeles

HOYT, Barbara
B.S., University of California, Berkeley

HULSEBUS, Lowell B.
B.A., Western Union College; B.S., M.S., University of Nebraska

INGLES, Goldie
A.B., Certificate of Librarianship, University of California, Berkeley

JOHNSTON, Donald E.
B.S., Nebraska State Teachers College; M.A., College of Pacific

JONES, Wylie L.
B.S., Dartmouth College; M.B.A., University of California, Los Angeles

KEOUGH, Edna
A.B., University of California; M.A., University of Washington

KILBURN, H. Parley
B.S., M.S., Utah State University; Ed.D., Stanford University

KLEINHAMPLE, Alvin
A.B., University of California, Santa Barbara

LEFEVRE, Eva
A.B., University of Hawaii; Diploma, University of Paris

LEVISON, Margaret H.
A.B., M.A., Mills College

Maguire, Ruth E.
A.B., University of California, Los Angeles; M.A., Syracuse University;
Ed.D., University of California, Los Angeles

MC CLANAHAN, Walter
B.A., University of Nebraska; M.E., Colorado State College

MC KAIG, Leonard
A.B., M.A., College of Pacific

MERSION, Thomas B.
A.B., San Jose State College; M.A., Ed.D., University of California, Berkeley

OGDEN, L. Furr
B.A., The College of the Ozarks; M.S., University of Southern California

PARMENTER, Lucille
A.B., Fresno State College
ROWE, Jack
A.B., University of California, Berkeley; M.A., University of Southern California; Ed.D., University of Colorado
SAND, Pauline
A.B., Hunter College; M.A., Columbia University
SCHAFFER, Adelaide
A.B., M.A., University of California, Los Angeles
SILVEY, David
B.S., Purdue University; M.Ed., Pennsylvania State University
BAND, Pauline
A.B., Hunter College; M.A., Columbia University
SCHAFER, Adelaide
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SILVEY, David
B.S., Purdue University; M.Ed., Pennsylvania State University
BAND, Pauline
A.B., Hunter College; M.A., Columbia University
SCHAFER, Adelaide
A.B., M.A., University of California, Los Angeles
SILVEY, David
B.S., Purdue University; M.Ed., Pennsylvania State University

FACULTY

ACKLAND, John R.—Professor. _________________Biolo
B.A., Hanover College;
M.A., (Biology), California State University, Humboldt;
M.A., (Education), California State University, Humboldt
ADAM, William Henry—Assistant Professor. ______Learning Center
A.B., California State University, San Diego
M.A., California State College, Bakersfield
AKIN, Helen B.—Professor. _________________Fami
A.B., University of California, Berkeley
ALLISON, Robert D.—Professor. ____________Chairperson, Physical Science Department
B.S., California State University, San Jose; M.S., Oregon State University;
Ed.D., University of Northern Colorado
ALLSMAN, Ronald L.—Professor. ____________Bacteriology, Biology, Pharmacology
B.S., Pharm. D., University of California Medical Center
ANNIS, Margaret E.—Professor. ______________Business Education
A.B., M.A., M.B.A., University of California, Berkeley;
M.R.E., The New York Theological Seminary
APPEL, Jacqueline—Professor. _______________English
A.B., Stanford University; M.A., California State University, Fresno
ARAKELIAN, Margaret—Assistant Professor. ______L.V.N. Program
R.N., Huntington Hospital, Pasadena, California;
B.S., University of Southern California
AXFORD, Marian P.—Professor. ______________English
B.A., Nebraska Wesleyan University; M.S., University of Southern California
BARADAT, Armand J.—Associate Professor. ______Administration of Justice
B.S., California State University, Humboldt
BARRY, Vincent—Professor. _________________Philosophy
B.A., Seton Hall University; M.A., Fordham University
BELCHER, Duane M.—Professor. ______________Psychology
A.B., M.A., University of California, Berkeley
BENJAMIN, Carl—Professor. _________________Mathematics
B.S., Central State University; M.S., Syracuse University
BENSTON, Carol—Associate Professor. __________English
B.A., Rollins College; M.A., University of Miami
BENSTON, Richard L.—Professor. ______________English
B.A., M.A., University of Washington
BERARDI, Allen C.—Associate Professor. ______Chairperson, Business Education
B.S., M.A., University of Denver
BIHLMAN, Georgene—Professor. ________________Physical Education
A.B., California State University, San Jose; M.A., Stanford University
BLUNT, Marlene Lou—Associate Professor. ______Physical Education
B.S., Bowling Green State University; Women's Track and Field Coach,
M.S., University of California, Los Angeles Women's Cross Country Coach
BONNER, Frederick—Professor. _________________Industrial Education
B.A., California State University, San Jose; M.A., California State University, Fresno
BOWERS, Sandra—Assistant Professor. ___________Physical Education,
B.S., Georgia College; Women's Assistant Track and Field Coach
M.A., California State University, Sacramento

