CANADA COLLEGE CATALOG 70-71



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Cañada College is approved by the Office of the Chancellor of California Community Colleges and by the Veterans Administration and is fully accredited by the Western Association of Schools and Colleges.



A FRISKY COLT . . . SYMBOLIC MASCOT FOR CANADA ATHLETICS.

A community college within the San Mateo Junior College District 4200 Farm Hill Boulevard • Redwood City, California 94061

# **Foreword**



William A. Goss

#### TO THE STUDENTS OF CANADA COLLEGE:

It is my pleasure, on behalf of the faculty and staff, to extend a hearty welcome to Cañada College.

After two years of dedicated work by students, staff and the Board of Trustees, Cañada College is now firmly established and fully accredited. It is, however, still new enough to be flexible and friendly. We covet your ideas and your participation.

This catalog—like a road map—is designed to help you find your way. You will be seeking counsel from the faculty, but this catalog should help you make your own wise choices.

I look forward to meeting you, and, to make this possible, I schedule an "open house" in my office every Friday noon. Please feel free to visit or to make suggestions.

William a. Goss

WILLIAM A. GOSS President

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# Calendar

1970-1971

June 13 Placement examinations (8 a.m.) July 3-4 . . . . . Independence Day holiday July 11 . . . . . Placement examinations (8 a.m.) Placement examinations (8 a.m.) August 17 - September 4 Counseling and registration, fall semester, 1970 August 29 . . . . Registration for special students (9 a.m.)

#### Fall Semester

September 1, 2, 3, 4 Counseling and registration September 7 . . . Labor Day holiday September 9 . . . Admission Day holiday September 10 . . . . Day classes begin September 14 . . . Evening classes begin September 16. . . . Last day to add new classes September 23 . . . Last day to drop a class without penalty October 15 . . . . Applications available for spring, 1971, semester October 30 . . . Midterm grade reports November 11 . . . . Veterans' Day Holiday November 20 . . . Last day to drop a class without dean's approval November 26, 27 . . Thanksgiving recess December 1-December 18 Counseling for continuing students December 11 . . . Last day to apply for fall graduation December 12 . . . Placement examinations (8 a.m.) December 21 - January 1 Winter recess January 4 - January 13. Spring, 1971, registration for continuing students January 9 . . . . Placement examinations (8 a.m.)

January 13 - January 22 Final examinations

January 14 - January 26 Counseling and registration

January 15 . . . Evening College classes close

January 20 . . . . Registration, special students, new and returning

January 22 . . . . Day College classes close

# Spring Semester

January 25 - January 29	Between-semester recess
February 1	Day and Evening College classes begin
February 5	Last day to add new classes
February 12	Lincoln's Birthday holiday
February 15	Washington's Birthday holiday
February 16	Last day to drop a class without penalty
March 15	Applications available for fall, 1971, semester
April 2	Midterm grade reports
April 5 - April 9	Spring recess
April 16	Last day to apply for June graduation
April 17	Placement examinations (8 a.m.)
April 23	Last day to drop a class without dean's approval
April 24, May 1, 8	Placement examinations (8 a.m.)
May 31	Memorial Day holiday
June 1 - June 10	Final examinations
June 4	Evening College classes close
June 10	Day College classes close
June 11	Commencement
June 19	Placement examinations (8 a.m.)

# **Board of Trustees**

Elio A. Fontana (Since 1969) Manufacturing Executive

Eleanore D. Nettle (Since 1956) Housewife

Francis W. Pearson, Jr. (Since 1963) Certified Public Accountant

Robert A. Tarver (Since 1953) Attorney

Carl E. Ward (Since 1960) Bank Executive

# **Administration**

District Chancellor-Superintendent
Clifford G. Erickson

Assistant Superintendent for Business Affairs

Matteo V. Fasanaro

#### CANADA COLLEGE STAFF

President William A. Goss

Dean of Instruction
George A. Mangis

Associate Dean of Instruction,
Continuing Education
Leland H. Mahood

Assistant Dean, Evening College and Vocational-Technical Education Frederick L. Gilman

Chairman, Library and Audio Visual Amerigo T. Ciani

Assistant for Community Education
Ruth K. Nagler

Dean of Students
William J. Walsh

Dean of Men Robert C. Fryckman

Dean of Women
Patricia Pallister

Head, Student Development Program Lester S. Campbell

Assistant for Information Services

Drucilla A. Anderson

Assistant for Registration
Lynn E. Carlyle

Manager of Services
John H. Rhoads

#### CHAIRMEN, DAY DIVISIONS

Business

Louis E. Yaeger

English and Foreign Languages
Robert Stiff

Fine Arts

John Krueger

Mathematics and Physical Sciences

Donald C. Raney

Physical Education and Recreation Gordon M. Gray

Social Sciences
Melvyn E. Pratt

Life Sciences and Health Education John C. Forsythe, Jr.

# **Faculty**

1970-1971

(Date of appointment to San Mateo Junior College District follows name.)

Aarons, Bernard L. (1960) Geology, Geography B.S., Pennsylvania State College M.S., University of Calif, Berkeley

Anderson, Clinton L. (1969)
Military Science
B.A., Washington & Lee University
M.A., University of North Carolina

Andrew, Alan (1968)
Mathematics and Physics
B.S., University of Nebraska
M.S., California Institute of
Technology
Ph.D., California Institute of
Technology

Ashley, Lyman C. (1968)
Physical Education
B.S., California State Polytechnic
College
M.A., California State Polytechnic
College

Berdon, Jean D. (1969) Chemistry, Mathematics B.S., Tufts University M.S., University of Connecticut

Blanton, Donald J. (1964) Biology, Botany B.A., Aquinas College M.S., University of Michigan

Cabin, Seymour H. (1969) Psychology B.S., University of Illinois M.A., Bowling Green Ph.D., Ohio State University Campbell, Lester S. (1969)
Head, Student Development
Program
B.S., Bethune Cookman
M.A., San Francisco State College

Chan, Florence M. (1968)
Library
B.A., University of British Columbia
M.L.S., Univ. of California, Berkeley

Ciani, Amerigo T. (1965)
Chairman, Library and
Audio-Visual Services
A.B., M.A., M.L.S., Ph.D., Univ. of
California, Berkeley

Clemens, Roger W. C. (1957) Forestry B.S., M.S., Univ. of California, Berkeley

Cline, Alec O. (1968) Food Technology, Instructor-Chef

Coleman, Gaylord W. (1969)
Counselor
A.B., Northwest Missouri State
College
M.A., Stanford University

Collins, James E. (1954) Economics, Counselor A.B., Syracuse University A.M., Stanford University

Coltrin, Dorothy M. (1969) Nutrition B.S., M.A., Univ. of Calif., Los Angeles Cory, Genevieve H. (1968) Home Economics

B.S., University of Nevada M.A., Univ. of California, Berkelev

Crockett, R. Kent (1965) Speech, English B.A., M.A., San Jose State College

Crowley, Evelyn M. (1948)
College Nurse, Health Education
R.N., Philadelphia General Hospital
B.S., Ohio State University
M.S., Univ. of California, Berkeley

Crystal, Thomas L. (1968) Geography B.S., U.S. Military Academy M.A., Columbia University

Curtis, Robert M. (1967)
English
B.A., M.A., San Francisco State
College

Custodio, James G. (1969)
Counselor, Student Development
Program

B.A., M.A., San Francisco State College

de la Rocha, Gilberto P. (1968) Cooperative Education, English A.A., Grant Technical College B.A., Sacramento State College

Del Gaudio, Joan A. (1965) Business, Counselor B.S., Cen. Connecticut State College M.Ed., Boston University

Denison, Frank G. (1964)
Engineering
S.B., Mass. Institute of Technology
M.S., A.E., California Institute of
Technology

D'Epiro, Pasquale S. (1961) Librarian B.A., Hunter College M.A., Denver University Drever, Jerard D. (1968)
Physical Education
A.A., College of San Mateo
A.B., San Jose State College

Eakin, J. David (1968) Spanish, French A.B., M.A., University of Oregon

Earnhardt, Eldon D. (1969) Anthropology B.A., M.A., San Francisco State College

Easter, Stanley E. (1969)
Music, Counselor
B.M., University of Rochester
M.M.Ed., University of Oklahoma
Ed.D., Columbia University

Eckert, Edward K. (1969)
Military Science
B.A., St. Bonaventure University
Ph.D., University of Florida

Ellett, Melvin K. (1952)
Drama
A.B., B.M., Ph.D., Stanford University

Fahey, Frank M. (1956)
History
A. B., University of Washington
A.M., Ph.D., Stanford University

Festa, Angelo R. (1966)
Physical Education
B.S., Michigan State University
M.S., Southern Illinois University

Forsythe, John C., Jr. (1957) Chairman, Life Sciences and Health Education Division, Counselor A.B., A.M., Stanford University

Foster, Sandra M. (1964) Business B.S., M.S., Western Illinois Univ

Friesen, John B., Jr. (1963) English A.B., M.A., U. of California, Berkeley Fryckman, Robert C. (1969)
Dean of Men and Student Activities
B.A., Baptist Bible College
M.A., University of Colorado

Gilman, Frederick L. (1956) Assistant Dean of Instruction B.S., University of Calif., Berkeley M.A., San Francisco State College

Giuntoli, Mervin A. (1966) Biology, Zoology B.A., M.A., San Jose State College

Glessing, Robert J. (1968) Journalism, English B.A., Marquette University M.A., University of Calif., Berkeley

Goss, William A. (1949)
President
A.B., Univ. of California, Los Angeles
M.A., Univ. of California, Berkeley

Gray, Gordon M. (1958)
Chairman, Physical Education
Division and Director of Athletics
B.A., Univ. of California,
Santa Barbara
M.A., San Francisco State College

Hancock, John C. (1968) Music A.B., San Francisco State College M.A., San Jose State Colelge

Hancock, Michael P. (1969)
Police Science, Sociology
B.A., San Francisco State College
M.S.W., San Francisco State College

Harris, Donald C. (1969) Spanish B.A., Howard University M.A., San Francisco State College

Heidsiek, Richard C. (1968) Art B. of Art Ed., M.F.A., California College of Arts and Crafts Hein, Mark W. (1969) English, History B.A., San Francisco State College M.A., Claremont Graduate School

Hergert, Loretta J. (1969) Physical Education B.A., M.A., University of Colorado PhD., University of Utah

Hoffman, Craig R. (1965) English B.A., University of Calif., Berkeley M.A., San Francisco State College

Holle, Frederic A. (1968) Art B.A., M.A., San Diego State College

Hurley, Gale E. (1968)
Business
A.B., San Jose State College
M.A., San Francisco State College

lenni, Philip C. (1969) Music B.S., M.S., Juilliard School of Music

Jacques, Lois S. (1967) Physical Education B.A., University of Nevada M.A., San Jose State College

Jost, Erwin (1955) English, German

A.B., San Jose State College A.M., Stanford University

Katz, Arthur J. (1968) Business, Accounting B.B.A., Adelphi College, New York M.B.A., Univ. of California, Berkeley

Kennedy, Kenneth D. (1967)
Political Science, History
A.A., College of San Mateo
B.A., M.A., San Francisco State
College

Kenney, William C. (1968) English A.A., College of San Mateo B.A., Stanford University M.A., San Jose State College

Keys, Elijah James (1969) English, Counselor B.S., University of Minnesota M.A., San Francisco State College

Kilpack, Bennett B. (1969) Sociology, Education B.S., M.S., Southern Oregon College

Kirby, Sheldon E. (1969) Art B.A., Pomona College M.F.A., Claremont Graduate School

Klein, Daniel J. (1968) Psychology A.B., Colby College Ph.D., University of Texas

Krueger, John H. (1968)
Chairman, Fine Arts Division
B.S.M.E., University of Cincinnati
B.M., Cincinnati Conservatory of
Music
M.A., Colorado College

Kurk, Karl O. (1970) Food and Lodging Technology

La Berge, Robert R. (1969) Police Science B.A., M.A., San Jose State College

Lepisto, Martin M. (1968) Drama B.S., Midland College M.A., Northwestern University

Loughrey, James R. (1963)
Mathematics
B.S., St. Michael's College, Vermont
M.S., Rensselaer Polytechnic Inst.

Machnick, Joseph, Jr. (1969) Astronomy B.A., Univ. of Calif., L. A. M.S., University of Santa Clara Mahood, Leland H. (1964) Associate Dean of Instruction B.A., Whittier College B.D., University of Chicago

Mangis, George A. (1946) Dean of Instruction B.S., Univ. of Calif., Los Angeles M.A., San Francisco State College

Manning, Patrick (1968) Social Science, History B.S., California Inst. of Technology M.S., Ph.D., Univ. of Wisconsin

Marchi, Joseph J. (1968)
Counseling
B.A., San Francisco State College
M.A., Columbia University Teachers
College

Messner, Gerald M. (1964) English A.B., Stanford University M.A., Los Angeles State College

Montague, Thomas L. (1970) Police Science B.A., San Francisco State College

Murashige, Kate H. (1968) Chemistry B.A., Washington University Ph.D., Univ. of Calif., Los Angeles

Nicolopulos, Samuel J. (1968) Physical Education A A , College of San Mateo B A , San Jose State College M A , Stanford University

Nissen, Robert M. (1969) Art A.B., San Jose State College M.A., Stanford University

Norman, Timothy H. (1968) Mathematics B.A., St. Procopius College M.S., University of Notre Dame Pagels, Guerd G. (1956) English

A.B., Western Washington College A.M., Ed.D., Stanford University

Pallister, Patricia (1968) Dean of Women, Counselor B.A., Mich. State Univ. M.A., Univ. of Maryland

Paresa, Robert F. (1969) Police Science A. A., College of San Mateo B.S., San Jose State College

Payne, Eileen M. (1969)
Home Economics, Psychology,
Education
B.A., Univ. of Calif., Berkeley
M.A., San Francisco State College

Pierce, Catherine S. (1969) History A.B., Marymount College M.A., Purdue University

Plunkett, Charles R. (1965)
English
A.B., Stanford University
M.A., San Francisco State College

Pratt, Melvyn E., Jr. (1954) Chairman, Social Sciences Division A.B., Stanford University B.D., Yale University Ph.D., Stanford University

Ramey, Stanley M. (1969) Military Science B.S., U.S. Military Academy M.B.A., Stanford University

Ramos, Richard M. (1967) Spanish A.A., Yuba Junior College

A.A., Yuba Junior College B.A., University of Pacific M.A., Stanford University

Raney, Donald C. (1953)
Chairman, Mathematics and
Physical Sciences; Chemistry
A.B., San Jose State College
A.M., Stanford University

Reed, Cheryl J. (1968) Physical Education B.A., San Jose State College M.A., San Francisco State College

Reller, Theodore L., Jr. (1968)
Political Science and History
A.B., M.A., Univ. of Calif., Berkeley

Simmons, Gordon T. (1964) Anatomy, Biology B.S., D.V.M., Univ. of Calif., Davis

Siringer, Norman W. (1969) English B.A., M.A., Western Reserve Univ.

Sitton, Carl V. (1968) Music B.Mus., Texas Wesleyan College M.A., Mills College

Skinner, Byron R. (1968) Social Sciences, History B.A., Western Michigan University M.A., Illinois State Teachers College

Smart, Francis A. (1954) Business Administration B.S., Univ. of California, Berkeley LL.B., Hastings College of Law

Smith, Kurtwood L. (1969) Drama A.A., College of San Mateo B.A., San Jose State College M.F.A., Stanford University

Smith, Pamela D. (1969) English A.B., M.A., Univ. of Calif., Berkeley

Spangenberg, Ruth B. (1968) Psychology, Counselor B.A., Pomona College M.A., Stanford University

Stegner, Paul F. (1970)
Psychology
B.S., Pennsylvania State University
M.A., Fresno State College

Stiff, Robert (1961)

College

College

Chairman, English and Foreign Languages Division

A.B., M.A., San Francisco State College

Stoney, James M. (1959) Bacteriology, Biology B.A., M.A., San Francisco State

Stringari, Lawrence T. (1969) Psychology B.A., M.A., San Francisco State

Sweatt, Maurice L. (1966) Biology A.B., Univ. of California, Berkeley M.S., University of Oregon

Swenson, Jack S. (1964)
English
B.A., University of Minnesota
M.A., San Francisco State College

Szabo, Rosalee (1969)
English
B.S., Cornell University
M.A., University of Rochester, N.Y.

Tovissi, Joseph A. (1965)
Mathematics and Counselor
B.S., Kent State University
A.M., Stanford University
M.S., Purdue University

Turner, Ella E. (1969)
Asst. Head, Student Development
Program
B.S., Southern University, Louisiana
M.S., University of Nebraska

Upton, James M. (1968) Mathematics and Philosophy A.B., A.M., Gonzaga University M.S., Seattle University

Vial, Silvano A. (1964) Physical Education B.S., University of Idaho A.M., Stanford University Walker, Robert C. (1968) Food Technology, Supervising Teacher B.S., Cornell University

Walsh, William J. (1956)
Dean of Students
A.A., Glendale College
A.B., Univ. of California, Berkeley
M.S., Northwestern University

Wesseling, Diane (1968)
English
A.B., Douglass College
M.A., Univ. of California, Berkeley

Westover, Ross W. (1962) Chemistry B.S., Brigham Young University M.S., Syracuse University

Whitmore, Amy D. (1968) English A.B., Southern University M.A., North Carolina College

Workman, Gilbert B. (1968) History B.A., Yale University M.A., San Jose State College

Wortz, Eleanor T. (1964) Business B.S., Catawba College M.A., San Jose State College

Yaeger, Louis E. (1955)
Chairman, Business Division;
Counselor
B.S., Southwestern Institute of
Technology of Oklahoma
M.S., Univ. of Southern California

Young, Frank C. (1969) Philosophy B.A., University of Florida M.A., San Francisco State College

Zingales, Thomas J. (1964) French, German B.A., University of Notre Dame A.M., Stanford University

# General Information

# The College

Cañada College is a new community college within San Mateo Junior College District. It enrolls students from the entire District, although its chief service area is the Sequoia Union High School District.

Cañada College (and its unidentical twin, Skyline College) originated from the realization in 1963 that the College of San Mateo would reach its designed capacity by 1966. In another sense, its destiny was determined when Sequoia Union High School District annexed to the Junior College District in 1961, at which point the master plan of the District was amended to provide for a college in the south part of San Mateo County.

The magnificent 131-acre site for Canada College was selected in 1962. The site, which is partly in Redwood City and partly in the Town of Woodside was chosen because of its location along the Junipero Serra Freeway and because it ideally serves all parts of the south County.

Financing for Cañada College was provided by a bond issue for \$12,800,000 in March, 1964. Intensive educational planning and architectural design proceeded through 1964-65. Grading of the site began in 1966, and a construction contract was awarded in April, 1967. The campus in its present stage represents an investment of \$13 million, and provides 241,000 square feet of usable space.

The College takes its name from Cañada Road, the highway which borders the site on the west. The Spanish word "cañada" means long valley.

#### The District

San Mateo Junior College first offered classes in 1922 at the Baldwin Campus in downtown San Mateo—with an initial enrollment of 35.

At first the District included only San Mateo Union High School District, but it grew to include Jefferson Union High School District and Half Moon Bay (now Cabrillo Unified School District) in 1937, Sequoia Union High School District in 1961, and South San Francisco Unified School District in 1966. At present the only portion of San Mateo County outside the District is the La Honda-Pescadero Unified School District.

Enrollment and offerings of the College expanded slowly in the first 25 years, with a maximum of 1650 students. Classes were offered at first in central San Mateo, at the Baldwin Campus and in Central Park, and after 1939 were also given on the Delaware Avenue Campus.

World War II veterans returned after 1947 in such large numbers as to require a major expansion of the College. At this time Coyote Point facilities were acquired to supplement other locations and for a time a "three-campus era" resulted.

The Junior College became College of San Mateo in 1954 and along with the change in name came a transformation of the role of the institution to serve the rapidly expanding Peninsula. Awareness of the need for long-range development led to the adoption of a master plan in 1957 and the passage of a bond issue which funded a campus in west San Mateo for College of San Mateo.

The events of 1963-64 which created Cañada and Skyline Colleges also led to the acquisition of a fourth site along the coast south of Half Moon Bay. The District is now in a position to satisfy the community college needs of its residents for at least the remainder of the 20th Century.

## Philosophy of the College

Cañada College holds that these beliefs and concepts are vital to the fulfillment of our objectives:

- (1) We believe that the individual possesses dignity, and we encourage him to recognize his worth and to make his own unique contributions to our society.
- (2) We believe that we must exert educational leadership in identifying and serving the educational needs of the community.
- (3) We recognize that each discipline has its own integrity and that the College has a responsibility to achieve a balance between specialization and generalization in the organizing and presenting of subject matter.

- (4) We think it is important to include all members of the College community in the shaping of class content, curriculum and College policy.
- (5) We recognize that students come to us with a variety of expectations and that they possess different degrees and kinds of intelligence and skills.
- (6) We believe the heart of the College to be the student and believe that close student-faculty relationships contribute to learning and to the kind of atmosphere in which learning can be reciprocal.

# Objectives of the College

Specifically, Cañada College provides its students with:

- Courses which will enable them to complete the first two years of college work, in order to satisfy the lower-division requirements of fouryear institutions.
- (2) Training in and improvement of skills which will qualify them for employment in business and industry and in careers with public service agencies.
- (3) Counseling, tutoring and special programs which enable them to recognize and to deal with their special abilities, interests and needs so that they can make independent and mature decisions.
- (4) Classes and resource facilities in which all persons in the community may broaden their educational and vocational potential and enhance their cultural development.

In all of these courses and programs, we believe that we have the obligation to help each student:

To develop useful skills,

To think critically,

- To learn how to learn, which, in addition to seeking answers, involves asking thoughtful questions,
- To be responsive to persons and things in his immediate environment and to increase his skills in human relationships,

To appreciate and enjoy our pluralistic cultural heritage, and

To re-examine constantly, in the light of increased knowledge and changing circumstances, his own and society's basic assumptions and objectives.

To assist each student to profit most from his education, the College helps him to explore his aptitudes, to choose his lifework and to plan an educational program which will prepare him for that work. It offers this assistance through

a formal program of guidance and counseling, and through informal studentteacher relationships, which are among the most distinctive and valuable of its services. The College recognizes the educational value of the organized student activities and encourages student and faculty participation in these activities.

Cañada College is a part of a colorful community which, situated as it is, close to San Francisco and to several fine colleges and universities, enjoys many cultural advantages. Many graduates will transfer to the University of California, Stanford University and the nearby state colleges. The needs of these students who transfer to upper division work are carefully provided for in the curriculum. Many Cañada College students, having terminated their formal education with the Associate in Arts degree, will find employment in business and industry.

# Role of the Faculty and Students

Cañada College is governed by policies approved by the Board of Trustees of San Mateo Junior College District. These policies encourage maximum autonomy and therefore delegate many responsibilities to the individual colleges within the District.

Cañada College seeks the counsel of its faculty and students through a system of permanent committees and through informal or short-term bodies. The regular committees are organized under the Faculty Senate, which operates through a Governing Council (elected by the teaching faculty) and through the following committees: Instruction, Faculty-Student Relations, Professional Personnel and Salary. Student members of the first two of the listed committees are appointed by the Associated Students Council.

# Accreditation

Cañada College is approved by the Office of the Chancellor of the California Community Colleges and by the Veterans Administration, and is fully accredited by the Western Association of Schools and Colleges, the recognized local agency which is affiliated with the Federation of Regional Accrediting Commissions of Higher Education.

# **Evening College**

Cañada Evening College offers a wide range of classes including lowerdivision collegiate work leading to the completion of an Associate in Arts degree and/or transfer to a four-year institution, and classes designed to meet the specific needs and interests of adults.

An Evening College catalog and schedule may be obtained from the College upon request. Copies are also available at public libararies shortly before the beginning of each semester.

#### Summer Session

San Mateo Junior College District offers summer sessions at colleges within the District. Further information may be obtained by calling Cañada's Evening College office.

Summer session also affords opportunity for superior high school students, after completing their junior year, to take a number of selected college courses. Further information may be obtained by contacting the high school counselor.

## College Library

With a dramatic reading room which affords a panoramic view toward the wooded slopes of Skyline ridge, the Library provides students with excellent facilities for the use of books, periodicals, and audio-visual materials.

The Library is housed in the westernmost section of the lower two floors of the Campus Center. The lower floor includes a stack area for books, a reading room, the main circulation desk, periodical and reference areas, a typing room, and library offices and work areas. On the second floor are the language laboratory and listening rooms, a conference room, and audio-visual circulation and service areas.

No effort has been spared to make the Libraray an inviting and easily accessible place for study, research and browsing. There are 90 carrels for individual study and some 150 seats at tables. The present collections comprise over 20,000 carefully selected volumes, some 400 periodicals and over 1500 reels of microfilm. In the audio room there are 86 stations for listening to music, to language and to other recordings. The language laboratory has 12 stations for recording and for listening.

Cañada College students have the privilege of using all library facilities of the College of San Mateo with its 80,000 volumes and large collections of microfilms, phonodiscs and tapes; they may also use the facilities of Skyline College.

### Parking

Parking for students is provided on the campus in clearly designated areas. Certain parking places are reserved for handicapped students, for visitors who have guest permits, and for faculty and staff who hold permanent parking permits.

# **Admissions Information**

# High School Graduates

Normally, graduation from high school or other schools of equivalent rank is a prerequisite for admission.

Persons over 18 years of age who are legal residents of San Mateo Junior College District may be admitted to classes even though they are not high school graduates if, in the opinion of the President, they can profit from the experience.

(Any person who is not a legal resident of California or who is a legal resident of another junior college district in California, please see Residence Requirements for Admission.)

## Transfer From Four-Year Institutions

Transfer students from four-year institutions are welcome. Academic records will be evaluated by the Registrar, and credit allowed for lower division work completed in other accredited institutions. At the time of evaluation, the Academic Standards Policy of Cañada College will be applied. (See Academic Standards.)

# Transfers From Other Junior Colleges

Students who have previously attended another junior college and are in good standing are eligible to enroll at Cañada College subject to residence requirements. Students who have been disqualified by another junior college will not be admitted in the semester immediately following their attendance at that junior college. After one semester's absence, such students may be admitted, subject to the Academic Standards Policy.

# Veterans and Veterans' Dependents

Cañada College is listed by the Veterans Administration as qualified to receive students under Chapter 34 (veterans), Chapter 35 (veterans' dependents) and Chapter 31 (rehabilitation). All students, except those under Chapter 31, buy their own books and supplies. Those interested in attending Cañada College under any of these chapters should contact the Veterans Administration Office at 49 Fourth Street in San Francisco or 590 Hamilton Street in

Redwood City to determine eligibility for benefits. After eligibility is determined, the veteran should bring his Certificate of Eligibility and receipt of registration to the Registrar's Office for processing.

Veterans will receive six units of credit for Health Education, First Aid and Physical Education upon presentation of discharge papers showing honorable discharge and active service of one year or more in the United States armed forces. They may receive additional credit for work satisfactorily completed under the training program of the armed forces upon presentation of proof of such work. These units will be posted to the student's record at the time of graduation.

Students in the six-month Reserve training programs are not eligible for this credit. This is in accordance with the recommendations of The American Council on Education, issued September, 1957.

The state of California provides a program for children of veterans who are deceased or disabled from service-connected causes. Application should be made to the California Department of Veterans Affairs at 350 McAllister Street in San Francisco.

#### Adult Students

All regular day or credit classes are open to adults who wish to attend. Adults are expected to assume the obligations and responsibilities of regular junior college students, but those 21 years of age or over are exempted from Physical Education requirements. For the Evening College classes, see the Evening College catalog.

## Special Students (One or Two Courses Only)

A student taking one or two courses only is designated "Special." Special students must submit applications during filing dates but are not required to take the placement test or submit transcripts. Special students planning to enroll in a course in English are required to take the placement test.

Counseling is available to special students upon request

### Foreign Students

Cañada College offers a well-developed program for students from other countries. The college provides a counselor with specialized experience to assist them with personal and academic problems, and a Community Interna-

tional Students Committee offers excursions and programs to acquaint them with other aspects of American life.

Applicants from outside the United States must:

- Have completed the equivalent of an American high school education with satisfactory grades.
- Demonstrate sufficient command of English to profit from instruction at the college.
- Present evidence that they have the necessary funds to take care of all living expenses while attending Cañada College.

#### Transfer Credit

Credit will be allowed for lower-division work done in other accredited institutions. All work presented will be evaluated by the registrar.

# Residence Requirements for Admission

The right to attend any one public junior college in California is, in addition to the academic requirements, conditioned by certain residence qualifications.

The legal residence of any unmarried minor student is that of the father or mother, or court-appointed guardian.

An applicant who is a resident of the San Mateo Junior College District needs only to declare his residence and complete admission requirements.

An applicant who is a resident in a part of California not included in a district which maintains junior college classes may attend Cañada College. A permit signed by the County Superintendent of Schools of the county of residence will be obtained by the Registrar.

An applicant who is a legal resident of another junior college district applying for admission as a day student must be a graduate of a high school or be 21 years of age or older, and must submit a written permit from the superintendent of his district of residence granting him permission to enroll in Cañada College.

An applicant whose legal residence is in a state other than California must be a graduate of a high school or be 21 years of age or older, and have an academic record or test scores which indicate a potential for success. Such students will be charged a non-resident fee.

### Tuition (Non-Resident Fee)

No tuition is charged to legal residents of San Mateo Junior College District or to students from other parts of California who qualify for admission.

Out-of-state residents pay a non-resident fee of \$420 for the academic year 1970-71. This fee is payable at the time of registration at the rate of \$210 per semester or \$14 per unit. Residence status will be determined by the Registrar. Detailed regulatons governing non-resident fee and admission requirements will be distributed to students who apply for admission.

#### Costs to Students

While there is no tuition at Cañada College for students whose legal residence is in the San Mateo Junior College District, there are living and incidental costs which should be anticipated. These, together with their normal expectable amounts, will include:

Books and supplies	\$50 per semester
Student activity card	\$5 per semester
Room and board	\$100-\$140 per month
Transportation	\$20 per month
Personal expenses (laundry, recreation, medical)	\$30 per month

# Choice of College

Residents of the District may elect to attend Cañada College, College of San Mateo or Skyline College. In the event the capacity of any college is reached, students will be diverted to one of the other two colleges. Major course of study and date of application will be taken into consideration if such diversion becomes necessary.

# Application for Admission

(See 1970-71 Calendar for application filing dates.)

Prospective students applying for admission to Canada College are required to:

 File a written application for admission upon forms supplied by the College.

- 2. Submit two complete transcripts of records from the high school of graduation, or last attended, and each college attended. (Veterans should file similar copies of their military record and of their special training courses so that they may obtain proper college credit.)
- 3. Take placement examination prior to the time of registration.

# Placement Test Required at Entrance

A placement test (see Calendar for dates) is required of all entering students and is used for the purpose of helping them determine the courses for which they may enroll.

# Registration

# Counseling Appointments

Upon completion of admission requirements, all regular students will meet individually with a counselor for assistance in program planning prior to registration. (See Calendar at the front of the catalog.) Regular students register only after receiving program approval from a counselor. Late registration after the first day of instruction will not ordinarily be permitted.

#### Unit Load Limitations

A normal class load will be 15 units plus Physical Education. No student should take more than 17½ units without the special approval of his counselor.

Students working full time or those in the military service should limit their programs to 10 or fewer units. Combinations of work and school should be carefully discussed with the counselor.

Auditing is not permitted in any course offered for credit.

# Physical Education Requirements

All regular students are required to take Physical Education, in accordance with the State Education Code, except those who are excused for those reasons indicated below. Men and women must devote two hours per week to Physical Education throughout the period of attendance as undergraduates. Failure to register in and regularly attend Physical Education will result in cancellation of registration. The following students may be excused from the P. E. requirement:

- 1. Junior college or four-year college graduates.
- 2. Students who are 21 years of age or older.
- 3. Students taking eight units or less in Day College.
- 4. Veterans, exclusive of six-month Reserve trainees.
- 5. Students excused for medical reasons (requires physician's statement on file in the Physical Education division office).

Every student who is exempt from Physical Education must obtain a clearance signature from the Physical Education division on his study card before completing registration.

# **Program Changes**

A program once entered by signing up for any given set of classes may not be changed in any way, unless written permission to do so is granted a student by his counselor, and the student completes the prescribed change-ofprogram procedure.

Changes of programs will be permitted only for students who have valid reasons for such requests.

A student may not add a new class after the fifth day of the semester.

A student may drop a course, whether passing or failing, at any time through the 10th calendar day of a semester without incurring a penalty of a semester grade of "F"—failed. After this date, if a student drops a course in which he is failing, he will receive a semester grade of "F." No student will be permitted to drop a course after the 11th week of a semester without receiving a final grade of "F." In cases of serious verified illness, induction or other emergency, students should request that the situation be reviewed by their counselor and the Dean of Men or Dean of Women to prevent unjust application of this regulation.

# Grades and Scholarship

#### Units of Work and Credit

A "unit" represents one hour weekly, during one semester, in lecture or recitation with the necessary preparation time, or three hours in laboratory or other exercises not requiring home work for preparation.

A normal schedule of 15 college units presupposes that the average student will devote approxmiately 45 hours per week to class attendance and preparation.

#### Grades and Grade Points

A number of major changes in the Cañada College policy on grades are under study. If a revision is approved for 1970-71 students will be informed.

Once a subject has been made a part of a student's program of attendance, his record for the subject will be reported to the Registrar by one of the following symbols:

A—Excellent		4 grade points per unit
B—Above average		3 grade points per unit
C—Average		2 grade points per unit
D—Passing; below	average	1 grade point per unit
F—Failed		O grade points per unit
Inc—Incomplete		0 grade points per unit
CR—Credit	Not considered in dete	ermining grade point average
NCR—No credit	Not considered in dete	rmining grade point average
W_Withdrawn	Not considered in dete	ermining grade point average

A grade of "Incomplete" may be given only if the student is unable to take the final examination or complete a major course assignment due to illness or extreme personal emergency. In this case, it is the student's obligation to give the instructor notification of the reason for his inability to complete the course requirements and to make arrangements for completion of the work. A grade of "Incomplete" is computed the same as a grade of "F" until the

deficiency is removed. The deficiency must be removed by the end of the next semester of attendance. Additional time may be provided upon approval of the instructor and the registrar. The grade from a repeated course will not erase the "Incomplete."

A grade of "W," meaning withdrawn from class, indicates that the subject so marked has been cancelled from the student's study list and is, therefore, not to be awarded a final grade. No credit can be counted in subjects for which a "W" is recorded, nor is there any penalty involved.

A student may repeat any course in which he has received a final grade below "C." He may not, however, repeat such courses more than twice except with the approval of the Appeals Committee and his counselor. In addition, however, he may repeat for credit, regardless of grade earned, those courses so designated in the catalog.

Upon satisfactory completion of a repeated course, the student must petition the Registrar to remove the units attempted, units completed and grade points for the previous course from the cumulative totals on his permanent record. Upon approval of the petition, all units and grades attempted or earned will appear on the permanent record, but only the last grade will be included in determining academic standing and grade point average, and only those units will be counted toward graduation.

The evaluation of transfer credit from another institution may also be adjusted in this manner upon receipt of adequate documentation proving the parallel content of the transfer course and the Cañada course.

Petitions which are not approved will be reviewed by the Committee on Instruction at the request of the student.

# Grade Reports

On the college level, a student is held responsible for his own academic progress. Grade reports are sent directly to each student at mid-semester. Following final examinations at the end of the semester, the student is sent the report of his final grades, which serve as the basis for computing the student's standing.

## Scholastic Honors

A Dean's List of students who achieve academic honors is published at the end of each semester containing the name of each student who has completed 12 units or more of work during that semester at Canada College with a gradepoint average of 3.0 ("B") or above.

Academic honors are awarded to students at graduation who have attained a 3.0 ("B") cumulative grade-point average.

Cañada College is affiliated with the State Junior College Honorary Scholarship Society, Alpha Gamma Sigma.

## Transcripts

Official transcripts will be sent to employers, colleges and other institutions upon written request by the student. Only courses taken at Cañada College will appear on the transcript. Transcripts from high schools and other colleges will not be forwarded. Two transcripts will be sent without charge. Subsequent copies will be sent for one dollar per copy.

#### Personal Recommendations

Personal recommendations should be a part of each student's permanent record file. Students should request these recommendations from their instructor; recommendation forms are available from the Office of Admissions and Registration.

Personal recommendations are used to provide information on students' personal characteristics to prospective employers or colleges to which students may transfer.

# Academic Standards

# Grade-Point Deficiency

A number of major changes in Canada College probation and disqualification standards are under study. If a revision for the 1970-71 school year is approved, students will be informed.

The Academic Standards Policy of Cañada College is based on a cumulative grade-point average of "C." the minimum standard of progress toward graduation or transfer.

All units and grade points are on a cumulative basis. At all times, a student must maintain a cumulative grade-point total that is double the total units undertaken (C average). (Example: If a student undertakes 12½ units in one semester and 15½ in a second semester, his cumulative units are 28, requiring a grade-point total of 56.)

Any grade-point total less than twice the attempted units is regarded as deficient.

During an initial experimental period, the Cañada College credit-no credit courses will not affect a student's grade-point deficiency, disqualification or dismissal.

## Disqualification

A student will be disqualified, if at any time, his deficiency amounts to 12 or more grade points. A disqualified student must ordinarily remain out of Cañada College day and evening classes for one semester.

A disqualified student may present a written appeal to the Faculty-Student Appeals Committee requesting immediate reinstatement if his disqualification has resulted from unusual, emergency circumstances.

# Dismissal

A previously disqualified student who incurs a deficiency in any subsequent semester will be dismissed and ordinarily will not be permitted to return to Cañada College for day or evening classes. However, if a student has not increased his total deficiency after disqualification, he may petition the Faculty-Student Appeals Committee for permission to continue in college.

Immediate readmission of a dismissed student is not considered. Only after the lapse of at least two semesters may a dismissed student petition for readmission; then consideration is given only on the basis of evidence of academic work or other constructive achievement during the student's absence from college.

#### Transfer Students

Students who have been placed on probation or disqualified by another junior college will not be admitted in the semester immediately following their attendance at that junior college. Such students may be admitted, subject to the Academic Standards Policy of Cañada College, after one semester's absence. This Academic Standards Policy will be applied to transfer students from other junior colleges on admission. These students must complete all admission requirements.

The Academic Standards Policy of Cañada College will be applied to transfer students from other colleges and universities on admission. These students must complete all admission requirements.

# Student Obligations

#### Conduct

The principle of personal honor is the basis for student conduct. The honor system rests on the sincere belief that the college student is mature and self-respecting, and can be relied upon to act as a responsible and ethical member of society. Each individual has the obligation of knowing and upholding College rules. These rules are given in the **Student Guide** which is included in the packets supplied to each student at the time of registration.

Social or other functions using the name of the College are thereby identified as College functions and become subject to the same high standards of conduct and of supervision, whether conducted on or off the campus.

Social or other functions for which no patrons are listed from the membership of the faculty are not school functions. Further, no off-campus organizations may use the College name or imply College sponsorship in any publicity or other information.

## Secret Organizations

Sororities and fraternities and other secret organizations are banned under the Education Code of the State of California.

### **Fines**

Fines are assessed for failure to comply promptly with library and other ampus regulations, and students are required to pay for careless or unnecessary damage to College property. Students who are delinquent in their financial obligations to the College may not receive grades, reports or other records of heir work until such delinquencies have been adjusted to the satisfaction of he College authorities.

# Attendance Regulations

Regular attendance in class and laboratory sessions is an obligation assumed

by every student at the time of his registration. By being absent from class, the student misses both the content of the particular session and the continuity of the course as developed in a single period of work. When a student's failure to attend class places his success in jeopardy, the instructor may drop the student from the class.

The following regulations regarding attendance have been approved by the Board of Trustees and will be enforced:

A student may be dropped from class whenever his total hours of absence from class equal twice the number of hours the class meets in one week. Absence means non-attendance, and includes non-attendance for illness, participation in school-sponsored activities or personal emergency.

Any student dropped from any class because of this regulation may appeal in writing to the Faculty-Student Appeals Committee within five school calendar days of such drop if he feels there are extenuating circumstances beyond his control which justify his remaining in class. A student making such an appeal may, with the permission of the instructor, remain in class until the decision of the Faculty-Student Appeals Committee is reached. The Faculty-Student Appeals Committee will make a recommendation to the instructor after consiedring such an appeal. In all cases the decision of the instructor is final.

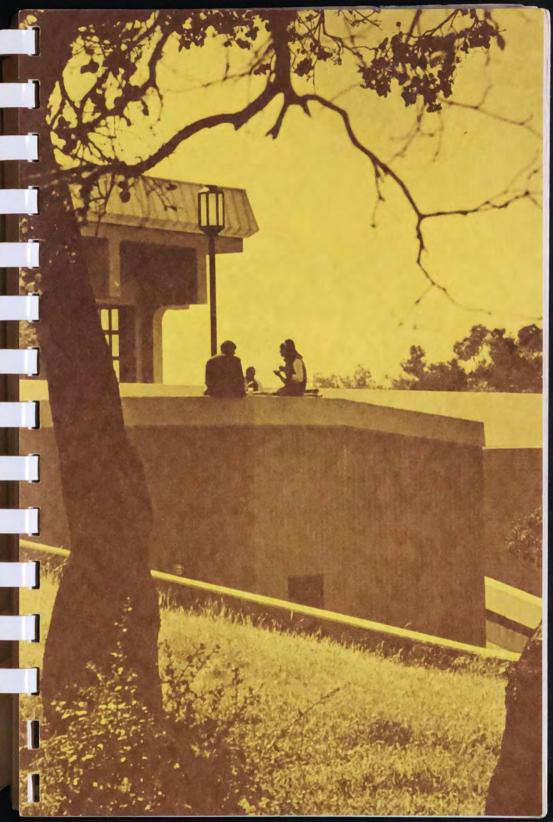
# Emergency Leave of Absence

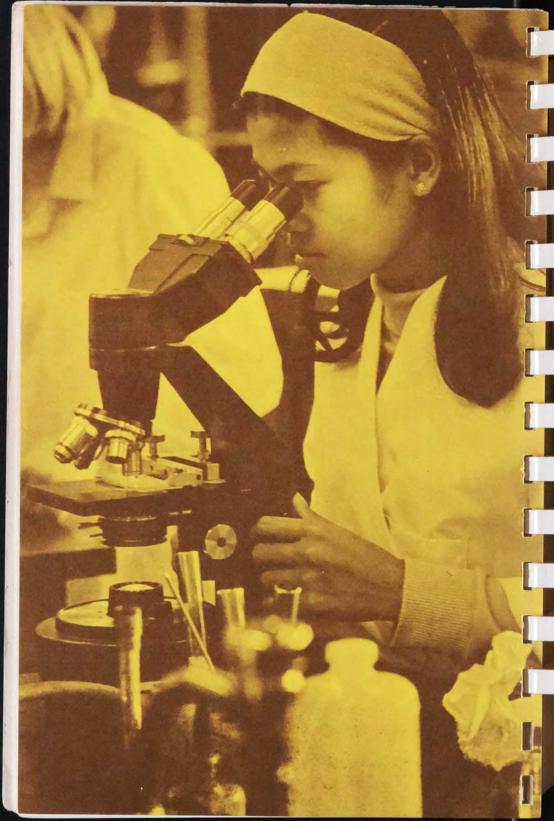
Absences for medical reasons of less than one week need not be reported to the College.

Students who will be absent from any class or classes for one week or longer for any health reason are required to request emergency leave from the Student Health Center. Students should report to the Health Center for a clearance before returning to classes.

Students who will be absent from any class or classes for one week or longer for other personal emergencies are required to request an emergency leave from the Dean of Women or Dean of Men.

If medical or personal emergency requires absence of as much as two weeks, it will be necessary for the student to consult with his counselor before returning to classes.





# Withdrawal From College

A number of major changes in the Cañada College regulation concerning withdrawal are under study. If a revision for the 1970-71 school year is approved, students will be informed during fall registration.

A student finding it necessary to withdraw at any time after registration must obtain a petition for withdrawal from his counselor. Special students (taking one or two courses only) should report to the Dean of Men or Dean of Women for a withdrawal petition. The completed form must be returned within five college days to the Dean of Men or Dean of Women. Failure to comply with the procedure may result in penalty grades of "F."