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<td>DAVIS, Thomas H., III</td>
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<td>DETHLEFSON, Ronald</td>
<td>Professor</td>
<td>Broadcasting, Communications</td>
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<td>DHIARIWAL, Mita</td>
<td>Associate Professor</td>
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<td>DIETZ, Robert C.</td>
<td>Professor</td>
<td>Chemistry</td>
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<td>DILLON, Bona L.</td>
<td>Associate Professor</td>
<td>Journalism, B.S., Ball State University</td>
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<td>DISKIN, Mary L.</td>
<td>Assistant Professor</td>
<td>Business Education</td>
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<td>DUAX, Richard L.</td>
<td>Professor</td>
<td>Reading, French</td>
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<td>DUNSTAN, Earl A.</td>
<td>Associate Professor</td>
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<td>EDGOMON, Sharon J.</td>
<td>Associate Professor</td>
<td>Mathematics</td>
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<td>EDMONDS, Bobby J.</td>
<td>Professor</td>
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<td>EDWARDS, Nancy Joan</td>
<td>Professor</td>
<td>English</td>
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<td>ELLIOTT, Ruth</td>
<td>Professor</td>
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<td>FANUCCI, Larry</td>
<td>Associate Professor</td>
<td>Industrial Education</td>
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<td>FINCH, Bill</td>
<td>Professor</td>
<td>Chairperson, Health-Physical Education</td>
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<td>FISHER, Jackie Lee</td>
<td>Assistant Professor</td>
<td>Fire Technology</td>
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<td>FLAMING, Robert W.</td>
<td>Professor</td>
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<td>FLEENOR, Terry R.</td>
<td>Professor</td>
<td>English, Philosophy</td>
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<tr>
<td>FRICKER, Norman C.</td>
<td>Assistant Professor</td>
<td>Speech, Forensics Director</td>
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<td>FUNK, Robert</td>
<td>Professor</td>
<td>Architecture</td>
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<td>GARFIELD, Mary Lou</td>
<td>Associate Professor</td>
<td>Theatre Arts</td>
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<td>GARRETT, Clifton</td>
<td>Professor</td>
<td>Chairperson, Social Science Department</td>
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<tr>
<td>GILMAN, Edith</td>
<td>Assistant Professor</td>
<td>L.V.N. Program</td>
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<td>GILNN, James A.</td>
<td>Professor</td>
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<td>GONZALES, Manuel, Jr.</td>
<td>Associate Professor</td>
<td>Counselor</td>
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<td>GRASS, Richard</td>
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<td>GRAY, George</td>
<td>Professor</td>
<td>Psychology</td>
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<td>HAMILTON, Betty Jo</td>
<td>Professor</td>
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<td>Professor</td>
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<td>HASHIM, Arleen M.</td>
<td>Associate Professor</td>
<td>Family and Consumer Education</td>
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<td>HASLETT, Donald R.</td>
<td>Associate Professor</td>
<td>Coordinator, Correctional Program</td>
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<td>A.B., M.A., California State University, Long Beach</td>
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*A.B., M.A., University of California, Berkeley
B.F.A., M.F.A., Otis Art Institute, Los Angeles
B.S., Castleton State College; M.S., Utah State University
B.A., University of California, Berkeley; M.S., California State University, Fresno; Ph.D., Nova University
B.S., University of Utah; M.S., Oregon State University
B.A., De Paul University; M.A., Stanford University
B.A., California State University, San Jose
B.A., California State University, Los Angeles
A.A., Bakersfield College, A.B., University of California, Berkeley; M.A., Pepperdine University
B.A., M.A., California State University, San Diego
B.A., Whittier College; M.A., California State University, San Jose
B.A., California State University, Chico; M.A., University of Pacific
B.A., California State University, Fresno; M.A., University of Northern Colorado
B.A., California State University, Fresno; M.A., A.A., Bakersfield College; Diving Coach
B.A., M.A., California State University, San Jose
B.A., California State University, Fresno; M.A., California State College, Bakersfield
B.A., California State University, Fresno; M.A., California State University, Long Beach
B.A., M.A., Arizona State University
Ph.D., University of California, Riverside
B.A., M.A., California State University, Long Beach
B.A., University of California, Santa Barbara;
M.A., California State University, San Jose
B.A., Montana State University; M.F.A., University of Utah
B.A., M.A., California State University, Los Angeles
B.A., California State University, Northridge
R.N., Fresno General Hospital; B.S., Chapman College
B.A., M.A., California State University, San Jose
A.A., Bakersfield College;
B.S., California State University, San Jose;
M.A., California State College, Bakersfield