At any time through the 10th College calendar day a student may withdraw, whether passing or failing in courses, without incurring penalty grades of "F." A student who withdraws after the deadline will receive the penalty "F" for any course in which he is failing.

After the 10th College calendar day, a student who drops classes with his counselor's approval will be given a grade of "W" if passing the course and a grade of "F" if failing the course.

After the 11th week of the semester no student may withdraw without receiving a final grade of "F." In cases of serious verified illness, military induction or other emergency, students should request that the situation be reviewed by their counselor and the Dean of Men or Dean of Women to prevent unjust application of this regulation.

## Absence Without Leave

To avoid possible academic penalty, a student who leaves College at any time during a semester must complete a formal withdrawal within a period of one week.

# Student Personnel Services

# Program Planning, Counseling and Psychological Services

One of the primary responsibilities of Canada College is to assist each student in the effective utilization of his capabilities. To accomplish this, the college provides professional counselors to assist students in clarifying or establishing appropriate educational and vocational goals, or to work out problems of a social or personal nature

These counselors are available by appointment during the registration period and throughout the academic year to consult with students. They assist students in planning programs of study, approve the final program for each semester and are consulted about program changes. The counselor's function, however, is an advisory one. Ultimately the responsibility for knowing program requirements and enrolling in proper courses rests with the student.

Students are encouraged to bring to the attention of their counselor employment, financial or other personal problems which affect their success in college

The office of the Dean of Students will schedule appointments for students who cannot meet with their counselors during scheduled office hours.

When a student receives an academic deficiency notice indicating unsatisfactory work, he is to see his counselor concerning reasons for his lack of progress.

All faculty members are an important part of this College's advising program. Students should feel free to approach counselors and other faculty members for information.

Psychological Services are available to all students at the College. Appointments may be made through a counselor, the Office of the Dean of Students or directly by the student with the school psychologist.

# Student Development Program

The Student Development Program was inaugurated by the College in the fall of 1969 to provide supporting services to students who had not been able to participate fully in the educational and cultural experience of the community. The program was designed principally for minority students, although all students are welcome to participate.

The Student Development Center, located in the lower floor of Building 16.

is operated by several full-time faculty members. This staff is prepared to offer intensive academic, vocational and personal counseling, assistance in obtaining scholarships and financial aids, and, in conjunction with community agencies, to secure housing, transportation, employment and other needed assistance.

The Director of the Student Development Program works closely with local high schools to encourage graduating seniors, particularly students of color, to consider furthering their education at Cañada College.

## **Testing**

The Office of the Dean of Students maintains a service in psychological and vocational testing which is available to all registered students. Through this service, students may receive assistance in assessing their aptitudes and interests so that they may better plan their educational and vocational goals. Students may obtain additional information about the testing program in room 206 of the Administration Building.

The Introduction to College course carries transfer credit to state colleges and some universities and is optional for all students. It is strongly urged for students whose counselors recommend it. It offers the following personnel services:

- Further testing services: A thorough explanation and interpretation of
  psychological tests taken at entrance are given each student. Additional
  psychological tests are given to the student to help him appraise his
  aptitudes, interests, personal adjustment and special abilities, and to
  assist him to verify or to make effective educational and vocational
  plans.
- Introduction to College: The course is also designed to acquaint students
  with College facilities, activities, services and requirements; to improve
  study habits and skills, to develop leadership techniques, and to explore
  the world of work in areas which meet their individual interests and
  abilities.

## Health Service

Counseling on health problems is available at the Student Health Center, located in room 212 of the Campus Center.

Report of a recent health examination, given by the student's personal physician, should be turned in to the Health Center at time of registration by all entering students.

First aid is given in cases of injury. The student is then referred to his physician.

# Student Health Insurance Program

The College offers accident and health insurance coverage to its students on a voluntary basis. Most students are over 18 years of age and are no longer covered by their parents' group insurance policies. Additional information and literature can be obtained in the Student Health Center.

## Placement Services

The College maintains a placement office to assist students currently enrolled and in good standing to secure part-time employment. This service is also available to graduating and former students who wish to secure full-time employment.

# Housing

The Dean of Women will assist students in finding housing in the community. All arrangements are made between the owner and the student. Dormitories or College-sponsored housing facilities are not available. Some oportunities exist for students to earn their room and board in private homes.

## Financial Aids

Cañada College participates in federal and state scholarship, loan, grant and work-study programs. In addition, the San Mateo College Foundation administers funds from private sources which are available to students as scholarships and loans. The Associated Students have made a limited loan fund available to those who have completed one semester at the College, have a "C" average or better and have an emergency need.

For detailed information and application for scholarships, students should contact the Dean of Women. For all other financial aids, they should apply to the Financial Aids office.

## Student Activities

There will be an organization known as "The Associated Students of Cañada College" whose purpose will be:

- (1) To promote the general welfare of the students.
- (2) To guarantee equality of opportunity among the students.

- (3) To offer an experience in practice of American democratic government.
- (4) To encourage student participation in planning and direction of student activities as permitted under the Education Code of the State of California and the policies of the Board of Trustees.

During the past two years at Cañada, students have had the unique opportunity of creating a new student government and activity program. Students are urged to visit the Activities Office and participate in the co-curricular program.

With the assistance of faculty advisers, Student Council directs and supervises all activities and sports in which the College is represented. Because the direct financial support for activities comes from purchase of Activity Cards, each student is expected to purchase his card as a part of his registration.

## Student Organizations

In order to secure the most from his college life, a student is encouraged to participate in one or more of the many clubs organized within the Associated Students. Such clubs offer many and diversified opportunities to students for both social and educational contacts. Each club elects its officers and plans its own program for the semester.

## Student Publications

The **Newspaper**, a weekly publication, provides full coverage of activities on campus and offers invaluable experience to journalism students.

The **Student Guide**, an attractive booklet, contains information to incoming students about the rules, staff, student organizations and services of the college together with a complete calendar of events.

The Daily Bulletin, a mimeographed publication, is prepared and distributed by the Activities Office three days a week to announce activities, news events and items of interest to the faculty and students of the College. The deadline for submission of items for publication is 9 a.m. on the preceding day.

## **Athletics**

Cañada College sponsors sports within the Camino Norte Conference for the benefit of those students interested in team competition.

Canada College adheres to the California State Athletic Code and the Camino

Norte Conference eligibility rules and regulations. Final decisions rest with the Camino Norte Conference Commissioner or the California State Athletic Committee.

The following basic principles pertain to all matters of eligibility:

- No student may represent his college in any athletic contest unless he
  is enrolled in and is passing at all times in a minimum of 10 units of
  work in addition to Physical Education (if required) in a regular or
  special course as defined in the curricula of his institution.
- In meeting the units-of-work requirement, subjects which have been failed may be repeated, but those that have been completed with a passing mark may not ordinarily be repeated and included in meeting this requirement.
- In order to be eligible, a student who has previously attended college must have completed, in his last term or semester of attendance, at least 10 units of work in addition to Physical Education (if required).

## Intramural Activities

The Recreation Association, through the Intramural Program, offers a wide variety of coeducational sports. Included in the program are sports days arranged with neighboring colleges and universities. The competition and the friendships brought about on these occasions are of lasting value. For further information concerning this program, please see the Physical Education section of this catalog.

# **Graduation Requirements**

# (Associate in Arts Degree)

Graduation from Canada College with the Associate in Arts degree is based upon the completion of 60 units of lower-division college-level work, including the requirements listed below, the last 12 units of which must be completed at this institution. A student is required to have an overall grade-point average of 2.0 (or a 2.0 grade-point average on his last 60 units of work). At the beginning of the final semester, it is the responsibility of each candidate to file an application for graduation in accordance with directions to be announced by the Registrar.

Here are the requirements in brief, followed by explanatory paragraphs:

SUBJECTS		UNITS
American Institutions—National		3
American Institutions—State and Local		2-3
English		6-8
Health Education and First Aid		2-3
Physical Education		2 40
Major (terminal students only)		20
General Education		6
Electives		12-20
	TOTAL UNITS	60

## American Institutions

This requirement may be satisfied in two different ways: (a) by completing at least one of the listings in group 1 below and one of the listings in group 2, or (b) by completing one of the listings in group 3.

Group 1—American History and Institutions

- a. History 17a-United States History (3 units), or
- b. History 17b—United States History (3 units), or

- c. Political Science 21—American Government (3 units), or
- d. History 4c-American Civilization (4 units), or
- e. History 8a-History of the Americas (3 units), or
- f. Political Science 7—Survey of Constitutional Principles (3 units), or
- g. Social Science 2—Introduction to the Social Sciences (3 units)

## Group 2—California State and Local Government

- a. Political Science 24—California Urban Government (2 units), or
- b. History 22—California History (3 units), or
- c. History 26-20th Century United States (3 units), or
- d. History 31—History and Government of San Mateo County (3 units), or
- e. Social Science 1-Introduction to the Social Sciences (3 units)

## Group 3 - American National and Local Institutions

- a. Political Science 25-National, State and Local Institutions (5 units), or
- b. Political Science 27—American Society (5 units)

### Recommended Sequences:

History 17a—History 22	Western History Emphasis
History 17b—History 26	
History 4c—Political Science 24	
History 8a—History 22	
Social Science 1—Social Science 2	
Political Science 7—Political Science 24	
Political Science 21—Political Science 24 (or Political Science 25 combination)	American Government Emphasis
History 17a and b-Political Science 24	

(History 17a and b are required by some upper-division majors and may also be taken at Cañada with an American Studies emphasis—see American studies.)

# English

The student must complete at least two semester courses in English or Speech (a minimum total of 6 units) not to be taken concurrently. One of these shall be the course to which the student is assigned by the Placement Test (50a, 57, 1a). Other courses shall be selected from the following:

English: 1a, 1b, 21, 23, 24, 25, 26, 27, 28a, 29, 30, 42a-b, 43, 44, 46a-b, 50b, 66.

Speech: 1a, 1b, 10, 30a, 30b, 57a, 57b.

## Health Education and First Aid

All students are required to take Health Education 1. In addition, each student must show that he has completed an acceptable course in First Aid. Most students who have graduated from a public high school in California since 1952 have completed the First Aid requirement.

Veterans may receive credit for these courses by presenting to the Registrar their discharge papers showing honorable discharge and active service of one year or more in the United States armed forces. These units will be posted to the student's record at the time of graduation.

# Physical Education

A minimum of 1/2 unit each semester for two hours of Physical Education taken each week throughout the period of junior college attendance prior to graduation is required under the State Law of California, unless the student is legally exempted therefrom as indicated under "Registration, P.E. Requirement" in this catalog. The student must receive a passing grade for each required semester of P.E.

# Major

A student's major consists of at least 20 semester hours in a specified field of study. A field of study is understood to be a specific subject with such supporting subjects as may properly be used to round out the training in preparation for a major or for some particular occupation. For students planning to transfer to four-year institutions, fulfillment of lower-division requirements for the institution of their choice will be considered a major.

## General Education

General Education is the part of a program of studies which introduces the student to areas of study that develop breadth of outlook and contributes to his balanced development. This training is complementary to, but different in emphasis from, the specialized training he receives for a job, a profession or high scholastic attainment in a particular field of study.

The purpose of the program in General Education is to assist the student in moving toward the following goals:

 Developing a sound moral and spiritual code for his personal and civic life as a responsible citizen in a democracy.

- Developing critical and constructive thinking for problem solving and value discrimination.
- 3. Maintaining good mental and physical health for himself, his family and his community; developing balanced personal and social adjustment, satisfactory home and family life, and vocational adjustment.
- 4. Using basic mechanical, mathematical and communication skills to solve everyday problems, understand ideas of others and express his own ideas effectively.
- 5. Understanding his cultural heritage and his interaction with his biological and physical environment.
- 6. Understanding the creative activity of others and participating to some extent in creative activity of his own.

# The General Education program for the transfer student:

The transfer student should complete the lower-division requirements of the institution to which he plans to transfer. In the case of students who plan to attend one of the California State Colleges, recent legislation permits Cañada and other community colleges to certify that the General Education requirements have been met.

These requirements are as follows:

# CALIFORNIA STATE COLLEGE GENERAL EDUCATION REQUIREMENTS

Cañada College will certify that the general education requirements of the California State Colleges have been met for those students who complete a minimum of 40 units, which include two courses in each of the areas I, II, III and IV listed below:

# I NATURAL SCIENCES

(One cours	e with a lab)				
Life Science					
* Anatomy Anthro Anthro Biol. * Biol. * Biol.	1 1 3 2 10a 10b	*Biol. *Biol. *Bacty. Bacty. *Botany Botany	12 40 1 10 1	Conserv. Forestry Life Sci. * Physiology * Zoology * Zoology	101011
Physical Scie	ences				
Astron.	10	*Geology	1a	* Discortes	01
*Chem.	la	*Geology	16	* Physics	26
*Chem	16	Geology	10	* Physics	46

Meteorology

Phy. Sci.

\* Physics

1

10

2a

Ь

46

4c

9

10

\* Physics

\* Physics

\* Physics

Physics

*	Ind	ica	tes	lab	col	Irse

101

Ta

Chem.

\*Chem.

Geog.

The state of

# II SOCIAL SCIENCES

(Must meet II S	Coverement	and State an	dlocal Gos	vernment re	equirements.)
(Must meet II)	Canvernment	and State an	a Local Gov	verillietii it	equirements./

Anthro.	2	Hist.	4c	Poli. Sci.	21
Anthro.	3	Hist.	5	Poli. Sci.	24
Anthro.	36	Hist.	6a	Poli. Sci.	25
Econ.	la	Hist.	6b	Poli. Sci.	27
Econ.	1b	Hist.	8a	Psych.	la
Econ.	7	Hist.	8b	Psych.	1b
Econ.	10	Hist.	9a	Psych.	4
Econ.	11	Hist.	9b	Psych.	5
Econ.	27	Hist.	17a	Psych.	6
Environ.	2	Hist.	17b	Psych.	10
Geog.	16	Hist.	22	Psych.	33
Geog.	4	Hist.	26	Psych.	40
Geog.	5a	Hist.	33	Sociology	1
Geog.	5b	Poli. Sci.	1	Sociology	2
Geog.	5c	Poli. Sci.	2	Sociology	3
Hist.	4a	Poli. Sci.	3	Soc. Sci.	1
Hist.	4b			Soc. Sci.	2

## III HUMANITIES

# (At least three units in literature or philosophy, plus one other course.)

Art	1a	English	26	Music	23
Art	16	English	27	Music	33
Art	2a	English	28a	Music	34
Art	10	English	29	Music	36
Art	19	English	30	Music	40
Drama	1a	English	42a	Philos.	6a
Drama	16	English	42b	Philos.	6b
Drama	2a	English	43	Philos.	20a
Drama	2b	English	44	Philos.	20b
Drama	10	English	46a	Philos.	20c
Drama	14	English	46b	Philos.	23
Drama	15	History	46	Philos.	24a
Drama	16	History	4a	Philos.	24b
Drama	17	Music	1	Philos.	28
English	23	Music	6	Philos.	35
English	24	Music	11	Soc. Sci.	33
English	25	Music	20	Soc. Sci.	34
		Music	22		

## IV BASIC SUBJECTS

Drama	33	German	2	Math.	31
English	la	German	3	Philos.	7
English	16	German	4	Span.	1
Econ.	2	German	30	Span.	2
French	1	Health Ed.	1	Span.	3
French	2	Math.	10	Span.	4
French	3	Math.	13	Span.	8a
French	4	Math.	16	Span.	86
Franch	8a	Math.	19	Span.	25a
Franch	86	Math.	20	Span.	25b
French	25a	Math.	21	Span.	30
French	25b	Math.	29	Speech	
German	1	Math.	30	Speech	la

### V ELECTIVES

(Not to exceed eight units)

Bus.	35	Bus. Adm. 18	8a	Home Econ.	20a
Bus.	51	Engineering 10	0	Home Econ.	
Bus.	55	Home Econ.	6	Home Econ.	24
Bus.	58	Home Econ.	7		40
Bus.	63	Home Econ. 9			41
Bus.	66	Home Econ. 15	5	Library	la
Bus.	92a/b			Libidiy	1 a

# The General Education program for the terminal student:

- 1. P.E., Health Education and First Aid.
- 2. Two semesters of English (6 units).
- 3. American Institutions, and State and Local Government.
- 4. A total of six units outside his area of concentration, including at least one course in science or mathematics and one course in the humanities or personal growth. In satisfying this six-unit requirement, the student must select courses from the list which follows. Students will confer with counselors to determine courses best suited to meet individual needs.

# GENERAL EDUCATION COURSES IN MATHEMATICS AND SCIENCE FOR THE TERMINAL STUDENT

Anthropology	Biology
*1 Physical Anthropology (3)	* † 10a General Biology (4)
Astronomy	* 10b General Biology (4)
10 Introduction (3)	15 Esstentials of Nutrition (3)

### Botany

†1 General Botany (5) 10 Plants and Man (3)

### Bacteriology

10 Microbes and Man (3)

#### Business

50 Business Arithmetic (2)

51 Business Mathematics (3)

66 General Accounting (4)

or

la Principles of Accounting (4)

## Chemistry

\*10 Survey (3)

10L Survey Lab (1)

†51 Elementary Chemistry (4)

### Conservation

1 Essentials of Conservation (3)

### Data Processing

60 Introduction (3)

### Forestry

1 Introduction (3)

\*Courses suitable for non-science majors.

† Has an accompanying laboratory.

#### Environment

1 Introduction to Physical and Biological Aspects (3)

### Geology

10 Survey of Geology (3) †la General Geology (4)

### Geography

la Physical Geography (3)

### Life Science

\*10 Intro. to Life Sciences (3)

### Mathematics

\*10 Intro. to Mathematical Concepts (3)

11 Elementary Algebra (5)

12 Plane Geometry (5)

### Meteorology

\*1 Elementary (3)

## Physical Science

\*10 Introduction to Physical Science (3)

### Physics

\*10 Introduction to Descriptive Physics (3)

# GENERAL EDUCATION COURSES IN THE HUMANITIES

### AND PERSONAL GROWTH

### Anthropology

2 Cultural (3)

36 Indians of North America (3)

### Art

la History of Art (3)

1b History of Art (3)

2a Form and Composition (3)

3a Form and Color (3)

6a Oil Painting (3)

10a Introduction to the Arts (3)

### Art (Continued)

13a Pencil Drawing (3)

19 Art of Our Times (3)

57a Photography (3)

### Business

35 Personal and Family

Finance (3)

55 Introduction to Business (3)

58 Human Relations (3)

63 Business Economics (3)

## Business (Continued)

- 64 Business Law (3)
- 66 General Accounting (4)
- 92a Beginning or Refresher Typewriting

### **Business** Administration

18a Commercial Law (3)

### Drama

- 10 Intro. to Theatrical Arts (3)
- 13a-b Stage Production (2-2)
- 14a-b Theory and Practice of Acting (2-2)
- 15 Play Production (2)

### Economics

- 1a-b Principles of
  - Economics (3-3)

    Survey of Economic
- Problems (3)
- 27 Problems of Underdeveloped Areas (3)

### English

- 23 Introduction to Poetry (3)
- 24 Modern Drama (3)
- 25 Shakespeare (3)
- 26 Modern Novel (3)
- 27 Contemporary Literature (3)
- 28a Film Study (3)
- 29 Contemporary Writers (1)
- 30 American Lit. (3)
- 42a-b Masterpieces of Classical and Euro. Lit. (3-3)
- 43 Afro-American Lit. (3)
- 44 Mexican-American Lit. (3)
- 46a-b English Lit. (3-3)
- 66 Science Fiction and Fiction of Fantasy (3)

### Geography

- 1b Cultural Geography (3)
- 5a-b-c Environmental Studies (3-3-3)

### Guidance

1 Introduction to College (1)

### History

- 4a-b Western Civ. (3-3)
- 5 History of England (3)
- 6a-b African Civ. (3-3)
- Ba-b History of Amer. (3-3)
- 9a-b Asian Civilization (3-3)
- 22 California History (3)
- 26 20th Century American History (3)
- 33 Afro-Amer. Hist. (3)

### Home Economics

- 6 Consumer Market Place (2)
- 7 Home Management (2)
- 9 Nutrition (2)
- 20a Beg. Clothing (3)
- 22 Textiles (2)
- 24 Fashion Analysis (2)
- 40 Housing & Int. Decor. (3)
- 41 Interior Design (3)

### Journalism

1 Introduction (3)

### Music

- 3 History and Appreciation (3)
- 6 Literature and Appreciation (3)
- 22 Orchestra (1)
- 23 Band (2)
- 33 A Cappella Choir (2)
- 27 Ensemble (Instrumental) (1)
- 35 Oratorio Chorus (1)
- 36 College Chorale (1)
- 37 Musical Production (1-3)

### Philosophy

- 6a General Introduction to Philosophy (3)
- 20c Hist of Philosophy (3)
- 23 Ethics (3)
- 24a-b Introduction to Religion (3-3)

### Political Science

- 2 Comparative Government (3)
- 3 International Relations (3)

## Psychology

la General Psychology (3)

4 Courtship, Marriage and the Family (3)

33 Psychology of Adjustment (3)

10 Psychology in Practice (3)

### Social Science

33 Afro-American Culture (3)

34 Mexican-American Culture (3)

### Sociology

1 Principles of Sociology (3)

2 Social Problems (3)

### Speech

10 Contemporary Dialogue (3)

30a-b Oral Expression and Interpretation (3-3)

# Career Planning

The following programs, designed to assist the student to select subjects to meet vocational or professional goals and fulfill graduation requirements at Cañada College, may be materially changed by the student in conference with a counselor to meet particular objectives.

The student should be aware that course prerequisites, graduation requirements and changes in educational goals may require a longer period than the usual two years. It is necessary that he assume responsibility for his program and make his own decisions with a counselor's assistance. If he elects to transfer to a four-year college or university, he should consult the catalog for the institution of his choice.

Courses are described under "Announcement of Courses" in this catalog; the current schedule of classes gives information regarding time and location of courses offered.

Afro-American	Stuc	lies		52	Chemistry				63
Agriculture .				51	Cooperativ				
American Studie					Criminolog				
Anatomy .					Dental Hy				64
Anthropology					Dentistry				64
Art					Dramatic A				64
Asian Studies					Ecology .				-
Bacteriology .					Economics				64
Biochemistry					Education				64
Biology									4-65
Biophysics .				-	Engineerin				
Botany				200	English .				
Business Admini					Entomology				66
Business .					Environmen				12151
					Ethnic Stud				66
Business Admini					Food & Loa	ging			
Clerk-Typist					Technolo	gy		67	7-68
Credit Manag	emer	nt	61	-62	Foreign Lar				
General Cleric					Forestry				68
Merchandising				62	Genetics				130
Secretarial				58					68
Transportation				63	Geography				68
				05	Geology				68

History			68	Philosophy	*		74
Home Economics .				Physical Education		74	1-75
Humanities			69	Physical Sciences .			75
International Relati	ons		69	Physical Therapy			76
Journalism			69	Physics			76
Law (Pre-Legal)			69	Physiology			76
Liberal Arts			70	Police Science			76
Librarianship .			70	Probation			77
Mathematics .			70	Psychology			77
Medical Illustration	1 .		71	Public Health			77
Medical Science .			71	Radiologic Technology			77
Mexican-American	Studie	25	71	Recreation Education .		,	78
Microbiology .			72	Social Science			78
Military Science (F			72	Social Service			78
Music			73	Social Work			78
Nursery School .			 74	Sociology			78
Nursing			74	State Colleges			50
Nutrition			74	Theatre Arts			78
Occupational Ther	ару		74	Universities			50
Paleontology .			74	Pre-Veterinary Medicine	e .		78
Parasitology			74	Wildlife Conservation			78
Pharmacy			74	Zoology			78
Pre-Optometry .			- /				

# State Colleges, Universities

## Transfer of Credit

A student expecting to transfer to a state college, private college or university can usually complete the first two years of his work at Cañada College. If all requirements have been met, students transferring to higher institutions may graduate in two years of further study. The student may decide to spend more than two years at Cañada College or transfer to a four-year institution with less than junior standing. In any event, it is important that he consult with his counselor in order to arrange a program which will meet the requirements for transfer to the institution of his choice.

College catalogs are on file in the Library and in the office of the Registrar. A comprehensive Occupational Library is available. The student may write directly to the registrar or dean of the institution of his choice to obtain catalogs, circulars of information and other data concerning required subjects.

The earlier the student makes a decision regarding a higher institution to which to transfer, the better are his chances for meeting all requirements without delay. If he is unable to make this decision when he enters Canada College he may elect to follow the requirements shown in the curriculum of the College of Letters and Science of the University of California at Berkeley.

High school subject deficiencies may be made up at Cañada College in order to meet course prerequisites at college level. In some instances the student may qualify for transfer to the college of his choice by maintaining an acceptable grade-point average at Cañada College without having met high school deficiencies.

# Suggested Curricula

## Agriculture

## Transfer Program

Recommended High School Preparation: Chemistry, Physics, Elementary Algebra, Intermediate Algebra, Geometry, Trigonometry, Mechanical Drawing, two years in one foreign language.

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university.

The student should refer to the catalog of the college of his choice for special requirements.

	Units		Units
English 1a-1b—Reading and		Chemistry 8—Elem. Organic	3
Composition	6	Social Science	9
Chemistry 1a-1b—General	10	Health Education	2
Physics 2a-2b—General	8	Physical Ed. (One course	
Botany 1—General	5	each semester)	2
Zoology 1a—General	5	Electives	8

Electives will be used to complete the particular requirements of the transfer school. For example: U. C. Forestry requires Math. 30, Engin. 1a-1b, Econ. 2 (Statistics); Humboldt State College Wildlife Management requires Zoology 1b, Psychology 1a, etc.

Included in the possible fields of emphasis are the following:

Agricultural Economics	Plant Pathology (Plant Science)
Agricultural Education	Pomology (Plant Science)
Agricultural Production	Vegetable Crops (Plant Science)
Irrigation Science	Viticulture (Plant Science)
Agronomy (Plant Science)	Animal Science:
Floriculture	Animal Husbandry
Genetics (Plant Science)	Animal Physiology and Genetics
Landscape Management	Poultry Husbandry
(Plant Science)	

Entomology and Parasitology
Farm Management
Food Science:
Dairy Industry Program
Food Technology Program
Home Economics
Preforestry

Preveterinary Medicine
Range Management
Soil Science:
General Soil Science Program
Soil Management and Conservation
Program

## Afro-American Studies

For courses available in this area see the special brochure "Ethnic Studies" available from the Registrar's office.

## American Studies

The transfer program in American Studies at most four-year colleges is the same as that listed under "Liberal Arts" with the following exception:

The six-unit English requirement and the National American Institutions requirement may be met by taking the specially labeled American Studies actions of English 1a-b and History 17a-b.

# Anatomy Anthropology

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

## Art

The student who intends to transfer a major in Art should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements of the college, university or art school to which he wishes to transfer. Students can plan their course in any of the following areas: Fine Arts and Commercial Art.

An Associate in Arts degree is awarded with a major in Art in any of the following suggested program plans:

## Art (Commercial)

## Associate in Arts Degree with a Major in Commercial Art

Recommended High School Preparation: Design, Drawing, Painting and Poster Service.

Freshman Year	Un	its	Sophomore Year	Un	its
	F	S		F	S
Art 1a—History of Art	3	3	Art 3—Color	-	3
Art 2a—Form and Com-			Art 6a-Painting I	3	-*
position	3	-	Art 7a-Watercolor	3	3*
Art 4—Perspectives	_	2	Art 19—Art of Our		
Art 5a—Design	3	_	Times	3	_
Art 10—Introduction to			Physics 10—Intro. to		
Related Arts	-	3	Descriptive Physics	3	-
Art 12—Lettering	-	2	Polit Sci. 21—American		
English by Eligibility	3	-	Institutions	-	3
Polit. Sci. 24—Calif.			Philosophy 6a or b		
Urban Govt.	2	-	(or Eng. Lit.)	3	-
Health Education 1	2	-	Electives, Gen. Ed	-	2
Life Science 10	_	3	Physical Education	1/2	1/2
Speech la	-	3			
Physical Education	1/2	1/2			
	161/2	1.61/-		151/2	111/2
	101/2	161/2		131/2	111/2

<sup>\*</sup>Art 6b and 7b are interchangeable.

## Suggested Electives

Art 5b—Design (3)	Bus. 120—Advertising (2)			
Guid. 1—Introduction to College (1)	Art courses not listed above			

### CAREER OPPORTUNITIES

Commercial artists may be employed in advertising, manufacturing, public relations or communications. Experienced artists frequently specialize in a particular product or field such as fashion, industrial art, advertising, story illustration or interior design.

# Art (Fine Arts)

# I-Associate in Arts Degree with a Major in Fine Arts, Painting

Freshman Year	Un	nits	Sophomore Year	Un	its
	F	5		F	S
Art 1b-History of Art	-	3	Art 3—Color	_	3
Art 2a-2b—Form and			Art 6a-6b-Painting	3	3*
Composition	3	3	Art 7a-7b-Watercolor	3	_*
Art 13a-13b-Drawing	3	3	Art 15-Life Drawing	2	_
Art 10—Introduction to			Art 19-Art of Our Times	_	3
Related Arts	_	3	Physics 10—Intro. to		
English by Eligibility	3	_	Descriptive Physics	3	-
Polit. Sci. 21— Amer.			Philosophy 6a or 6b		
Government	3	-	(or Eng. Lit.)	3	_
Life Sci. 10	3	-	Polit. Sci. 24—Calif.		
Speech la	-	3	Urban Govt.	2	_
Physical Education	1/2	1/2	Health Education 1	_	2
			Electives, General		
			Education	-	1
			Physical Education	1/2	1/2
1	51/2	151/2	1	61/2	121/2

Art 6b and 7b are interchangeable.

### Suggested Electives

Art 1a—History of Art (3)
Art courses not listed above

Guid. 1—Introduction to College (1)

# II-Associate in Arts Degree with a Major in Fine Arts, Sculpture

Freshman Year	Uni	ts	Sophomore Year U	nits
F		5	F	5
Art 1a-1b-History of Art 3		3	Art 15-Life Drawing 2	_
Art 2a—Form and			Art 19—Art of Our Times 3	_
Composition3		_	Art 20a—Ceramics -	3
Art 5b—Design		3	Art 22a-22b—Sculpture. 3	3
Art 13a-13b-Drawing 3		3	Physics 10—Intro. to	
English by Eligibility 3		-	Descriptive Physics 3	_
Polit. Sci. 21—Amer.			Philosophy 6a or 6b	
Government 3		_	(or Eng. Lit.)3	_
Life Sci. 10		3	Polit, Sci. 24—Calif.	
Speech la		3	Urban Govt. 2	=
Physical Education	1/2	1/2	Health Education 1	2
			Electives.	
			General Education	4
			Physical Education 1/2	1/2
151/	1/2	151/2	161/2	121/2

# Art (Fine Arts-continued)

### Suggested Electives

Art 10—Introduction to Related

Art 3-Color (3)

Arts (3)

Art courses not listed above

Guid. 1—Introduction to College (1)

# III-Associate in Arts Degree with a Major in Fine Arts, Ceramics

Substitute 5a for 5b in Sculpture Substitute Art 20b for Art 22b Add Art 12a—Lettering

## Asian Studies

For courses available in this area see the special brochure "Ethnic Studies" available from the Registrar's Office.

Bacteriology Biochemistry Biology Biophysics Botany

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

## **Business Administration**

## Transfer Program

Recommended High School Preparation: Elementary Algebra, Intermediate Algebra, Plane Geometry, Trigonometry, Chemistry or Physics.

The program outlined on the following page is typical of requirements for transfer in junior standing to a four-year college or university.

For information concerning the transfer requirements of other colleges and universities, students should consult the catalogs of the colleges and universities concerned, or their Cañada College counselor.

The program outlined below is typical of requirements for transfer in junior standing to a state college.

## Business Administration (continued)

	Units		Units
*English la-lb	6	Lit., Philosophy and Arts	3-6
Physical and Life Science	6	(At least one in Philos. or L	it.)
Economics la and lb	6	Psychology 1a or 10	3
Bus. Adm. 1a and 1b	8	Health Education	2
Bus. Adm. 18a	3	Social Science	7-9
Physical Education	2	(Including American History	Υ,
G.E. Electives	6	U. S. Constitution and	
		California Government)	

Students graduating with a major in the field of Business Administration must achieve a percentile rating of 50 on the mathematics section of the SRA entrance test or 35 or over on the quantitative part of the SCAT test, or complete Bus. 50 with a grade of "C" or better. It is recommended that Bus. 50 be completed by the end of the second semester.

\*Speech 1a is required at San Jose State College and may be substituted for English 1b. Logic or Ethics and Finite Mathematics are required by San Jose State.

## **Business**

#### Terminal Programs

The following major programs are designed to qualify a student, upon completion of a curriculum, for employment in an area of specialization. The development of business skills which can be utilized for immediate employment is emphasized, with general courses offered to provide a background for future promotion in the chosen occupational area.

Students graduating with a major in the field of Business must meet the following subject requirements:

Twenty units in Business courses.

Business 50 or 51, or a satisfactory score on a Business Mathematics competency exam.

Business 55-Introduction to Business

# Business (General Clerical)

## Associate in Arts Degree with a General Clerical Major

(Recommended Program)

Freshman Year	Un	its	Sophomore Year	Ur	nits
	F	S		F	5
Health Education	2	-	Bus. 60-Intro. to		
Bus. 92a, b or c	-	3	Data Processing	3	-
Bus. 91—Bus. English	3	-	Bus. 93—Calculating		
English	-	3	Machine	-	3
General Education			Soc. Sci.	3	3
Elective	3	-	Bus. 100—Office		
Bus. 50 or 51—			Procedures	-	3
Bus. Math.	3	-	General Education		
Bus. 56—Bus. Corres	_	3	Elective	3	3
Bus. 58—Human			English	_	3
Relations	-	3	Business 92b or c—		
Bus. 55—Intro. to Bus	3	-	Typing	3	-
Electives	2	-	Bus. 66 or Bus. Adm. 1a	4	_
Bus. 63—Bus. Econ.	2	3	Physical Education	1/2	1/2
Physical Education	1/2	1/2			
1	61/2	151/2		161/2	151/2

### Suggested Electives

Bus. 35—Personal Finance (3) Speech Bus. 64—Bus. Law (3) Guid. 1

Speech 62—Elements (3)
Guid. 1—Introduction to College (1)

### CLERK-TYPIST CERTIFICATE PROGRAM

Remedial Courses (if required by testing)

Core Courses	Units
Bus. 92a-b-c—Typing (through 92c)	3-9
Bus. 100—Office Procedures	3
Bus. 55—Introduction to Business	3
Bus. 93—Calculating Machines	3
Related Courses	6
English A or Business English	3
Electives	

27-33

# Business (Secretarial)

## Associate in Arts Degree with a Secretarial Major

(Recommended Program)

Freshman Year	Un	its	Sophomore Year	Un	its
	F	5		F	S
Health Education	-	2	English	3	-
Bus. 92a or 92b-Typing	3	-	Bus. 92b or 92c-Typing	3	-
Bus. English	3	-	Bus. 90b, c-		
English	-	3	Shorthand (Gregg)	7	5
Bus. 66—Gen. Acc't	4	-	Bus. 100—Office		
Bus. 50 or 51—Arith	3	-	Procedures	3	=
Bus. 93—Mach.			Social Science		
Calculation	_	3	Requirement	-	5
Bus. 55-Intro. to Bus	3	_	General Education		
Bus. 90a-b or c-			Electives	-	3
Shorthand (Gregg)	-	5	Bus. 56—Bus.		
General Education			Correspondence	-	3
Electives	-	3	Physical Education	1/2	1/2
Physical Education	1/2	1/2			
	161/2	161/2		161/2	161/2

See Business secton for division requirements for all Business majors.

## Suggested Electives

Guid. 1—Introduction to College (1)	Bus. 58—Human Relations (3)
Bus. 35—Personal and	Bus. 64—Bus. Law (3)
Family Finance (3)	Bus. 81—Security Investments (3)
Bus. 63—Bus. Econ. (3)	

### SECRETARIAL CERTIFICATE PROGRAM REQUIREMENTS

Remedial Courses (if required by testing)	
Core Courses	Units
Bus. 92a-b-c—Typing (through 92c)	6-9
Bus. 90a-b-Shorthand (through 90b)	7-12
Bus. 100—Office Procedures	3
Bus. 55—Introduction to Business	3
Bus. 93—Machine Calculation	3
Business Elective	3
Related Courses	6
English (Business English included)	6
Speech	3
	40-48

## **Business Administration**

(Two-Year Program)

Assocate in Arts Degree in Business with an Emphasis in Business Administration.

(20 units in Business required.)

(Recommended Program—This curriculum is for the Business student who does not wish to specialize.)

Freshman Year	Un	its	Sophomore Year	Un	its
	F	S		F	5
Bus. 63-Bus. Econ	_	3	Bus. 91—Bus. Eng	3	-
Health Education	-	2	American Institutions	-	3
Bus. 92—Typing	-	3	Bus. 93—Machine		
English—by Eligibility	3-5	=	Calculation	3	-
Bus. 66-Gen. Acc't. or			General Education		
Bus. Admin. 1a	4	-	Electives	3	3
Bus. 50 or 51—Basic			Bus. Elective	3	-
Math	3	-	Mgt. 92—Tech. of		
Social Science			Supervision	-	3
Requirement	_	2	Bus. 58—Human		
Bus. 64/18a—Bus. Law	-	3	Relations	3	_
Bus. 55-Int. to Business	3	-	Bus. 56-Bus. Corres.	4	3
Bus. 60—Introduction to			Bus. 65—Small		
Data Processing	-	3	Business Management	-	3
Physical Education	1/2	1/2	Physical Education	1/2	1/2
	151/2	161/2		151/2	151/2

### Suggested Electives

Bus. 35—Personal and Family
Finance (3)

Bus. 110—Fundamentals of
Salesmanship (3)

Bus. 116—Retail
Merchandising (3)

Bus. 47—Cooperative Education (1-3)

Bus. 36a-b—Credit
Management (3-2)

Bus. 81—Security Investments (3)

Bus. 70a—Principles of
Transportation (3)

Guidance 1—Introduction to
College (1)

## BUSINESS ADMINISTRATION CERTIFICATE PROGRAMS

### **Business Administration Certificate Requirements**

Core requirements	15	units
One group of Business options	15	units

# Business Administration (continued)

REQUIRED CORE COURSES (common to any of the Business options)

REQUIRED CORE COURSES (common to any of the Busines	s options)
	Units
Bus. 50/51—Business Arithmetic	. 3
Bus. 55—Introduction to Business	
Bus. 58—Human Relations	. 3
Bus. 47a—Cooperative Education	. 3
Bus. 47b—Cooperative Education (Recommended)	
Bus. 91/63-Bus. Eng./Bus. Econ.	
	_
	15
BUSINESS OPTIONS (in addition to core courses)	
Credit Management Option	
Bus. 64/18a—Business Law	. 3
Bus. 35—Personal and Family Finance	
Business Elective (AA Program)	
Bus. 36a—Credit Management	
Bus. 36b—Credit Management	. 3
	15
(plus c	ore courses)
Merchandising Option	
Bus. 65—Small Business Management	3
Bus. 110—Salesmanship	
Bus. 116—Retail Merchandising	3
Bus. 120—Advertising	. 3

15 (plus core courses)

## Home Furnishings-Merchandising Option

Bus. 124-Marketing

Art 3a—Form and Color.	3
Home Ec. 40—Housing and Interior Decoration.	3
Home Ec. 41—Interior Design	3
Bus. 65—Small Business Management	3
Bus. 116—Retail Merchandising	3
	_
	15

(plus core courses)

# Business Administration (continued)

## Transportation Option

→us. 63/Econ. 1a—Bus. Econ./Principles of Economics	3
us. 70a—Transportation	
Jus. 70b—Traffic Management	3
Bus. 124—Marketing	
Peog. 1a—Physical Geography	
	-
	15

(plus core courses)

# usiness Administration—General Option

Students are encouraged to work for an AA degree in addition to the Busiess Administration Certificate. Refer to the appropriate curriculum for the AA degree program for suggested electives.

# **Business** (Credit Management)

ssociate of Arts Degree with a Credit Management Major

(Recommended Program)

reshman Year	Un	its	Sophomore Year	Un	its
	F	5		F	5
Bus. 35—Personal and			Bus. 36a—Credit Mgmt	3	_
_ Family Finance	-	3	Bus. 36b-Credit Mgmt	-	3
us. 50 or 51—Bus.			Bus. 56-Bus. Correspon.	_	3
_ Arith	3	-	Bus. 64 or 18a-		
Bus. 63 or Econ. 1a-Bus.			Bus. Law	3	-
Econ./Prin. of Econ	3	-	Mgmt. 92-Tech. of		
us. 55—Intro. to Bus	3	-	Supervision	-	3
Jus. 58—Human			Elective	3	4
Relations	_	3	English	3	-
Bus. 66 or 1a-			General Educ. Elective	-	3
Accounting	-	4	Social Science	3	3
Jus. 91—Bus. English	3	-	Physical Education	1/2	1/2
English	-	3			
General Educ. Electives	-	3			
ealth Education	2	-			
hysical Education	1/2	1/2			
14	1/2	161/2		151/2	151/2

# Business (Credit Management-continued)

## Suggested Electives

Bus. 92—Beginning Typing (3)	Mgmt. 52-Report Writing (3)
Bus. 93—Machine Calculation (3)	Data Proc. 60-Intro. to D.P. (3)
Bus 47—Cooperative Education (1-3)	Bus 65-Small Bus Mamt (3)

-Intro. to D.P. (3) Bus. Mamt. (3)

Mgmt. 80-Personnel Mgmt. (3) Bus. 116—Retail Merchandising (3)

# Business (Merchandising-Management)

## Associate in Arts Degree in Business with Specialization in Merchandising

(Recommended Program-20 units in Business required.)

This program is planned to prepare men and women for responsible positions in the merchandising and management field. Store organization, management, merchandise control, buying and selling, sales promotion, accounting and control, and problems inherent in the operation of a progressive retail business are included.

Freshman Year	Un	its	Sophomore Year	Un	its
	F	5		F	5
Bus. 50 or 51—Bus.			Bus. 116—Retail		
Arithmetic	3	-	Merchandising	3	-
Bus. 55-Intro. to Bus	3	-	Bus. 124—Marketing	-	3
Mgmt. 92—Supervision	-	3	Bus. 66-Gen. Acc't		-
Bus. 120—Advertising	-	3	Bus. 65—Small		
Bus. 58—Human			Business Mgmt.	_	3
Relations	-	3	Speech 62	3	-
Bus. 110—Salesmanship	3	-	Social Science		3
English by Eligibility	5	3	General Education		
Health Education	2	-	Elective	3	3
Elective	-	3	Bus. 47—Cooperative		
Physical Education	1/2	1/2	Education	_	3
			Physical Education	1/2	1/2
1	61/2	151/2	i	61/2	161/2

### **Business Electives**

Bus.	35—Persona	and Family
Fi	inance (3)	
Bus.	58-Human	Relations in

Business (3)

Bus. 60—Introduction to Data Processing (3)

Bus. 63-Business Econ. (3)

Bus. Ad. 1a—Accounting (4)

Bus. 56-Bus. Correspondence (3)

Bus. 64-Business Law (3)

Bus. 91—Business English (3)

Bus. 93—Calculating Machines (3) Bus. 92a—Beginning Typing (3)

# Business (Transportation)

## ssociate in Arts Degree in Business with a Specialization in Transportation

(Recommended Program—20 units in Business required.)

reshman Year U	nits	Sophomore Year	Un	its
F	S		F	5
English—by Eligibility 5	3	Bus. 70a—Transportation	3	_
aus. 50 or 51—Arith 3	-	Bus. 70b-Traffic Mgmt.	-	3
us. 55—Intro. to Bus	3	Bus. 124—Marketing	_	3
us 64/18a—Bus Law -	3	Geog. 1a-Physical	3	-
Bus. 63/Econ. 1a	_	Soc. Sci. 1 & 2-Intro	3	3
Susiness Elective -	3	Bus. Adm. 1a or Bus.		
eog. 5—Regional 3	_	66—Accounting	4	-
eog. 4—Economic -	3	Bus. 58—Human		
Health Education 2	_	Relations	-	3
hysical Education 1/	2 1/2	General Education		
		Electives	3	3
7		Physical Education	1/2	1/2
161/	2 151/2		61/2	1.51/2

ee Business section for division requirements for all Business majors.