B.S., Northwestern University; M.A., Stanford University;
Ph.D., University of Illinois
R.N., Ashbury School of Nursing;
B.S.N., California State College, Bakersfield
B.A., M.A., California State University, Fresno
B.A., M.A., George Peabody College
B.A., University of California, Los Angeles;
M.A., California State University, Sacramento
A.B., St. Mary’s College; M.A., University and Community Services of California, Berkeley; Ed.D., University of California, Los Angeles
B.A., M.A., California State University, Fresno
Education-Teacher Aide Program
B.S., M.S., California State University, Fresno
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<td>HAYCOCK, Lawrence K.</td>
<td>Associate Professor</td>
<td>Agriculture</td>
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<td>Dean of Educational Services, Vocational Credential, University of California, Los Angeles</td>
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<td>HELMSTEDTER, Warren E.</td>
<td>Associate Professor, A.A., Bakersfield College Work Experience Education and Coordinator of B.V.E., California State University, Fresno Instructional Services, P.S.E.</td>
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<td>HENCH, Irene E.</td>
<td>Associate Professor</td>
<td>Librarian</td>
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<td>B.A., California State University, Fresno; M.A.L.S., California State University, San Jose</td>
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<td>HIGGINS, Eloise F.</td>
<td>Professor</td>
<td>Family and Consumer Education, B.S., University of Southern California, Child Study Center</td>
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<td>HILL, Sally F.</td>
<td>Associate Professor</td>
<td>Chairperson, Psychology Department</td>
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<tr>
<td>兒童 LOVE, California State University, San Jose</td>
<td>traditional English, Theatre Arts</td>
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<td>HOFFMAN, Norman</td>
<td>Professor</td>
<td>Health-Physical Education</td>
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<td>B.S., M.Ed., Oregon State University</td>
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<td>HOKT, Lloyd D.</td>
<td>Professor</td>
<td>Chairperson, Agriculture Department</td>
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<td>B.S., M.A., California Polytechnic State University, San Luis Obispo</td>
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<td>HONIG, Sasha</td>
<td>Professor</td>
<td>History</td>
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<tr>
<td>B.A., University of California, Santa Barbara; M.A., University of California, Berkeley</td>
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<td>HORWEGE, Henry</td>
<td>Professor</td>
<td>English, Theatre Arts</td>
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<tr>
<td>B.A., University of California, Los Angeles; M.A., California State University, San Jose</td>
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<td>HOWARD, Evan D.</td>
<td>Professor</td>
<td>English</td>
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<td>B.A., M.A., California State University, San Jose</td>
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<tr>
<td>HOWARD, Paul M.</td>
<td>Professor</td>
<td>Dean of Occupation Education</td>
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<td>B.A., M.A., University of San Francisco</td>
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<td>HULLETT, Phyllis K.</td>
<td>Professor</td>
<td>Physical Education</td>
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<td>B.S., M.E., University of Minnesota Coordinator, Women’s Center</td>
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<td>INSKIP, James B.</td>
<td>Professor</td>
<td>History, Political Science, International Ph.B., A.M. University of Chicago Relations, and Religious Studies</td>
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<td>JACOBS, Fred R.</td>
<td>Professor</td>
<td>Librarian</td>
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<td>JACOBSION, LaVonda HOPE</td>
<td>Instructor</td>
<td>A.D.N. Program</td>
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<td>JACOBUS, Mary Jane</td>
<td>Professor</td>
<td>A.D.N. Program</td>
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<tr>
<td>R.N., Johns Hopkins Hospital School of Nursing; B.A., University of Maryland; M.A., California State University, Fresno</td>
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<td>JANEWAY, Miriam E.</td>
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<td>JOHNSON, Catherine C.</td>
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<td>Mathematics</td>
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<td>Coordinator of P.S.E. Training</td>
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<td>Learning Center</td>
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<td>Physical Education, B.A., M.A., California State University, San Jose Assistant Football Coach</td>
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<td>Educational Diagnostic Center, B.S., University of Utah; Learning Center</td>
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<td>Associate Professor</td>
<td>Physical Education, B.S., Ed.M., Oregon State University Men’s Basketball Coach</td>
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Landon, Norma K. — Professor — A.D.N. Program
R.N., Presbyterian Hospital School of Nursing; B.S., Columbia University, M.A., Teachers College, Columbia University