## Suggested Electives

atistics 2—Statistics (4)
ccon. 11—Econ. Hist. U. S. (3)
Bus. 60—Intro. to Data
Processing (3)
us. Admn. 18b—Adv.
Commercial Law (3)

Management 92—Supervision (3)
Psych. 1a—General (3)
Bus. 65—Small Business
Management (3)
Bus. 47—Cooperative Education (1-3)

### CAREER OPPORTUNITIES

A relatively new field in business, Transportation offers an unlimited future in rail, motor, marine and air transportation, plus the field of traffic management. Numerous positions are offered in personnel, public relations, trade evelopment, promotional services and management.

hemistry

See "Physical Sciences."

Cooperative Education

# Criminology

The student who intends to transfer a major in Criminology should plan his course at Cañada College to meet the general requirements for junior standing as well as the lower division department requirement of the college or university to which he intends to transfer. For Associate in Arts (two-year) program, see Police Science.

Dental Hygiene See "Medical Science."

Dentistry See "Pre-Dental"

Dramatic Arts See "Liberal Arts."

Ecology

Economics See "Social Science." The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

## Education

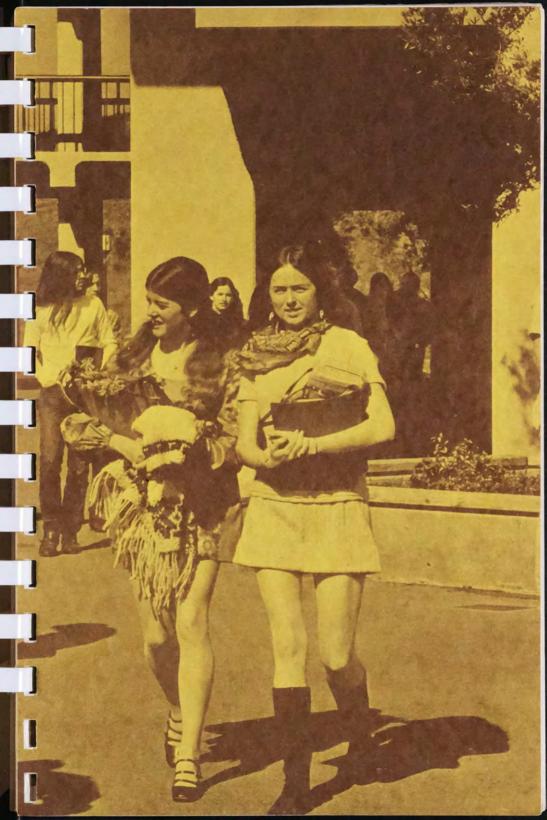
Recommended High School Preparation: History, English (four years), Foreign Language (three years in one language—Spanish is strongly recommended for Elementary teachers in California), Algebra, Geometry, Chemistry or Physics.

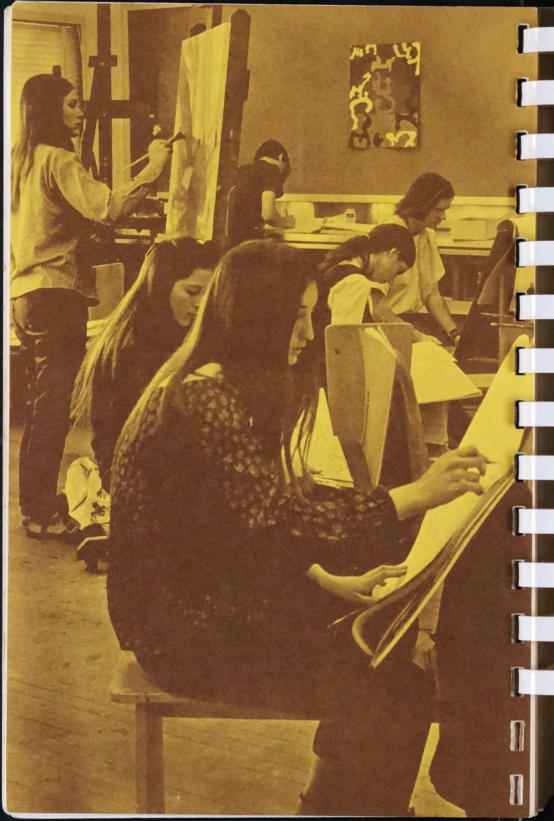
Students who plan to qualify for the Standard Teaching Credential with a specialization in elementary teaching or secondary teaching, must present a teaching major. In addition, three courses in English, including a course in English Composition, are required for both credentials.

The following outlined program is typical of requirements for transfer in junior standing to a four-year college or university.

The student should refer to the catalog of the college of his choice for special requirements.

Students desiring an A.A. degree program in Teachers Assisting or a Nursery School Certificate should obtain the special supplements from the Registrar's Office.





# Education (Continued)

	Units		Units
English 1a-1b-		Psychology 33-1a	6
Reading and Comp.	6	Education 1	2
Foreign Language (continuing		Physical Ed. (One course	
from high school)	4-8	each semester)	2
Physical Science	3-8	Humanities (Art, Music,	
Life Science	3-8	Literature)	6
History	6	Speech	3
Polit. Sci. 25 (Amer. Inst.)	5	Audio Visual	2
Health Education	2	Electives	9
The state of the s			

All standard elementary teaching credentials now require completion of at least one course equivalent to Math. 16.

Electives will be used to complete the particular requirements of the transfer school. The following are strongly recommended for the Elementary teacher.

Education 2	Fine Arts 44
Education 3	Ethnic Studies

# Engineering (Basic Program)

The basic Engineering program detailed below prepares for transfer to the engineering department of many four-year colleges and universities at the end of the sophomore year and meets the requirements for an A.A. degree. The student should refer to the catalog of the college of his choice for special requirements.

Recommended High School Preparation: Mathematics (four years), Chemistry (one year), Physics (one year), Mechanical Drawing (one year).

Freshman Year	Units		Sophomore Year	Units	
	F	S		F	S
Math. 30—Anal.			Math. 32-33—Calculus	3	3
Geometry and Calculus	5	-	Engin. 35—Statics	3	_
Math. 31—Calculus		3	Math. 34—Diff.		
Chem. 1a-1b-General	5	5	Equations or		
Physics 4a—General	_	4	Engin. 36—Dynamics	-	3
Engin. 20—Desc.			Engin. 37—Strength of		
Geometry	2	-	Materials	-	3
Engin. 22—Graphics		2	Engin. 38—Circuits and		
Engin. 10-Engin. Prof	2	-	Devices	-	3
Eng. 1a		-	Physics 4b-4c—General	4	4
Eng. 1b or Speech 1a		3	Polit. Sci. 25—National		
Physical Education		1/2	State and Local Govt	5	-
			Health Education	2	-
			Physical Education	1/2	1/2
	171/2	171/2		171/2	161/2

# Engineering Basic Program (Continued)

To meet special requirements of certain transfer colleges, the student may want to substitute one or two of the following subjects offered only at College of San Mateo:

Engin. 1a—Measurements (3)—for those students whose transfer college requires Surveying (usually only for Civil Engineers)

Engin. 45—Properties of Materials (3)—which should be taken when the student's transfer course requires it but his transfer college does not offer it as an upper-division subject.

Math 25—Computer Programming (3)

## English

# Entomology

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# **Environmental Technology**

See "Environment" under "Announcement of Courses" for current offerings. Certificate, A.A. degree and transfer programs are in the developmental stages. Specialized courses in the several areas of environment technology are planned for the 1971-72 college year.

## **Ethnic Studies**

The Ethnic Studies curriculum at Cañada College is designed to enable students to major in this area and at the same time to complete a more traditional major for transfer to the four-year institutions. The following majors are available:

Afro-American Studies—Inter-disciplinary
Afro-American Studies and Social Sciences
Afro-American Studies—Literature and the Fine Arts
Mexican American Studies—Inter-disciplinary

Mexican-American Studies—Inter-disciplinary Mexican-American Studies and Social Sciences

Mexican-American Studies—Literature and the Fine Arts

Asian Studies—Inter-disciplinary

Asian Studies and Social Sciences

Asian Studies—Literature and the Fine Arts

For a suggested list of courses available in each of these majors see the special brochure "Ethnic Studies" available from the Registrar's Office.

# Food and Lodging Technology

# Associate in Arts Degree with a Major in Food and Lodging Technology

First Semester	Units	Second Semester	Units
*English 50a, A, or 1a	3-5	Food Tech. 49—Special	
*Food Tech. 50a—Food Prep.	5	Problems	1-2
or		*Food Tech. 50b-Food Prep.	5
Food Tech. 51a-Food Prep.	4	or	
*Food Tech. 60a—Food Purch.	2	Food Tech. 51b-Food Prep.	4
Food Tech. 65-Menu Planning	2	*Food Tech. 60b-Food Purch.	2
*Food Tech. 68—Sanitation		Food Tech. 66—Food and	
and Safety	2	Beverage Control	2
Guid. 1—Intro. to College	1	*Health Education	2
*Food Tech. 90—Food Tech.		*Food Tech. 90—Food Tech.	
and Administration	1	and Administration	1
* Physical Education	1/2	*Physical Education	1/2
Electives	1/2	Electives	5-6
141/2-	161/2	141/2	-161/2

<sup>\*</sup> Required.

Second Year: Students should enroll in classes in their specialization.

Foods	Units	Allied Supply Field	Units
FT 52—Food Preparation		Bus. 116—Merchandising	3
Supervision	3	Bus. 110—Fundamentals of	
FT 53—Catering and		Salesmanship	3
Special Functions	2	FT 80—Equipment Layout	
FT 54—Advanced Food		and Design	4
Preparation	3	Food Facilities Engineering	
FT 55—Baking	2	FT 80—Equipment Layout	
FT 70—Food Management		and Design	4
Problems	3	DT 50—Drafting Fundamentals	2
FT 47—Cooperative Education	1-3	Accounting	
Electronic Data Processing		Bus. Adm. 1a—Accounting	4
DP 60-Intro. to Data		FT 75—Hotel and	
Processing	3	Restaurant Accounting	3
DP 63a—Basic Computer		Lodging Technology	
Programming	4	LT 91—Int. to Hotel-Motel	
DP 63b—Computer		Management	2
Programming Systems	4	LT 92—Hotel-Motel	
FT 85—Food Service		Organization and Adm.	2
Computer Systems	4	LT 93—Front Office	
		Procedure	3

# Food and Lodging Technology (continued)

#### Suggested Electives

Bus. 58a—Human Relations (3)

Bus. 50—Business Arithmetic (2)

Bus. 55—Introduction to Business (3) Sp. 1a—Elements of Speech (3)

Bus. 35—Personal & Family

Finance (3)

Bus. 65—Small Business

Management (3)

Bus. 120—Advertising (3)

Bus. 124—Marketing (3)
Psych. 10—Psychology in Practice(3)

Students should check under graduation requirements for courses required for the Associate in Arts degree, and with their counselor for 26-unit Certificate requirements.

# Foreign Languages

# Forestry

### Genetics

# Geography

# Geology

# History

Also see "Social Science."

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# Home Economics

The student who intends to transfer a major in Home Economics should plan a course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which the student wishes to transfer.

# Home Economics (continued)

#### Associate of Arts Degree with a Major in Home Economics

Freshman Year	Uni	its	Sophomore Year	Uni	its
	F	S		F	S
English and/or Speech	3	3	Amer. Institutions	3	3
H.Ec. 20a or 20b-			Psych. 4—Marriage	3	-
Clothing	3	-	Sociology 2—Soc. Prob. or		
H.Ec. 20b or 20c—			Sociology 3-Minorities or		
Clothing	-	3	Anthropolgy 2—Cultural	-	3
H.Ec. 52—Food Prep	2	-	H.Ec. 20c—Creative		
H.Ec. 6—Consumer Ed.	2	-	Fashion	3	-
H.Ec. 24—Fashion			H.Ec. 9-Nutrition	2	-
Analysis	-	2	H.Ec. 35—Child in the		
Psych. 1a—General or			Home	3	-
Psych. 10—Psych. in Prac.,			H.Ec. 22—Textiles	_	3
or			H.Ec. 40 or 41—Int.		
Psych. 33—Psych. of			Design	_	3
Adjust	3	-	Physical Education	1/2	1/2
Health Ed.	2	-	Electives	2	3
H.Ec. 7—Home					
Management	-	2			
Physical Education	1/2	1/2			
Electives	4	2			
	61/2	151/2		161/2	151/2

### **Humanities**

See "Liberal Arts."

# International Relations

Also see "Social Science."

### Journalism

Pre-Legal

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

### Liberal Arts

#### Transfer Program

Recommended High School Preparation: English (three years), Elementary Algebra, Plane Geometry, Intermediate Algebra, Laboratory Science taken in junior or senior year, Foreign Language (two years in same language). (High school Foreign Language and a Laboratory Science are not required for transfer to some institutions.)

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university. The student should refer to the catalog of the college of his choice for special requirements.

	Units		Units
English 1a, English 1b or		For Major Requirements in	1910109
Speech la	6	specific subject fields	
Physical Science	3-8	confer with a counselor.	
Biological Science	3-8	Health Education	2
Social Science		Physical Education	2
American Institutions	4-8	Foreign Language (Continuing	
Psych. 1a or Electives	3-5	from high school)	4-8
Humanities			
Literature or Philosophy	3-6		
Music, Art, Drama, Literature,			
Philosophy	3		

# Librarianship

The student who intends to transfer eventually to a graduate library school should plan his course at Cañada College to meet the requirements of the library school to which he intends to transfer.

# Mathematics

Cañada College offers a wide variety of courses for the student who wishes to major in Mathematics, enabling him to transfer to a university or four-year college at the end of the sophomore year. The student should consult the catalog of the college of his choice for special requirements.

Recommended High School Preparation: Four years of high school level mathematics, physics (one year), mechanical drawing (one year), two or more years of a foreign language (German, French or Russian).

### Medical Illustration

The student who intends to transfer a major in this field should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

### Medical Sciences

#### Transfer Program

(Pre-Medical, Pre-Nursing, Medical Lab Technician, Physical Therapy, Dentistry, Dental Hygiene, Pre-Veterinary Medicine, Pre-Pharmacy, Optometry.)

Recommended High School Preparation: Elementary Algebra, Plane Geometry, Intermediate Algebra, Trigonometry, Chemistry, Biology, Physics, Foreign Language.

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university. The student should refer to the catalog of the college of his choice for special requirements.

	Units		Units
English 1a, English 1b or		Major Requirements 2	0-30
Speech la	6	May include:	
Social Science		Chemistry 1a-1b, 5, 8, 9,	
American Institutions	4-8	Physics 2a-2b, or	
Psych. 1a or Electives	3-5	Physics 4a-4b-4c,	
Humanities		Zoology 1a-1b,	
Literature, Philosophy	3	Psychology 33, Anthropology	gy,
Art, Music, Drama, Literatur	e,	Anatomy, Bacteriology,	
Philosophy	3	Physiology, Sociology,	
Foreign Language (Continuing		Analytical Geometry and	
from high school)	4-8	Calculus.	
Health Education	2		
Physical Education	2		

# Mexican-American Studies

For courses available in this area see the special brochure "Ethnic Studies" available from the Registrar's Office.

# Microbiology

The student who intends to transfer a major in this field should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# Military Science (Reserve Officers' Training Corps)

Military Science is offered to qualified students enrolled on a full-time basis at Cañada College. Classes and leadership laboratory are conducted at Stanford University under the supervision of the Professor of Military Science, Stanford University.

Students may complete the first two years of Army ROTC while enrolled at Cañada College and qualify for enrollment in the advanced course (third and fourth year) at degree granting universities. Completion of ROTC and a baccalaureate degree qualify students for a commission in the United States Army Reserve.

Interested students may secure application for enrollment forms from their counselor, or by writing to the Department of Military Science, Stanford University, Stanford, California.

### Music

The student who intends to transfer a major in Music or Music Education should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements of the college, university or music school to which he intends to transfer. The program outlined below is typical of requirements for transfer with junior standing to a state college:

### Associate in Arts Degree with a Major in Music

Recommended High School Preparation: Chorus, or Band or Orchestra, Music Theory, Music Appreciation, private study in performance.

Freshman Year	Unit	5	Sophomore Year	Unit	5
	F	5		F	S
Music 1—Mucisianship	. 2	-	Music 2b—Advanced		
Music 2a—Adv.			Musicianship	2	_
Mucisianship	-	2	Music 5a-5b—Advanced		
Music 4a-4b—Harmony		3	Harmony	3	3
Music 6—Appreciation			Applied Music		1
and Survey	3	_	11—Piano		
Applied Music		1	24—Brasses		
11—Piano*			25—Woodwinds		
24—Brasses			26—Strings		
25—Woodwinds			36—Voice		
26—Strings			Performance Groups	2	2
36—Voice			Music 22—Orch. (2)		
Performance Groups	2	2	Music 23—Band (2)		
Music 22—Orch. (2)			Music 33—Chorus (2)		
Music 23—Band (2)			Physics 9—Sound and		
Music 33—Chorus (2)			Music	3	-
English 1a	3	_	Polit. Sci. 21—		
Speech 1a		3	American Govt.	3	-
Health Education 1		_	Music 10—Introduction		
Life Science 10		3	to Arts	-	3
Polit. Sci. 24—Calif.			Philosophy 6a or 6b		
Urban Govt.	_	2	(or Lit. course)	_	3
Physical Education		1/2	Physical Education		1/2
	161/2	161/2	1	41/2	121/2

\*All Music Majors should study piano, Music 11, at least two units.

# Suggested Electives

Guid. 1—Introduction to College (1) Music courses not listed above

# Nursery School

Students desiring to pursue a career in this area should obtain the special Nursery School supplement from the Registrar's Office.

Nursing

Also see "Medical Sciences"

Nutrition

Also see "Home Economics."

Occupational Therapy

Pre-Optometry
Also see "Medical Sciences."

Paleontology

Parasitology

Pharmacy

See "Medical Sciences."

Philosophy See "Social Science."

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer

# Physical Education

# Transfer Program

Recommended High School Preparation: Foreign Language, Elementary Algebra, Plane Geometry, Intermediate Algebra, Biology, Chemistry, competency in aquatics, rhythms and dance, games and relays, individual and dual sports, team sports, gymnastics and (for men) combatives.

Physical Education majors should take P.E. Competencies (P.E. 20, or P.E. 30, or P.E. 50) each semester rather than a general service section of Physical Education

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university. The student should refer to the catalog of the college of his choice for special requirements.

# Physical Education (continued)

	Units	Units
English 1a, English 1b or		Phys. Ed. 40—(Co-ed) 2
Speech la	6	Phys. Ed. 20a, b, c, d (women) 2-81/2
Social Science		(may replace general service
American Institutions	4-8	requirements in P.E.)
Psych. 1a and Electives	3-5	Phys. Ed. 30a, b, c, d (men) 2-8
Humanities		(may replace general service)
Literature, Philosophy	3-6	requirements in P.E.)
Art, Music, Drama, Literatur	re,	Major Requirements 20-30
Philosophy	3	May also include:
Foreign Language (continuing		Biology 10a, Anatomy 1,
from high school)	4-8	Physics 10, Physiology 1,
Health Education	2	Bacteriology, Chemistry 1a,
Physical Education		and Electives.
(general service)	2	

# Physical Sciences (Chemistry, Physics)

### Transfer Program

Recommended High School Preparation: Four years of high school level mathematics, chemistry, physics, and two or more years of a foreign language (German, French or Russian).

The program outlined below is typical of requirements for transfer in junior standing to a four-year college or university. The student should refer to the catalog of the college of his choice for special requirements.

Units	Un	its
	Physical Education	2
6	Major Requirements 20-3	0
	May also include:	
4-8	Chemistry 1a, 1b, 5, 12a	
3-5	Math. 30, 31, 32, 33, 34	
	Physics 4a, 4b, 4c	
3-6	Electives	
3		
2		
4-8		
	6 4-8 3-5 3-6 3 2	Physical Education 6 Major Requirements 20-3 May also include: 4-8 Chemistry 1a, 1b, 5, 12a 3-5 Math. 30, 31, 32, 33, 34 Physics 4a, 4b, 4c 3-6 Electives 3

# Physical Therapy

# **Physics**

Also see "Physical Sciences."

# Physiology

The student who intends to transfer a major in one of these field, should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# Police Science

Associate in Arts Degree with a Major in Police Science

Freshman Year	Ur	nits	Sophomore Year	Ur	nits
	F	5		F	5
English—by Eligibility	3	3	Police Sci. 51a—		
Police Sci. 9—			Criminal Investigation	3	_
Introduction	3	-	Social Sci. 29—Juv. Proc.		3
Sociology 40	3	-	Police Sci. 52—		
Police Sci. 50—Patrol			Criminal Law	3	_
and Report	-	3	Police Sci. 55—Criminal	7	
Police Sci. 60—Traffic	-	3	Evidence	_	3
Health Education	-	2	Police Sci. 70—		
Elective 3	3	3	Organization	2	_
Political Sci. 21 or 7 3	3	-	Social Sci. 38—		
Political Sci. 24	-	2	Community Relations	3	_
Physical Education	1/2	1/2	Police Sci. 80-Internship		2
			Electives		7
			Physical Education		1/2
151/	/2	161/2	12	11/2	151/2

#### Recommended General Education Electives

Psychology 33, 10, or 1a (3) Sociology 1—Introduction (3) Sociology 2—Social Problems (3) Chemistry 10—Survey (3)

Physics 10—Survey (3)
Life Science 10—Introduction (3)
Physical Science 10—Intro. (3)
Police Science 51b—Crimininal
Investigation (3)

### Probation

Also see "Social Service."

# Psychology

Also see "Social Service."

# Public Health

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# Radiologic Technology (X-Ray Technology)

### Associate in Arts Degree with a Major in Radiological Technology

Completion of the program enables the student to write the examination given by the American Registry of Radiological Technologists and become verified as a registered technologist. Basic science and General Education courses are given on the Cañada campus, with the clinical courses taught at one or more of the affiliating hospitals. Job opportunities exist in physicians' offices, hospitals, and clinics.