Lango, Peter M. — Professor — Physical Education
B.A., California State University, Fresno; M.S., California Polytechnic State University, San Luis Obispo

Larios, Daniel L. — Assistant Professor — Ornamental Horticulture
B.S., California State University, Fresno; M.Ed., California State College, Bakersfield

Larsen, Claire J. — Associate Dean of Library Services and Learning Center
B.S., Utah State University; M.A. California State University, San Jose; Ed.D., Brigham Young University

Laufenbruch, H. Kenneth — Professor — Geology, Engineering
A.B., Miami University; Ph.D., Ohio State University

Lawrence, George E. — Professor — Chairperson, Life Science Department
B.A., M.A. Ph.D., University of California, Berkeley

Lazene, Jean — Assistant Professor — Business Education
B.S., Southern Utah State College; M.S., Utah State University

Lee, Patricia — Professor — Chemistry
B.S., M.S., University of California, Berkeley

Lewis, Gaylen G. — Professor — Social Science
B.S., Utah State University; M.A., University of California, Berkeley

Litherland, Donna — Professor — Counselor, Reading
B.S., North Dakota State University; M.A., California State University, Fresno

Lockford, Joyce C. — Professor — English
B.A., University of California, Berkeley; M.A., University of Utah

Logan, Carolyn P. — Assistant Professor — Business Education
B.S., California State Polytechnic University

Loken, Herbert L. — Professor — Director of Men’s Athletics
B.S., University of Minnesota; M.A., Stanford University

Longacre, Avilla B. — Assistant Professor — A.D.N. Program
R.N., Wesley Hospital; B.S., Ohio State University

Ludeke, Jerry L. — Associate Professor — Learning Center, Reading
A.B., Indiana University; M.F.A., Tulane University; M.A., Stanford University

Ludeke, John M. — Professor — History
A.B., M.A., Stanford University; M.A., University of Oregon

Lyman, John C. — Associate Professor — Chairperson, Sociology
A.B., California State University, San Diego; M.A., California State University, San Francisco

Mallory, Phyllis J. — Professor — Communications
B.A., M.A., University of Pacific

Marquez, Fernando N. — Assistant Professor — Business Education
A.A., Bakersfield College; B.S., California State University, Fresno

Marshall, F. Rodney — Professor — Counselor
A.B., University of California, Berkeley; M.B.A., University of Arizona; M.A., California State College, Bakersfield

Mason, James W. — Associate Professor — Chairperson, Music Department
B.A., University of California, Riverside; M.A., D.M.A., Stanford University

Mc Carter, Michel — Associate Professor — Art; Director, Art Gallery
B.A., M.A., California State University, San Jose

Mc Coy, James — Professor — Industrial Education
Vocational Credential, University of California, Los Angeles

Mc Gee, George M. — Professor — Business Education
B.A., St. Joseph’s College; M.A., George Washington University

Mc Gowan, Patricia — Assistant Professor — English
B.A., Whitman College, Washington; M.A., California State University, Chico

Mc Kay, Peter B. — Professor — History
A.B., M.A., Stanford University

Mc Masters, Ronald — Associate Dean, Continuing Education
B.A., M.S., California State University, Fresno

Meert, Paul — Professor — Mathematics
B.A., University of Notre Dame; M.A., California State College, Bakersfield

Meier, Bruce N. — Professor — Business Administration, Social Science, History
B.A., University of California, Berkeley; J.D., Boalt Hall Law School, University of California, Berkeley

Melenchuk, Ramon — Professor — Spanish
B.A., M.A., California State University, San Francisco

Mercer, Lynne E. — Associate Professor — A.D.N. Program
B.S.N., California State University, Fresno; M.A.Ed., Pepperdine University

Metzger, Mary K. — Assistant Professor — Coordinator, Medical Vocational Credential, University of California, Los Angeles

Milliken, Yvonne W. — Associate Dean of Student Services
B.A., University of Northern Colorado; M.A., California State University, Fresno

Minor, Barry B. — Associate Professor — Sociology
B.A., Philander Smith College; M.P.A., University of Southern California

Molinari, Richard H. — Assistant Professor — Agriculture
A.A., Bakersfield College;
B.S., California State Polytechnic University

Moore, Carol A. — Assistant Professor — Business Education
A.A., Bakersfield College;
B.A., California State University, San Jose

Murillo, Daniel J. — Assistant Professor — Counselor, Testing, Psychology
A.A., Bakersfield College; B.A., California State College, Bakersfield; M.A., University of Southern California

Naso, Albert — Professor — Chairperson, Art Department
B.F.A., Pratt Institute; M.A., New York University

Nelson, William G. — Professor — Physical Education
B.A., M.A., University of Wyoming

Golf Coach
SHERMAN, Archible W.—Professor  . Chairperson, Public
B.A., California State University, San Jose;
M.A., College of Pacific

SHERMAN, Frank W.—Professor  . English
B.A., Wesleyan University; M.A., University of California, Berkeley

SHEWON, Harriet L.  . Associate Dean of Counseling and Testing

SMITH, Robert A.—Professor  . Business Education
B.A., California State University, Fresno

SMITH, Peter D.—Professor  . Industrial Education
B.A., M.S., Vanderbilt University; Ph.D., George Peabody College

SMITH, Stephen D.—Assistant Professor  . Economics, Computer Science
B.A., University of California, San Diego;
M.A., University of Southern California;

SPROUL, Joyce F.—Assistant Professor  . Special Education,
A.A., Bakersfield College
B.A., University of California, Los Angeles;
M.A., California State University, San Jose

STE MARIE, Victor L.—Assistant Dean of Downtown Center
B.S., Lyndon State College; M.Ed., Boston University

STANSBURY, Donald L.—Professor  . English; Advisor, Campus Arts
B.A., University of California, Los Angeles;
M.A., California State University, San Jose

TATSUNO, Marlene—Associate Professor  . Art
A.A., Bakersfield College;
B.A., M.A., California State University, Chico

THIROUX, Jacques P.—Professor  . Chairperson, Philosophy Department
B.A., Pomona College; M.A., (English) California State University,
San Francisco; M.A., (Philosophy), University of Southern California

THOMAS, Barbara L.—Assistant Professor  . Academic Advisor,
B.S., Cornell University
B.S.N., P.H.N., California State College, Bakersfield

THOMAS, William M.—Associate Professor  . Political Science, Social Science
B.A., M.A., California State University, San Francisco

TILLMAN, Patricia E.—Professor  . L.V.N. Program
A.A., Bakersfield College; R.N., St. Mary’s College of Nursing;
B.S.N., P.H.N., California State College, Bakersfield