Prerequisites: High school graduation or equivalent; completion of a recent course in algebra and biology is recommended.

### (Recommended Program)

Freshman Year	Units		Sophomore Year	
	F	S		
Anatomy 62a-b	3	3	Radiological Tech. 3, 4	
Physics 62	3	-	Speech la	
Psychology 1a, 5		3	Humanity Elective	
Social Science 1, 2	3	3	Free Elective	
English A/la	3	-	Typing	
Health Education	-	2	Physical Education	
Nursing 60	-	3		
Radiological Tech. 1		2		
Physical Education	1/2	1/2		
	151/2	161/2		

Summer Session (Ten Weeks) Radiologic Tech. 2 5

Second Summer Session (12 Weeks) Radiologic Tech. 5a Fall Semester—Third Year (24 Weeks) Radiologic Tech. 5b

Units F 5

1/2 1/2

111/2 111/2

# Recreation Education

Also see "Physical Education."

### Social Science

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

### Social Service

Students desiring an A.A. degree program for a career as a community worker in probation, social work or mental health should obtain the special supplement, "The Community Worker," from the Registrar's Office. Those interested especially in phychology should also investigate the Behavioral Technician program.

# Social Work

See "Social Service."

# Sociology

See "Social Science."

# Theatre Arts

See "Liberal Arts."

# Pre-Veterinary Medicine

See "Medical Sciences."

# Wildlife Conservation

# Zoology

The student who intends to transfer a major in one of these fields should plan his course at Cañada College to meet the general requirements for junior standing, as well as the lower division departmental requirements, of the college or university to which he wishes to transfer.

# Announcement of Courses

Practically all courses numbered from 1 to 49 are accepted by colleges and universities as transfer courses, assuming satisfactory grades. Certain colleges will accept, as transfer credit, units earned in many courses numbered 50 and above; such courses generally, however, are intended primarily as terminal courses.

Courses numbered 10 are specifically designed for General Education; the number 49 indicates Special Projects and the number 249 indicates a Community Education course.

The credit value of each course in semester units is indicated by a numeral in parentheses following the title. A semester unit of credit is based upon one hour of the student's time at the College per week in lecture or recitation throughout one semester, together with the time necessary in preparation thereof, or a longer time in laboratory or other exercises not requiring outside preparation.

Generally, in the following course descriptions, both semesters of a year's course are listed together if the first semester course is a prerequisite to the second semester course.

Evening College courses are described in a separate Evening College catalog-schedule. Many regular day college courses are also offered in the Evening College.

Specific information concerning class hours will be found in the Schedule of Classes for the semester.

# Anatomy

### 1 ANATOMY (4)

Three lecture hours and one three-hour lab period per week.

Prerequisite: Biology 10a or 10b or high school Biology with Grade B or better.

Designed to familiarize the student with the structure of the human body. Laboratory study and dissection of the human and higher mammals. Primarily intended for students of nursing, physiotherapy, hygiene and physical education. Elective for pre-dental, pre-medical and pre-veterinarian students.

# Anatomy (continued)

# 51 BODY STRUCTURE AND FUNCTION (2)

Two hours of lecture per week.

Designed to meet the requirements of the Vocational Nurse program and for students majoring in Medical Assisting. This course is integrated with the course in Medical and Surgical Nursing. It covers the normal body structure and function of the following systems: skeletal, muscular, circulatory, digestive, endocrine, respiratory and nervous. The anatomy of the special sense organs, the eye and ear, is also covered.

### 62a-62b ANATOMY FOR X-RAY TECHNOLOGISTS (3-3)

Two lecture hours and three lab hours per week.

A general survey of the anatomy and physiology of the human organism with emphasis directed primarily toward recognition of tissue by radiographs. Laboratory aids would include the human cadaver, preserved cat, radiographs and other pertinent material. Physiological aspects would center on the use of live material, and whenever possible the students would involve themselves.

# Anthropology

# 1 PHYSICAL ANTHROPOLOGY (3)

Three lecture hours per week.

The relationship of Homo sapiens to lower animals, the evidence of man's evolution, genetics, human racial stocks and man's early prehistory. (Course can be counted toward science requirement of some four-year colleges.)

# 2 CULTURAL ANTHROPOLOGY (3)

Three lecture hours per week.

Study of culture as the man-made environment of particular societies: prehistoric, historic and contemporary. Cross-cultural comparisons of child-training, personality, kinship and family, economy, politics, religion and relationships between these in specific societies and sub-cultures, including contemporary ethnic groups in the United States.

### 3 ARCHEOLOGY (3)

Three lecture hours per week.

Man's evolution during the period before written records. Prehistory bridges the gap between the natural history of man and the period of the first written records.

# Anthropology (continued)

#### 36 INDIANS OF NORTH AMERICA (3)

Three lecture hours per week.

An in-depth look at some of the life-ways of six distinct North American Indian cultures that are found in different geographical areas of North America. Stress will be in the area of cross-cultural comparisons of cultural and social phenomena which includes religious and world view systems, subsistence systems and political systems. Each of these cultures lived in vastly different ecological areas, which when examined carefully, shows the adaptation processes the cultures made to the different environments. The cultures are: Eskimo, Huron, Cheyenne, Washo, Aztecs, peasant group of Tepoztlan.

#### 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in Anthropology and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

#### Art

For Art majors, see program outlined in "Suggested Curricula." While intended primarily for regular students taking the semi-professional or premajor curriculum in Art, the courses marked with an (x) are especially recommended for any member of the community interested in adult education and effective use of leisure time.

#### 1a (x) HISTORY OF ART (3)

Three lecture hours per week.

A survey of prehistoric, ancient, classic, early Christian and medieval art.

#### 1b (x) HISTORY OF ART (3)

Three lecture hours per week.

A survey of art from the late Middle Ages through the 19th Century, with emphasis on the development of painting.

#### 2a (x) FORM AND COMPOSITION (SURFACES I) (3)

Three lecture hours per week.

Fundamentals of perceptual (subject matter) and conceptual (idea) composition, emphasizing line, shape, mass, value, space organization and texture.

Approximate cost of materials: \$20.

#### 2b FORM AND COMPOSITION (SURFACES II) (3)

Three lecture hours per week.

Prerequisites: Art 2a and concurrent enrollment in Art 99 (Studio Hours).

Advanced course in composition. Problems concerned with four major aesthetic points of departure: (1) color-field composition, (2) mono-field composition, (3) classical abstraction, (4) figurative composition.

Approximate cost of materials: \$30.

#### 3 COLOR (3)

Three lecture hours per week.

Consideration of color theory and practice. The relationship of color and form as applied to contemporary painting and design.

Approximate cost of materials: \$25.

#### 4 PERSPECTIVES (2)

Two lecture hours per week.

Development of skills in freehand perspective applied to Fine Art and Commercial Art areas. Problems will involve one- and two-point perspective, and reverse and creative perspective. Not offered as a substitute for mechanical or architectural drafting.

Approximate cost of materials: \$15.

#### 5a-5b DESIGN (3-3)

Three lecture hours per week.

Prerequisites: 5a-None; 5b-5a or 2a.

Study of spatial organization through color, line, shape and mass with emphasis on the conceptual process of composing: (1) designs on two-dimensional surfaces, and (2) development of three-dimensional forms. Course is related to practical application of design.

Approximate cost of materials: \$25.

#### 6a-6b (x) PAINTING (3-3)

Three lecture hours per week. Three additional studio hours required.

Prerequisite: None; recommend Art 2a-b.

Development of perceptual awareness of the optical effects of the painted surface. Acrylics, oil paint and other media are used to encourage individualized expression. Study of contemporary painting forms. (May be repeated for credit.)

Approximate cost of materials: \$25.

#### 7a-7b (x) WATER COLOR (3-3)

Three lecture hours per week.

Prerequisite: 7a-2a; 7b-7a.

Exploration and application of watercolor media, emphasizing the experimental and interpretative. (May be repeated for credit.)

Approximate cost of materials: \$25.

#### 10 (x) INTRODUCTION TO RELATED ARTS (3)

Three lecture hours per week.

A study of the basic elements of visual arts, music and theatre. An investigation of motivations, functions and inter-relationships of the arts.

#### 12 LETTERING (2)

Two lecture hours per week.

Development of proficiency in freehand lettering with pen and brush. Imaginative interpretations of lettering styles.

Approximate cost of materials: \$15.

#### 13a (x) DRAWING I (3)

Three lecture hours per week.

A fundamental course in drawing. Emphasis on perception development, through specific drawing exercises to develop an orderly approach, a disciplined perception and an increased attention span. Dry media, pencil, charcoal and Conte crayon.

Approximate cost of materials: \$15.

#### 13b (x) DRAWING II (3)

Three lecture hours per week.

Prerequisite: 13a.

Continued development of visual perception and technique, emphasizing direct response to visual stimuli and personal interpretation of subject matter. Mixed media.

Approximate cost of materials: \$15.

#### 15 LIFE DRAWING (2)

One and one-half lecture hours per week. One and one-half hours per week of drawing laboratory.

Prerequisite: 13a-b.

Study of the gesture, contour, surfaces and aspects of anatomy of the human figure. Psycho-aesthetic factors, personal interpretation and symbolic transformation of the figure. Diverse media. (May be repeated for credit.)

Approximate cost of materials: \$15.

#### 17a (x) PRINTMAKING I (2)

One and one-half lecture hours per week plus 11/2 laboratory hours per week.

Prerequisites: 2a, 13a.

An introduction to printmaking involving processes of relief printing (woodcut, collagraphy) and intaglio etching.

Approximate cost of materials: \$25.

#### 17b (x) PRINTMAKING II (2)

One and one-half lecture hours per week plus 11/2 laboratory hours per week.

Prerequisite: 17a.

An advanced course in etching. Concentrated study of various intaglio processes such as drypoint, engraving, aquatint and lift grounds.

Approximate cost of materials: \$25.

### 19 (x) ART OF OUR TIMES (3)

Three lecture hours per week with assigned reading and reports

A survey of architecture, painting and sculpture of the 20th Century,

### 20a-20b (x) CERAMICS (3-3)

Three lecture hours per week. Three additional studio hours per week.

Prerequisite: 20a-none; 20b-20a.

Elementary clay construction including pinch, coil and slab; methods of ornamentation, glazing, firing, introduction to potter's wheel.

#### 22a-22b (x) SCULPTURE (3-3)

Three lecture hours per week. Three additional laboratory hours per week.

Prerequisite: 22a-none; 22b-22a.

A basic course in figurative and non-objective structural forms using plastic, fiberglass, metal and other media.

Approximate cost of materials: \$30.

#### 27a-27b (x) STAGE DESIGN (3-3)

Three lecture hours per week.

Prerequisite: 27a-none; 27b-27a.

**27a**—Experience in executing designs for theatrical settings. Analysis of plays and scenic problems. Emphasis upon solving the problems involved in preparing a design for presentation. No experience in drawing required.

27b—Special problems in scene design.

(This course is also taught as Drama 27a-b.)

#### 44 FINE ARTS FOR CHILDREN (3)

Three lecture hours per week

Prerequisites: None

For parents and teacher aides. A study of methods and materials useful in teaching the pre-school and primary grade child understanding and self-expression in art and music. Involves art and folk music, finger painting, clay modeling, and elementary painting and drawing.

#### 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Sophomore standing and permission of Chairman of the Fine Arts Division.

Special projects in such fields as experimental media or tours of world art centers.

#### 52 (x) FIGURE DRAWING (2)

One lecture and three lab hours per week with group and individual instruction.

Graduated problems using the clothed figure, and dealing with the drawing of the structure and proportions of the figure at rest and in motion. Through contour line, gesture and volume studies, and using different media as wash, crayons, pencil, the student acquires an ability to render a sketch of complete spontaneity and expression. (May be repeated for credit.)

# Astronomy

#### 10 INTRODUCTION TO ASTRONOMY (3)

Three lecture hours per week.

Prerequisites: High school Algebra and Geometry or permission of instructor.

A survey of astronomy including study of the earth, planets, comets, meteors, the sun, stars, the Milky Way system and galaxies, their motions and physical properties. The methods employed by astronomers in gathering information will be introduced. (This course meets the General Education requirements for physical science at many colleges and universities.)

# Bacteriology

#### 1 GENERAL BACTERIOLOGY (5)

Three lecture hours and six lab hours per week.

Prerequisite: One semester of Chemistry in college; not open to first semester freshmen. Recommended: One semester of a college course in the Biological Sciences.

History, morphology and physiology of micro-organisms with the main emphasis on bacteria, the disease process and human interests. The laboratory exercises include media making, isolation and identification of bacteria, and some of the standard methods employed in water and milk analysis. (Recommended for Agriculture, Biochemistry, Home Economics, Nursing, Sanitary Engineering, Physical Education and other Life Science majors.)

#### 10 MICROBES AND MAN (3)

Three lecture hours per week.

Characteristics of the major groups of microbes, their destruction, transmission of diseases, typical soil microbes, biology of spoilage, food preservation and sewage treatment.

# Biology

#### 2 GENETICS (3)

Three lecture hours per week.

Prerequisite: One course in the Biological Sciences or consent of instructor.

Introduction to the principles of heredity in plants and animals with specific reference to human inheritance and biochemical genetics. The importance of heredity in its evolutionary concepts is included.

# Biology (continued)

#### 10a-10b GENERAL BIOLOGY (4-4)

Three lecture hours and one three-hour lab period per week, with field trips during the regular period.

Prerequisite: 10a-none; 10b-10a.

10a—Broad principles of structure, function, evolution and inter-dependence between plants and animals, with emphasis on lower animal groups. Special attention to the study of structure and life histories of local forms.

10b—Particular emphasis on vertebrates, their structure and function, ecology and evolution, higher plants.

#### 15 ESSENTIALS OF NUTRITION (3)

Two lecture hours and one three-hour lab period per week.

Prerequisite: College course in chemistry.

Basic principles of nutrition. Utilization of food by the body, with emphasis on the role of nutrients in development and maintenance of body processes.

#### 20 MARINE BIOLOGY (3)

Two lecture hours and one three-hour lab period per week.

Prerequisite: Biology 10a or 10b, Zoology 1a or Botany with a grade of C or better.

Introduction to physical oceanography, marine animals, marine plants and marine ecology. Major emphasis is given to the natural history of marine forms, including their taxonomy, morphology and physiology. Bays, estuaries and oceans are described as habitats.

#### 40 NATURE STUDY (3)

One hour of lecture and two three-hour lab periods per week, with frequent field trips.

Prerequisite: Sophomore standing (24 units) with one course in the Biological Sciences or consent of the instructor.

Lecture, laboratory and field study of selected, common organisms, both plant and animal; natural history and distribution of Bay Area organisms.

#### 49 SPECIAL PROBLEMS (1 or 2)

Hours by arrangement.

Prerequisites: Open only to students who have completed, or are currently enrolled in one of the following: Zoology 1a-1b, Biology 10a-10b, or Botany 1. Permission of the advising instructor is required.

A problem is chosen by the student in order to lay a foundation for future research in one of the fields of Biological Science. The problem is developed into a regular scientific report.

# Botany

#### 1 GENERAL BOTANY (5)

Three lecture hours and six hours of lab per week.

Prerequisite: Biology 10a or 10b with a grade of C or better, or high school Biology with grade B or better.

Principles of Biology as illustrated by plants with emphasis on structure, physiology and reproduction in green plants.

#### 4 TAXONOMY OF VASCULAR PLANTS (3)

Two lecture hours and three hours of lab per week.

Prerequite: Botany 1, or permission of the instructor.

Survey of the classification of the vascular plants; laboratory and field work with collection and identification practice; taxonomy of the groups of vascular plants. Field trips will be scheduled on weekends.

#### 10 PLANTS AND MAN (3)

Three lecture hours per week.

An introduction to modern Biological Science, the scientist and scientific research in modern society. Basic principles of the living state as exemplified by the plants inhabiting our earth, interrelationships of both structure and function of plants, biotic interrelationship, genetics and evolution. Plants and the development of human civilizations will also be treated, as well as the role plants play in the population problems of the world.

# Business

Business courses, with the exception of Business 50, are accepted by the state colleges as elective credit in Business; however, they are principally designed to prepare the student for employment.

Students graduating with a major in the field of Business must meet the following subject requirements:

Business 50 or 51, or a satisfactory score on a Business Mathematics competency exam.

Business 55-Introduction to Business.

### 35 PERSONAL AND FAMILY FINANCE (3)

Three hours per week.

Develops understanding and skill in dealing with family and personal finance problems. Topics include: financial planning, consumer purchasing, borrowing money, savings institutions, insurance, introduction to investments, estate planning, real estate and taxes.

#### 36a CREDIT MANAGEMENT (3)

Three lecture hours per week.

The economic and social concepts of credit. Management and analysis of consumer credit from viewpoint of the creditor. Investigation of retail and cash loan credit. Collection policy and practice.

#### 36b CREDIT MANAGEMENT (3)

Three lecture hours per week.

Prerequisite: Business 36a.

Familiarization with various credit instruments. Investigation into the business use of commercial credit including criteria and method of granting credit. Commercial credit collection policies and practices.

# 47 COOPERATIVE EDUCATION (3)

Eight class sessions (including field trips).

Prerequisites: Completion of or enrollment in Business 55, concurrent enrollment in another Business course, or approval of instructor; and employment in business 10-15 hours per week.

Activities include supervised work experience, group discussion based on individual and group job problems, and selected field trips.

### 50 BUSINESS ARITHMETIC (3)

Three hours per week.

Prerequisite: For students with a percentile below 50 on the SRA Mathematics test or below 35 on the quantitative part of SCAT entrance examination.

(See Business Division requirement for Business Mathematics.)

Fundamental arithmetic operations including fractions, decimals and percentages used in ordinary problems of business.

#### 51 BUSINESS MATHEMATICS (3)

Three hours per week.

Prerequisite: A percentile of 50 or more on the Mathematics section of the SRA entrance test, or 35 or over on the quantitative part of the SCAT test, or completion of Business 50 with a grade of C or better.

Finding required quantity by use of fractional equivalents, aliquot parts, equations and formulas, ratio and proportion, formulas in percentage, simple interest, bank discount, present value, periodic payments and depreciation.

#### 55 INTRODUCTION TO BUSINESS (3)

(Required of all students majoring in terminal Business programs.) Three hours per week.

An introductory survey of the nature, organization and structure of the American free-enterprise system. A basic orientation course in business designed to develop a realization of the role of business in the economy and as an aid in selecting a field of vocational specialization.

#### 56 BUSINESS CORRESPONDENCE (3)

Three hours per week-Spring semester.

Prerequisite: Completion of or enrollment in Business English or completion of English 50a-50b.

Development of necessary writing skills for clear communication with emphasis on business letters and report writing. Stresses interest and readability of writing and persuasive techniques in addition to the prime purposes of transmitting information. Recommended for all terminal business students.

#### 58 HUMAN RELATIONS IN BUSINESS (3)

Three hours per week.

Individual self-improvement through consideration, evaluation and application of basic psychological principles in social and business relationships. Recommended for all Business majors.

#### 60 INTRODUCTION TO DATA PROCESSING (3)

Three lecture hours per week.

History of data processing; basic methods of data processing; functions of the punched card as reading, testing and selecting; the tabulating methods of data processing such as the sorter, interpreter, collator, reproducer and accounting machine; basic parts of a computer; and the concept of stored programs.

#### 63 BUSINESS ECONOMICS (3)

Three hours per week.

Introduction to the American economy from the point of view of both the businessman and consumer. The role of money and its effect on our economy; production, employment, and income; business fluctuation; economic policies used to stabilize the level of economic activities.

#### 64 BUSINESS LAW (3)

Three hours per week-Spring semester.

A broad study of the legal aspects of business transactions. The legal system, contracts, sales, security, negotiable instruments and personal property. Provides a background for personal as well as business transactions.

#### 65 SMALL BUSINESS MANAGEMENT (3)

Three hours per week-Spring semester.

Prerequisite: Business 55 or permission of the instructor.

Examination of the opportunities and hazards of small business operation; designed for business students who plan to establish or supervise a small business. Significant areas of vital interest to the prospective independent businessman are explored. Including type of operation, legal form, site location, financing, handling of personnel and over-all management procedures.

# 66 GENERAL ACCOUNTING (4)

Five hours per week.

Recommended: Completion of or concurrent enrollment in Business 50 or 51.

Application of accounting procedures for a small business using general and special journals, general ledger, subsidiary ledgers, petty cash records and payroll records for cash or accrual basis. Preparation of trial balances, work sheets, adjusting and closing entries, financial statements and individual federal income tax returns.

# 70a-70b PRINCIPLES OF TRANSPORTATION AND TRAFFIC MANAGEMENT (3-3)

Three hours per week. 70a-Fall; 70b-Spring.

Prerequisite: 70a-none; 70b-70a.

**70a**—Transportation in our economy, the transportation system and railroad development, development and regulation of transportation, theory of ratemaking and government controls, selected carrier problems and transportation policies.

**70b**—Routing, classification and special services; claims for loss, damage and delay; determination of lawful freight charges by use of rail, truck and air tariffs. Traffic management with selected shippers' problems.

NOTE: English requirement for Shorthand students: Completion of or enrollment in Business English, English 50b or English A or 1A.

#### 83a-REAL ESTATE PRINCIPLES (BASIC) (3)

Three hours per week.

Prerequisites: Concurrent registration in Business 50 or 51 is recommended.

Property, contracts, agency, listing and deposit receipts, real estate financing, mortgages and deeds, acknowledgement, recordation, liens and encumbrances, taxes, homesteads, escrows and title insurance, land description, real estate mathematics, California real estate law. Assists toward basic license preparation.

### 84 REAL ESTATE VALUATION, INVESTMENT AND MANAGEMENT (3)

Three hours per week.

Prerequisite: Concurrent registration in Business 50 or 51 recommended.

Growth and development of California. Basic real estate principles, measuring changing value of money, the real estate cycle. Estimating: costs, depreciation, taxes, maintenance and insurance, interest costs, return on investment. Leases and property management, percentage and ground leases, selecting tenants. Accounting: rules—capital gains and losses, accelerated methods of calculating depreciation charges. (Personal Use and License Preparation.)

### 90a BEGINNING SHORTHAND (5)

Five class hours and one lab hour by arrangement per week.