TISCHBIREK, Edwin A.  . Coordinator, Apprenticeship
B.S., M.Ed., University of California, Davis

TOKUYAMA, M. Yukie—Associate Professor  . History, Social Science
B.A., University of California, Los Angeles;
M.A., University of Washington

TORREZ, Esther A.—Assistant Professor  . Counselor
A.A., Porterville College; B.A., California State University,
Fresno; M.A., California State College, Bakersfield

TREMBLEY, Shirley R.—Professor  . Mathematics
B.A., University of California, Los Angeles;
M.A., California State University, Fresno

TRIPPLET, Josephine L.—Assistant Professor  . Family and Consumer
A.A., Bakersfield College

TRITTEN, Betty—Associate Professor  . Mathematics
B.S., University of North Dakota;
M.A., California State University, San Jose

TURNER, James B.—Professor  . Physical Education, Men's Swimming Coach
A.B., University of California, Berkeley; M.A., Stanford University

TUTTLE, Robert E.—Assistant Professor  . Industrial Education
A.A., Bakersfield College;
B.A., California State University, Fresno;
M.A., California State University, Long Beach

VERHINE, Clyde E.—Professor  . Social Science
B.A., M.A., Stanford University

WARD, Ray M.—Professor  . Chemistry
B.S., M.S., Oregon State University

WARREN, Harvey—Associate Professor  . Social Science
A.A., Bakersfield College; B.S., Montana State University;
M.S.W., California State University, Fresno

WATTS, Jane L.—Assistant Professor  . English
B.A., M.A., Michigan State University

WEBB, Henry R.—Assistant Professor  . Theatre Arts
B.A., M.A., California State University, Fresno

WEBSTER, Persi W.—Professor  . Spanish
A.B., M.A., Stanford University

WHETSLER, Dell V.—Assistant Dean of Special Services
B.S., M.S., University of Idaho

WHITEHOUSE, James M.—Professor  . Psychology
A.A., American River College; B.A., M.A., California State University,
Sacramento; Ph.D., California School of Professional Psychology;
Post-Ph.D., Temple University Medical School, Eastern Pennsylvania
Psychiatric Institute

WICKEY, Robert O.—Associate Professor  . Chemistry, Industrial Drawing
B.S., University of Missouri; M.S., University of Minnesota

WILLARD, Caroline—Professor  . English, Spanish
B.A., Michigan State University; M.A., University of Texas

WILLARD, J. David—Professor  . English
B.A., M.A., University of Texas

WILLIAMS, Billie E.—Professor  . Coordinator, Special Education
B.S., Northeastern State College; M.S., New Mexico Highlands University

WILLIS, Muriel—Associate Professor  . Learning Center, Reading
B.A., Western Michigan University; M.A., University of Michigan

WILSON, William—Associate Professor  . Photography
B.F.A., M.F.A., San Francisco Art Institute

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WOBBE, Paul Fredrick—Associate Professor
A.D.N. Program
B.S., California State University, San Francisco;
M.S., California State University, Fresno

WOOD, Charles H.—Professor
Director of Band, Music
B.S., University of Ohio; M.A., Teachers College, Columbia University;
Ph.D., University of California, Los Angeles

WOOD, Linda E.—Assistant Professor
L.V.N. Program
R.N., Samuel Merritt Hospital, Oakland; B.S., Chapman College

WORTHINGTON, Marilyn—Associate Professor
Family and Consumer Education
B.S., College of Saint Scholastica

WRIGHT, Richard L.
Dean of Students
B.A., M.A., Kent State University; Psychology
Ph.D., University of Northern Colorado

WULF, Evelyn M.—Associate Professor
Librarian
B.A., M.A., University of Denver

YALE, Thomas H.—Professor
Life Science
B.A., M.A., California State University, San Jose

ZIMMERMAN, John—Professor
Geology
A.B., California State University, San Jose; M.A., Stanford University

ZUNIGA, Alan D.—Associate Professor
Director E.O.P.S.
A.A., Sacramento City College; B.A., California State College,
San Bernardino; M.S., California State University, San Diego
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