Prerequisites: Enrollment in or completion of Business 92a or equivalent and completion of or enrollment in Business English or English 50b, A or 1A. Open only to students with no previous training in shorthand.

Foundation course in Gregg Shorthand principles with practice in simple dictation and transcription.

#### 90b INTERMEDIATE SHORTHAND (7)

Ten class hours and one audio library lab hour by arrangement per week.

Prerequisites: Business 90a or its equivalent and completion of or enrollment in Business 92b or equivalent; completion of or enrollment in Business English or English 50b, A or 1a.

Training in vocational application of shorthand through intensive dictation and transcription with emphasis on the integration of specific secretarial skills.

#### 90c ADVANCED SHORTHAND (4-5)

Six class hours and one lab hour per week.

Prerequisites: Business 90b or its equivalent and completion of or enrollment in Business English or English A or 1a.

Intensive training in the vocational application of specific secretarial skills with emphasis on practical experience. One unit of credit may be earned by office work by arrangement.

#### 90r REFRESHER SHORTHAND (3)

Three hours per week.

Prerequisites: Enrollment in or completion of Business 92a or equivalent, and completion of or enrollment in Business English or English 50b, A, or 1a.

For students with insufficient training in shorthand to quality for Business 90b.

#### 91 BUSINESS ENGLISH (3)

Three hours per week-Fall Semester.

Fundamental English preparation for secretarial and clerical majors. Grammar, punctuation, spelling, word usage, vocabulary building and use of the dictionary. Emphasis on English of business through use of business-oriented materials.

#### 92a TYPING (3)

Five hours per week.

Prerequisite: No previous typing instruction.

An elementary course designed to develop correct typing techniques, proper care and operation of the typewriter, and basic skills in typing business letters, simple tables and manuscripts.

#### 92b TYPING (3)

Five hours per week.

Prerequisite: Business 92a with a grade of C or better or an equivalent proficiency in typewriting.

An intermediate course designed to increase speed and accuracy of typing and improve production rate of typing a variety of business problems.

#### 92c TYPING (3)

Five hours per week - Spring Semester.

Prerequisite: Business 92b with a grade of C or better, or satisfactory completion of two years of typing in high school.

Production typing with emphasis on speed and accuracy in the preparation of business and legal letters and forms, including financial and statistical reports.

#### 92r REFRESHER TYPING (3)

Five hours per week.

Prerequisite: For students with insufficient training in typing to qualify for Business 92b.

Emphasis on improving keyboard control, correct typing techniques, and developing skill through review of business letters, problems, and business forms.

#### 93 MACHINE CALCULATION (3)

Five hours per week - Spring Semester.

Prerequisite: Business 50, or permission of instructor.

Performance of arithmetic calculations in machines with special emphasis on actual business situations and problems. Three-fourths of the semester will be devoted to the operation of rotary-type calculators and touch system of operating printing caculators and one-fourth of the semester to familiarization with key-driven calculators. Recommended for all Secretarial, Merchandising and two-year Business Administration majors.

#### 100a OFFICE PROCEDURES AND OFFICE ADMINISTRATION (3)

Five class hours plus two lab hours per week - Spring Semester.

Prerequisites: Business 92b or an equivalent proficiency in typing; and completion of or enrollment in Business English, English 50b, A, or 1a. Not recommended for first semester students except by permission of instructor.

Development of skill in use of transcribing and duplicating machines; use of electric typewriters and duplicating equipment in performing office work; filing, payroll and general office work; study and application of effective procedures for improving performance of office employees.

#### 110-FUNDAMENTALS OF SALESMANSHIP (3)

Three hours per week - Fall Semester.

Covers the role and impact of personal selling in the marketing process of our business community. Considers principles and techniques employed effectively in the direct sales process. Includes sales demonstrations by guests from the direct selling field and practical sales presentations by students.

#### 116 RETAIL MERCHANDISING (3)

Three hours per week - Fall Semester.

Prerequisite: Completion of or concurrent enrollment in Business 50 or Business 51.

Retail processes emphasized include location and layout, merchandise planning and control, buying and receiving, pricing, personnel evaluation, sales promotion and customer services.

#### 120 ADVERTISING (3)

Three hours per week - Spring Semester.

Not open to first semester freshmen.

The role of advertising in our economic life with emphasis on advertising objectives and methods, creation of advertising, media and campaign strategy.

#### 124 MARKETING (3)

Three hours per week - Spring Semester.

Prerequisite: Business 55, and Business 50 or 51 (if required by test).

A broad study of marketing principles and methods applicable to both consumer and industrial goods. Major topics include consumer research, product planning, marketing policies and practices, retailing, wholesaling and price determination.

### **Business Administration**

Students graduating with a major in the field of Business Administration must meet the following requirement:

Mathematics—A percentile rating of 50 or over on the Mathematics section of the SRA entrance test or 35 or over on the quantitative part of the SCAT test, or completion of Business 50 with a grade of C or better. It is recommended that Business 50 be completed by the end of the second semester.

# Business Administration (continued)

# 1a-1b PRINCIPLES OF ACCOUNTING (4-4)

Five hours per week.

Prerequisite: 1a—none. Completion of or concurrent enrollment in Business 50 or 51 is recommended. 1b—Business Administration 1a or equivalent, with a grade of C or higher.

1a—Records, accounts and statements of proprietorship enterprises. Debit and credit theory and generally accepted accounting principles and concepts.

1b—Applications of theory, concepts and principles to partnerships and corporations. Introduction to departmental, cost and manufacturing accounting, budgeting, analysis and management decisions.

### 5 AUTOMATED ACCOUNTING SYSTEMS (EVENING COLLEGE) (2)

Prerequisite: Grade of C or better in Business Administration 1a or equivalent, or permission of the instructor. No previous data processing training or experience necessary.

Practical application of the processing of accounting data through an electronic computer system. Guest speakers and a field trip to a computer center.

### 18a-18b COMMERCIAL LAW (3-3)

Three hours per week.

Prerequisite: 18a-none; 18b-Business Administration 18a.

18a—A brief history of law, our courts, court procedure, contracts, sales and agency.

18b—The law of negotiable instruments, partnerships, corporations, personal property, real property, security transactions and introductions to wills.

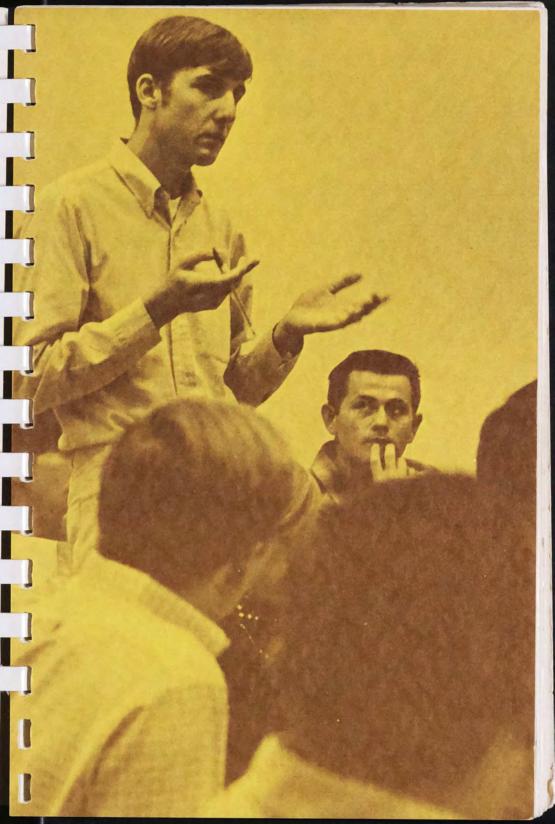
# Chemistry

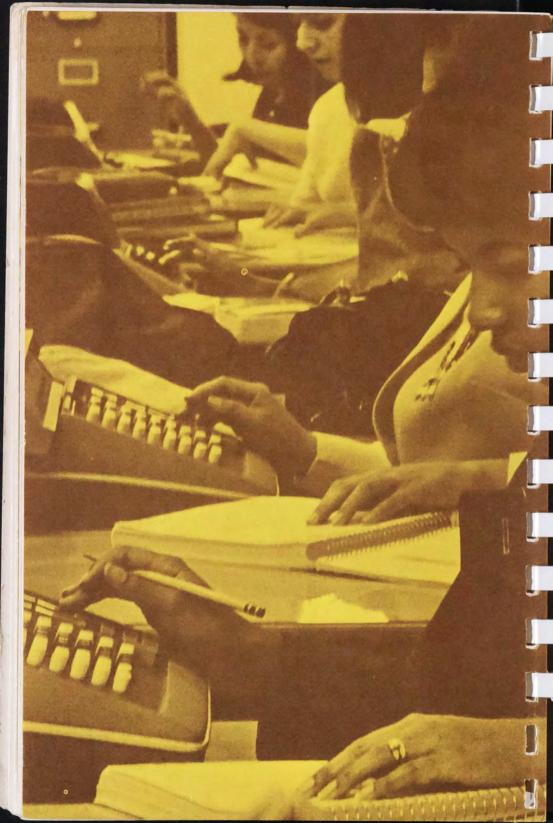
# 1a-1b GENERAL CHEMISTRY (5-5)

Three lecture hours and two three-hour lab periods per week.

Prerequisites: 1a—Chemistry 51 with a grade of C or better, or high school chemistry with a grade of B or better, and two years of algebra or one year of algebra and one year of geometry. High school physics and trigonometry are recommended. 1b—Chemistry 1a with a grade of C or better.

1a—Principles of inorganic chemistry and an introduction to organic chemistry, for students majoring in Engineering, Physical Science, Medical Arts and other science fields.





# Chemistry (continued)

**1b**—Continues the study of principles of chemistry and includes some descriptive chemistry of the elements, qualitative analysis and introduction to nuclear chemistry.

#### 5 QUANTITATIVE ANALYSIS (4)

Two one-hour lectures; two three-hour lab periods per week.

Prerequisite: Chemistry 1b (grade of C or better).

A study of the theory, calculations and common analytical procedures of quantitative analysis and the acquisition of related basic skills and techniques. (Required of most students majoring in the physical sciences, engineering, medical sciences, dentistry and some areas of life science.)

#### 8 ELEMENTARY ORGANIC CHEMISTRY (3)

Three one-hour lectures per week.

Prerequisite: Chemistry 1a (grade C or better). Chemistry 1b is strongly recommended.

The basic concepts of carbon chemistry; a study of the structure, nomenclature and reactions of the important classes of aliphatic and aromatic compounds. (Recommended for students needing only one semester of organic chemistry.)

#### 9 ELEMENTARY ORGANIC CHEMISTRY LABORATORY (3)

Two three-hour lecture-lab periods per week.

Prerequisite: Concurrent enrollment in, or completion of Chemistry 8.

Syntheses of typical organic compounds. Techniques of preparation, purification and identification including unknowns.

#### 10 SURVEY OF CHEMISTRY (3)

Three lecture hours per week.

Not open to students who have had or are taking Chemistry 1a.

A general survey of the more important theories, laws and concepts of chemistry. Chemical properties of inorganic and organic substances; their relation to atomic, molecular and ionic structure of matter; role of chemistry in current problems such as pollution, etc. While concurrent enrollment in Chemistry 10L is not required, it is strongly recommended. (This course meets the general education requirements for physical science at many colleges and universities; it meets the requirements for an introductory, non-mathematical chemistry course in several curricula.)

# Chemistry (continued)

### 10L SURVEY OF CHEMISTRY LABORATORY (1)

One recitation hour and two lab hours per week.

Prerequisite: Enrollment in Chemistry 10.

Designed as an optional laboratory period to accompany Chemistry 10. (Chemistry 10 and 10L together satisfy the requirement of several curricula for a laboratory science.)

### 12a ORGANIC CHEMISTRY (6)

Four lecture hours and two three-hour lab periods per week.

Prerequisite: Chemistry 1b with a grade of C or better.

Same as Chemistry 8 and 9 plus one additional hour of lecture per week. Recommended for students intending to take a second semester of organic chemistry.

### 51 ELEMENTARY CHEMISTRY (4)

Three one-hour lecture periods and one three-hour lab period per week.

Prerequisite: Mathematics 11, or one year of high school algebra. Concurrent enrollment in Geometry or Intermediate Algebra is strongly recommended.

Introduction to some of the theories, laws, concepts and language of Chemistry. This course should not be elected by students who need a general survey course. It is specifically planned to prepare students for Chemistry 1a. While the relatively few topics studied are developed slowly, the last part of the material covered in each topic is equal in difficulty to material studied in Chemistry 1a.

# Conservation

# 1 ESSENTIALS OF CONSERVATION (3)

Three lecture hours per week.

Consideration of the national resources of the U.S., including forests, grass-lands, wildlife, water, marine, soils, minerals and recreational problems and practices in resource management.

# Cooperative Education

### 47 COOPERATIVE EDUCATION (1-3) (Credit/No-Credit)

(See also Business 47; Education 47; Food and Lodging Technology 47; Police Science 47; Psychology 47; Radiologic Technology 1, 2, 3; Sociology 47.)

The Cooperative Education program provides off-campus, career-related work experience in combination with traditional classroom instruction. Under one plan, students in the program spend alternate semesters in college and industry. Two students hold one full-time work station. While one is in school, the other is learning on the job. A second plan allows students to enroll in a reduced academic load and be employed continuously in a parallel work experience arrangement.

Through a combined program of work and study, the relationship between theory and practical application is clearly established for the student. Cooperative work stations are available for students majoring in business, technical and liberal arts careers at Cañada College.

Further information about this program is available from your counselor or at the Cooperative Education office located in the Counseling Center at Cañada College.

## Data Processing

#### 60 INTRODUCTION TO DATA PROCESSING (3)

Three hours of lecture per week.

Brief history of data processing; functional principles and capabilities of punched card and EDP equipment; flowcharting techniques applied to simple business applications; characteristics of computer storage, data representation, and arithmetic; symbolic programming concepts; basic principles of programming and operating systems.

### Drama

Courses marked with an (x) are especially recommended for adults interested in effective use of leisure time.

# 1a (x) MASTERPIECES OF DRAMA (CLASSICAL AND RENAISSANCE) (3)

Three class hours per week.

The evolution from classical Greece to the 17th Century of physical theatres, playwriting, acting, directing and staging. In each period the principles underlying these arts will be related to dominant social, intellectual and artistic forces. Use of motion pictures, filmstrips, recordings, models and play attendance, as well as lectures and discussion.

# Drama (continued)

### 1b (x) MASTERPIECES OF DRAMA (MODERN) (3)

Three class hours per week.

Evolution of the dramatic arts from the 17th Century to the present.

### 10 INTRODUCTION TO THE THEATRE (3)

Three lecture hours per week.

A general education course designed for the beginning student in Drama and the general student to acquaint them with the various approaches to the production of a script. Lecture and demonstrations. Subject matter will include such things as: nomenclature, duties and responsibilities, traditions, script analysis, approach to a script from the director's viewpoint, the designer's viewpoint, the actor's viewpoint, and the audience viewpoint. Special lecturers may discuss publicity, performance, music and dance, motion pictures and T.V.

#### 13a-13b (x) STAGE PRODUCTION (3)

Two lecture hours and three lab hours per week.

Lectures and discussions on the theory and craftsmanship of building, rigging, painting and otherwise preparing theatrical settings. Practical experience executing the technical work of the College's dramatic presentations.

# 13c-13d ADVANCED STAGE PRODUCTION (3)

Two lecture hours and three lab hours per week.

Prerequisites: Drama 13a and 13b or their equivalent.

Lectures and special projects in stage managership, technical work, sound and lighting.

# 14a THEORY AND PRACTICE OF ACTING (3)

Four class hours per week.

Theories and techniques of acting and dramatic production, enacting of scenes and oral reading, tape recordings, pantomimes, and improvisations, vocal and physical exercises.

# 14b-14c-14d ADVANCED ACTING (3)

Four class hours per week.

Prerequisite: Drama 14a or equivalent.

Review of basic principles and skills of acting, advanced theories and techniques. Basic introduction to script analysis and directing.

# Drama (continued)

### 15 PLAY PRODUCTION (1/2 to 2)

Play rehearsal of seven weeks for each of four major productions per year, the first four weeks of which are from 3-6 p.m. daily and the last three weeks from 7-11 p.m. daily.

Prerequisite: Tryouts.

Problems of actual play production, acting. (May be repeated for credit.)

### 16 PRODUCTION SHOP (1/2 to 2)

Problems of actual play production. Scene building, lighting, costuming, makeup, properties, rigging, and stage crew operations. Hours by arrangement. (May be repeated for credit.)

### 17 (x) COSTUME-FASHION DESIGN AND PREPARATION (1/2 to 2)

Problems of actual play preparation of costumes and makeup. This course will provide costume and fashion students the opportunity for practical experience in design and execution of costumes for dramatic productions. (May be repeated for credit.)

### 20 INTRODUCTION TO DIRECTING (3)

Introduction to the theory and practice of play directing for theatre and screen. Analysis of plays to determine suitable acting, and staging styles and methods. Review of theories and techniques of acting. Study of composition, movement, tempo, climax, and the use of sound and music. Preparation of play-production plans and promptbooks. Production of scenes or short plays for stage and television. Observations and analysis of plays in the theatre and on the screen.

### 24 (x) MODERN DRAMA (3)

Three hours per week.

Prerequisite: Eligibility for English 1a.

Study, from a theatrical as well as a literary point of view, of the outstanding masterpieces of the modern theatre. Lectures; discussions; recordings by professional actors.

### 25 (x) INTRODUCTION TO SHAKESPEARE (3)

Three hours per week.

Prerequisite: Eligibility for English 1a or permission of instructor.

Emphasis upon Shakespeare's poetic and dramatic growth as a writer through a study of representative plays and poems. Reading, discussion, critical papers.

# Drama (continued)

### 26 THEATRE GRAPHICS (3)

Three lecture hours per week.

Graphic arts used in the theatre. Blueprints, transparencies, perspective, and watercolor. Lighting and painting techniques. Program design, models, projected scenery. Lectures, discussions, laboratory sessions.

### 27a-27b (x) STAGE DESIGN (3-3)

Three hours per week.

Prerequisite: 27a-none; 27b-27a.

27a—Experience in executing designs for theatrical settings. Analysis of plays and scenic problems. Emphasis upon solving the problems involved in preparing a design for presentation. No experience in drawing required.

27b—Special problems in scene design.

### 33 VOICE AND ARTICULATION (3)

Three class hours per week.

Prerequisite: Eligibility for English A or permission of the instructor.

An exploration of various modes of communicating ideas, emotions and values through a meaningful use of the voice. Lessons in vocal variety, expressiveness, resonance, articulation and pronunciation.

# 49 SPECIAL PROJECTS (1 to 2)

Special projects in such fields as directing, technical directing, dramatic literature and the integration of the theatre arts.

# Ecology

# 10 INTRODUCTION TO ECOLOGY OF THE WEST (3)

Three lecture hours per week.

Prerequisite: None, but a course in Biology, Botany or Zoology is recommended.

Introduction to the ecology of the West with emphasis on California and the Bay Area. The ecological aspects of the plant and animal groups and their controls by geology, climate, each other and by man.

### **Economics**

#### 1a PRINCIPLES OF ECONOMICS (3)

Three hours per week for lectures and discussion.

The American economy; the price system; the role of resources, machines and men in production; the place of firms in organizing private business; the operation of the banking system and the use of money in guiding economic activity; the overall trends of National Income and factors in its determination; policies for stabilization and growth in advanced and underdeveloped nations.

#### 1b PRINCIPLES OF ECONOMICS (3)

Three hours per week for lectures and discussion.

Prerequisite: None. Economics la is recommended.

Supply, demand and price determination in a market economy; the business firm's cost, revenues and price policies under conditions of competition and monopoly; the determination of wages, rent, interest and profits; international trade and finance; taxes, debts and public finance; comparative economic systems of other nations.

### 7 SURVEY OF ECONOMIC PROBLEMS (3)

Three lecture hours per wee.

Non-theoretical consideration of the major economic problems which confront the citizen today. Students who have completed Economics 1a or 1b will not receive credit for this course.

### 10 ECONOMIC HISTORY OF EUROPE (3)

Three hours per week.

Prerequisite: None. Economics 1a and 1b are recommended.

The roots of modern economic society will be traced to their European origins. The rise of mercantilism, the market system, modern industrialism will be sketched against the ancient and medieval background. Attention will be given to 20th Century interwar and postwar developments, including recent movements toward European economic union.

# Economics (continued)

# 11 ECONOMIC HISTORY OF THE UNITED STATES (3)

Three hours per week.

Prerequisite: None. Economics 1a and 1b are recommended.

The origin and development of the American economy from colonial times to the present. Themes will include the basis for industrial growth, land and resource use, the transportation revolution, the development of money and banking machinery, changing trade patterns, the rise of organized labor, the role of government in aiding economic development and stabilization.

## 14a LABOR ECONOMICS (3)

Three hours per week for lecture and discussion.

Prerequisite: Economics 1a and 1b or consent of instructor.

The first half of the course is concerned with the composition of the labor force, the history, structure, philosophy and objectives of the trade union movement and the development of public control of labor relations. The second half is devoted to the economics of the labor market, including problems of labor supply, labor mobility, labor market organization, employment and unemployment, wage determination and economic security.

# 27 PROBLEMS OF UNDERDEVELOPED AREAS (3)

Three lecture hours per week.

A broad survey of contemporary problems of underdeveloped areas, concentrating on economic problems. The course will investigate the following topics: (1) an introduction to contemporary conditions in Asia, Africa and Latin America; (2) social and economic problems at the local or village level, with case studies; (3) economic and political problems at the national level, with special reference to economic development policy; (4) problems of poverty and underdevelopment in America today.

# 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in economics and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

For Economic Statistics see Statistics.

# Education

#### 1 INTRODUCTION (2)

Two hours of lecture or discussion per week.

This course is designed primarily for those who wish to explore teaching as a possible career and secondarily for general students who are interested in knowing more about American public education. The course considers career opportunities in education, the financial and legal aspects of teaching, the organization of the public school systems, teacher education and teacher certification. Emphasis is placed on career planning for careers in education.

### 2 THE TEACHER ASSISTANT (2)

Two lecture hours per week.

The basic course for the teacher assistant. The role, responsibilities and ethical considerations of the teacher assistant, his relationship to the professional teacher, the principal and the student; the clerical, supervisory and teaching aspect of the position.

Field experience (Education 47—Cooperative Education) must be taken in conjunction with this course.

### 3 READING IN THE PUBLIC SCHOOLS (3)

Three lecture hours per week.

Brief history of reading, physiological and psychological basis of reading, philosophy of reading instruction, individual reading instruction, group reading instruction, acceleration problems in reading, multi-media approach in reading, teacher and teaching assistant variables in reading, facts and fallacies about reading readiness, review of research findings on reading instruction. Purpose: Training course in reading instruction for teaching assistants.

May be taken as English 3.

## 47 COOPERATIVE EDUCATION (1-3)

By arrangement.

Supervised field experience.

### 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in Education, and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

# Engineering

Students majoring in Engineering should refer to the two-year program outlined under "Suggested Curricula."

# 10 THE ENGINEERING PROFESSION (2)

Two lecture hours per week.

Definition of engineering as a profession, its ethics and its scholarship. Description of its branches and functions with their historical development. Relationship of engineers to scientists and technicians. Study of current and future role of engineers in legal, political, social, and ecological aspects of the national and world communities. Course directed to both technical and non-technical majors. (This course meets the general education requirements for physical science at many colleges and universities.)

### 20-DESCRIPTIVE GEOMETRY (2)

Six lab hours per week.

Prerequisite: Concurrent registration in Mathematics 29 or Calculus.

Lectures and drafting-room work orthographically solving engineering problems in three-dimensional space. Introduction to graphic statics, vector properties, Maxwell's diagrams, space-force polygons.

# 22 ENGINEERING GRAPHICS (2)

Six lab hours per week.

Prerequisites: Engineering 20 and Mathematics 30.

Numerical and graphical calculus. Nomography. Introduction to creative design and the techniques of design optimization. Design project.

# 35 VECTOR STATICS (3)

Three lecture hours per week.

Prerequisites: Physics 4a and Mathematics 31. Engineering 20 is recommended.

Plane and space force systems; equilibrium problems covering structures, machines, distributed force systems, friction, and virtual work; analytical and graphical methods.

# Engineering (continued)

### 36 VECTOR DYNAMICS (3)

Three lecture hours per week.

Prerequisites: Engineering 35 and concurrent registration in Mathematics 33.

Relations of motion, work, energy, impulse, momentum, impact. Simple harmonic motion, damped vibratory systems. Curvilinear motion, rigid body rotation, gyrodynamics of rigid bodies. D'Alembert's principle, generalized coordinates, Hamilton's principle, Lagranges' equations, introduction to celestial mechanics. Elementary fliud mechanics.

### 37 STRENGTH OF MATERIALS (3)

Three lecture hours per week.

Prerequisites: Engineering 22 and Engineering 35.

Elastic behavior of crystalline materials, and rudiments of plastic behavior of common engineering materials. Stress and strain relationships. Analysis of the effects of internal and external forces on flexible bodies and structural assemblies. Failure modes. Analytical structural design techniques.

#### 38 CIRCUITS AND DEVICES (3)

Prerequisites: Physics 4b, concurrent registration in Mathematics 32 or above.

Introduction to electrical and electronic engineering. Passive circuit elements, network theory, natural and forced responses. Characteristics and circuit models of active electronic devices. Elementary amplifier theory, servo loops, instruments.

# English

Placement Test—required of all entering freshmen. Students transferring to Cañada College with credit in transfer level English (a course equivalent to English 1a—Reading and Composition) will not be required to take the test. It is designed to determine the entrant's ability in reading and the mechanics of writing, and to help determine placement of students in English courses.

Brochure—Students are urged to obtain a brochure, available at the Registrar's desk, describing the various English courses as they are taught by individual instructors.

# 1a READING AND COMPOSITION (3)

Three hours per week.

Prerequisite: Eligibility as determined by Placement Test or transcript.

Practice in writing based on a study of the form and content of the essay.

# 16 INTRODUCTION TO LITERATURE (3)

Three hours per week.

Prerequisite: English 1a.

Study of literary types: short story, drama, poetry and the novel. Themes based on reading and class analysis.

English 1a-1b may also be taken through the American Studies Program in conjunction with History 17a-17b.

# 2 SOPHOMORE COMPOSITION (3)

Three hours per week.

Prerequisites: English 1a and English 1b.

Practice in writing research and critical papers based upon extensive and intensive reading of literature and related critical works.

# 9a-9b CREATIVE WRITING (2-2)

Two hours per week.

Prerequisites: 9a-English 1a or permission of the instructor. 9b-English 9a.

The craft of writing short stories, sketches and poetry.

# 23 INTRODUCTION TO POETRY (3)

Three hours per week.

Prerequisite: English 1b or permission of the instructor.

Discovery and study of the experience of a poem. Intensive and extensive reading, discussion, papers.

# 24 MODERN DRAMA (3)

Three hours per week.

Prerequisite: Eligibility for English 1a or permission of the instructor.

Study, from a theatrical as well as a literary point of view, of the outstanding masterpieces of the modern theatre. Lectures; discussion; recordings by professional actors. (Also listed under Drama.)

### 25 INTRODUCTION TO SHAKESPEARE (3)

Three hours per week.

Prerequisite: Eligibility for English 1a or permission of the instructor.

Emphasis upon Shakespeare's poetic and dramatic growth as a writer through a study of representative plays and poems. Reading, discussion, critical papers.

(Also listed under Drama.)

### 26 MODERN NOVEL (3)

Three hours per week.

Prerequisite: English 1a or permission of the instructor.

Study of novels of the late 19th and 20th Century. Reading, discussion and critical papers.

### 27 CONTEMPORARY LITERATURE (3)

Three hours per week.

Prerequisite: English 1b or permission of the instructor.

A study of selected fiction, poetry and drama of the 20th Century. Lectures, discussions, related reading, writing of critical papers.

#### 28a FILM STUDY AND APPRECIATION (3)

Two lecture hours and two lab hours per week.

Study of significant motion pictures as an art form with emphasis on structure of film and the technique of film making. Screening of films followed by discussion and/or written analysis relating to appreciation and understanding of film as a communicative medium. Production of films by students optional.

#### 28b MOTION PICTURE PRODUCTION (3)

Two hours lecture and three lab hours per week.

Prerequisite: English 28a or permission of the instructor.

A theoretical and practical course on the art and technique of film making. Working from the conceptual stage, students will prepare scenarios, scripts, and story boards. Using super 8mm. equipment, they will shoot film, edit their footage into a meaningful visual form and ultimately produce short films.

### 29 THE CONTEMPORARY WRITER (1)

One and one-half hours per week.

An opportunity for students to meet with writers and to hear, read and study their work. A study of current literature as a product of contemporary life.

# 30 MAJOR FIGURES IN AMERICAN LITERATURE (3)

Three hours per week.

Prerequisite: English 1a or permission of the instructor.

Study of the writings of some of the major figures in American literature. Intensive reading, lectures, discussion, papers.

### 31a AMERICAN LITERATURE (3)

Three hours per week.

Prerequisite: English 1a or permission of the instructor.

Study of American literature from the beginning through Mark Twain. Lectures; reading, analysis and discussion of selected works; papers.

### 31b AMERICAN LITERATURE (3)

Three hours per week.

Prerequisite: English 1a or permission of the instructor.

Study of American literature since Mark Twain. Lectures; reading, analysis and discussion of selected works; papers.

# 42a MASTERPIECES OF CLASSICAL AND EUROPEAN LITERATURE (3)

Three hours per week.

Prerequisite: Eligibility for English 1a or permission of the instructor.

Selections from the literature of ancient Greece through Renaissance Europe will be read, analyzed, discussed and, hopefully, enjoyed. Group work, oral reports, papers.

# 42b MASTERPIECES OF CLASSICAL AND EUROPEAN LITERATURE (3)

Three hours per week.

Prerequisite: Eligibility for English 1a or permission of the instructor.

Study of selected European novels, short stories and plays from the 17th Century to the present. Reading, analysis and discussion; written reports, oral readings and lectures.

# 43 AFRO-AMERICAN LITERATURE (3)

Three hours per week.

Historical and literary survey of Afro-American literature emphasizing principal authors and their works from the 19th Century to the present. Lectures and discussions based on readings of poetry, short stories, novels and drama; written reports.

### 44 MEXICAN LITERATURE IN TRANSLATION (3)

Three hours per week.

Study of the literature of Mexico: the first chronicles, the colonial period, writers of the Independence, the Romantic period, and contemporary authors.

### 46a SURVEY OF ENGLISH LITERATURE (3)

Three hours per week.

Prerequisite: English 1b or permission of the instructor.

Study of the typical works of major English writers from Chaucer to the end of the 17th Century.

### 46b SURVEY OF ENGLISH LITERATURE (3)

Three hours per week.

Prerequisite: English 1b or permission of the instructor.

Study of the typical works of representative English writers from the early 18th Century to the present. The 19th Century will be given the most specific survey, and the survey of the 18th and 20th Centuries will be a more general nature. Discussions, lectures, recordings.

### 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Previous or concurrent work in college English; approval of instructor and the Chairman of the English Division.

Students will present a paper or papers dealing with a specific topic in literature or language, a topic beyond the scope of offered courses.

#### 50a READING AND INTERPRETATION (4)

Four hours per week.

Prerequisite: Eligibility as determined by the English Placement Test or by permission of instructor.

Reading of short stories, informal essays and books of non-fiction; study of vocabulary and spelling; written exercises, quizzes and compositions; class discussions.

# 50b READING AND INTERPRETATION (4)

Four hours per week.

Prerequisite: English 50a.

Reading and study of plays, novels, poetry, stories. Vocabulary study. Quizzes and short compositions based upon reading.

# 57 ENGLISH AS A SECOND LANGUAGE (5) (Credit/No Credit)

Five hours per week.

Prerequisites: Assignment by faculty personnel and by in-class test.

Study of English grammar and composition, drill in oral and written vocabulary, sentence structure and English idiom. May be repeated once for credit.

(Two semesters of English 57 satisfies the English requirement for the AA degree.)

# 66 SCIENCE FICTION AND FICTION OF FANTASY (3)

Three hours per week.

A study of European and American science-fiction and fantasy of the 19th and 20th Centuries. Popular writers will be included as well as established literary figures.

# 67 READING LABORATORY (1) (Credit/No Credit)

Five hours per week for eight weeks.

Individual and small group work in developmental or remedial reading, with some emphasis on study skills. A variety of programmed materials, aids and machines are available to help improve vocabulary, comprehension and reading rate. Instruction in methods of word attack and practice in developing flexible reading habits. Students successfully completing the course will receive one unit of credit but no letter grade. May be repeated for credit as often as necessary.

# 68 WRITING LABORATORY (1) (Credit/No Credit)

Three hours per week.

Work in the development of composition skills, primarily through individual and tutorial instruction. Various audio-visual and programmed materials are used to improve and stimulate the student's writing, with particular emphasis placed upon organization, quality and support of ideas, effectiveness of language and mechanics of the sentence. Students successfully completing the course will receive one unit of credit but no letter grade. May be repeated for credit as often as necessary.

### Environment

### 1 INTRODUCTION TO THE PHYSICAL AND BIOLOGICAL ASPECTS (3)

Three lecture hours per week.

An introduction to the concept of the natural environment, including the factors of water, atmosphere, geography, biological limiting influences, tolerances, ecology and waste disposal.

Two field trips are required.

### 2 INTRODUCTION TO THE HUMAN AND SOCIAL ASPECTS (3)

Three lecture hours per week.

A course designed to examine the human and social aspects of the environmental problem. Looking at past, present and future qualities and values of life, this course will examine such issues as: population, operation of governmental agencies, planning, obstacles to change, transportation, housing, inter-personal relations and group relations.

This course is designed as a companion to Environmental Curriculum 1, as a General Education course, and as an introduction to careers in the environmental field.

### 5a LATIN AMERICA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture and its relationship to his physical environment. (May be taken as Geography 5a.)

### 5b AFRICA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture in its relationship to his physical environment. (May be taken as Geography 5b.)

#### 5c ASIA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture in its relationship to his physical environment. (May be taken as Geography 5c.)

### 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Previous or concurrent work in Environment and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

# Food and Lodging Technology

Students majoring in Food and Lodging Technology must consult with the Department before completing registration.

### 47 COOPERATIVE EDUCATION (1-3)

Prerequisite: Completion of Food Technology 50 or 51, or approval of instructor. Credit for supervised work experience in the hospitality business. A minimum of five hours each week of work in a job related to the food services business is required for each unit of credit.

### 49 FOOD SERVICE RESEARCH (1-2)

Three or six hours per week by arrangement.

Special research into current problems and their relation to the future of the food service industry and its allied suppliers. The problems to be investigated and reported are varied and changing; the specific areas of research will be determined by the industry itself as it grows, plans and changes.

# 50a-50b QUANTITY FOOD PREPARATION (4-3) 51a-51b-51c QUANTITY FOOD PREPARATION (1-1-1)

50a-Twelve lab hours each week by arrangement.

50b-Nine lab hours each week by arrangement.

51a, b, c-One lecture hour each week.

Prerequisite: Students must enroll in both 50a and 51a or 50b and 51b concurrently. Students beginning the program in spring semester should enroll in 51c and 50a or 50b.

Training and experience in basic quantity food preparation and service. Laboratory hours by assignment (to fit students' prior foods training and outside work requirements). Rotation through all kitchen and cafeteria stations.

### 52 FOOD PREPARATION SUPERVISION (3)

Nine lab hours per week.

Prerequisites: Food Technology 50a and 50b.

Experience in intermediate management. The principles of supervising while being supervised.

### 53 CATERING AND SPECIAL FUNCTIONS (2)

Six lab hours per week.

Prerequisites: Food Technology 50 and 51.

Preparation and service for on- and off-premise feeding at special hour.

# Food and Lodging Technology (continued)

## 54a-54b ADVANCED FOOD PREPARATION (3-3)

Nine lab hours per week.

Prerequisites: Food Technology 50 and 51.

Emphasis on special functions, gourmet item preparation and service.

### 55 MODERN BAKING (2)

One lecture per week; three lab hours per week.

Prerequisites: Food Technology 50 and 51 or permission of the instructor.

Experience in the methods of baking in most modern food service.

# 60a-60b QUANTITY FOOD PURCHASING (2-2)

Two lecture hours per week.

Prerequisites: 60a—Concurrent enrollment in Food Technology 50 or 51; 60b—60a and concurrent enrollment in Food Technology 50 or 51.

Familiarization with the kinds and qualities of foods available, the market, standard purchasing methods and standard methods of receiving and storing of all available foods.

### 65 MENU PLANNING (2)

Two lecture hours per week - Fall Semester.

The essentials of proper menu planning and menu costing to plan for profit.

### 66 FOOD AND BEVERAGE COST CONTROL (2)

Two lecture hours per week - Spring Semester.

The essential systems and methods of cost control procedures.

### 68 SANITATION AND SAFETY (2)

Two lecture hours per week - Fall Semester.

Required first semester.

The basic knowledge needed to protect the food service worker and the public.

### 70 FOOD MANAGEMENT PROBLEMS (2)

Two lecture hours per week - Fall Semester.

Prerequisite: Sophomore standing in Food Technology Program.

A general course including personnel, financial, public relations and other management problems.

# Food and Lodging Technology (continued)

### 75 HOTEL AND RESTAURANT ACCOUNTING (3)

Three lecture hours per week.

Prerequisites: Food Technology 50 and 51, Accounting 66.

Applying basic accounting to the hospitality industry variations.

### 80 EQUIPMENT LAYOUT AND DESIGN (4)

Two lecture hours and six lab hours per week - Spring Semester.

Prerequisites: Sophomore standing in Food Technology Program, Essentials of Drafting 14 or equivalent. Recommended: Fundamentals of Salesmanship 11 Equipment specifications and performance; layout principles of material attraffic flow.

### 85 FOOD SERVICE COMPUTER SYSTEMS (4)

Two lecture hours and six lab hours per week - Spring Semester.

Prerequisites: Sophomore standing in Food Technology Program, Introduction to Data Processing 60. Recommended: Concurrent enrollment in Basic Comput Programming 63a.

Application of electronic data processing to food service problems of menu planning, purchasing and inventory control, and hotel front office controls

#### 90 FOOD TECHNOLOGY AND ADMINISTRATION (1)

Two-hour lab and seminar per week for all students enrolled in Food Technology Program. Required each semester.

Total food industry aspect covered by guest speakers from purveyors of food equipment and supplies, airlines, industrial, hospital and placement fields allied to the food preparation and service industry.

#### 91 INTRODUCTION TO HOTEL-MOTEL MANAGEMENT (2)

Two lecture hours per week.

The course offers the beginner basic information on the lodging industits size and scope, the nature of the market it serves, types of establishments, how hotels and motels are organized and the purposes and functions of each department, and the importance of the "hospitality attitude."

### 92 HOTEL-MOTEL ORGANIZATION AND ADMINISTRATION (2)

Two lecture hours per week.

Traces the transformation of the traditional hotel into a modern busineenterprise, evaluates the benefits of professional management and explains the use of effective organization.

# Food and Lodging Technology (continued)

### 93 FRONT OFFICE PROCEDURE (3)

Two lecture hours and three lab hours per week.

Prerequisites: Food Technology 91 or 92.

Fundamental principles of management. Routine procedures and recording techniques peculiar to the hotel/motel operation. All phases of front office operation: receiving guests, sales and registration procedures, handling mail and information, and checking out guests.

for 1 Introduct.

# Forestry

### 1 INTRODUCTION TO FORESTRY (3)

Three lecture hours per week.

Study of the forest as a biotic system, with emphasis on trees, plants, animals, the forest environment and their ecological relationships. Survey of the forests of the United States and the world.

### 6 FOREST SURVEYING INSTRUMENT (3)

Two lecture hours and one three-hour lab period per week.

Use of basic forest engineering equipment—hand compass, staff compass, Abney level, tapes, aneroid barometer, transit and level. Measurement of distance, direction and elevation. Field and office assignments involving forest surveys.

## French

Language Laboratory and Listening Requirement—Students enrolled in certain courses in foreign language are asked to make use of the language laboratory. Imitation, response and independent practice are an integral feature of the study of a foreign language at the College.

### 1 ELEMENTARY FRENCH (5)

Five class hours per week.

Conversation in the language, dictation, reading, study of the fundamentals of grammar and the writing of simple French exercises. The student is urged to make extensive use of the listening facilities in the language laboratory.

# French (continued)

### 2 ADVANCED ELEMENTARY FRENCH (5)

Five class hours per week.

Prerequisite: Completion on the college level of the first semester with a passing grade or assignment by the English-Foreign Language Division.

Conversation, dictation, further study of grammar and sentence structure; study of cognates, derivatives and idioms, reading of short stories. The student is urged to make extensive use of the listening facilities in the language laboratory.

### 3 INTERMEDIATE FRENCH (5)

Five class hours per week.

Prerequisite: Completion on the college level of the first two semesters with a passing grade or assignment by the English-Foreign Language Division.

Reading of short stories, play or novels; review of grammar, conversation, composition, dictation. The student is urged to make extensive use of the listening facilities in the language laboratory.

### 4 ADVANCED INTERMEDIATE FRENCH (3)

Three class hours per week.

Prerequisite: Completion on the college level of the third semester with a passing grade or assignment by the English-Foreign Language Division.

Reading of selections from French literature and reading of a contemporary novel; further practice of conversation and composition; continued review of principles of grammar; analysis of idioms.

#### 8a-8b FRENCH CONVERSATION (2-2)

Two class hours per week.

Prerequisite: French 4, or French 3 with a passing grade and permission o instructor. (Native speakers are ineligible.)

Practice in conversation based on French customs and culture.

#### 25a-25b ADVANCED FRENCH (3-3)

Three class hours per week.

Prerequisites: 25a—Completion of the fourth semester with a passing grade o assingnment by the English-Foreign Language Division; 25b-25a.

Reading and discussion of works of French literature. Continued review of principles of grammar.

# French (continued)

### 30 INDIVIDUAL READING (1-2)

Conference periods for oral reports. Time to be arranged. A minimum of three hours of reading per each unit of credit is required weekly.

Prerequisites: French 4 and permission of instructor.

Reading of French classics, contemporary literature or recent periodicals.

# Geography

### 1a PHYSICAL GEOGRAPHY (3)

Four hours per week for lecture, discussion and demontstration.

Prerequisite: High school geometry is highly recommended.

Basic characteristics of maps, the earth's grid, seasons, time, weather and climate, land forms, soil, oceans, natural vegetation and the interrelationship of all these basic factors. Maps and the regional concept are the primary tools for this study.

# 16 CULTURAL GEOGRAPHY (3)

Three hours per week for lecture, discussion and demonstration.

By using maps and the concept of regions, this course attempts to show and describe the areal distribution of the most important parts of man's culture. Emphasis is placed on the way he makes a living. Consideration is also given to the origin and development of man, races, population distribution and settlement patterns.

# 4 ECONOMIC GEOGRAPHY (3)

Three hours per week for lecture, discussion and demonstration.

In part, an investigation and description of the basic resources in the different parts of the world. Also, an attempt will be made to evaluate the effects of different cultural and physical environments upon the utilization of these resources. More specifically, this course will deal with the industrialized areas such as the United States and Europe.

# 5a LATIN AMERICA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture in its relationship to his physical environment. (May be taken as Environment 5a.)

# Geography (continued)

### 5b AFRICA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture in its relationship to his physical environment. (May be taken as Environment 5b.)

### 5c ASIA: MAN AND HIS ENVIRONMENT (3)

Three lecture hours per week.

A regional study of man and his culture in its relationship to his physical environment. (May be taken as Environment 5c.)

### 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Previous or concurrent work in geography, and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

# Geology

Each course in Geology is accepted by the University of California in partial satisfaction of the 12 units required in Natural Science. Geology 1a is for science majors; Geology 10 is for non-science majors.

# 1a GENERAL GEOLOGY: DYNAMICAL AND STRUCTURAL (4)

Not open to students who are taking Geology 10.

Three lecture hours and one three-hour lab period weekly.

Prerequisite: Elementary chemistry and elementary geometry are highly recommended.

An introduction to the nature and structure of the materials composing the earth and of the various processes which shape the earth's surface.

#### 16 HISTORICAL GEOLOGY (4)

Three lecture hours and one three-hour lab period weekly.

Prerequisite: Geology 1a or Geology 10.

Geological history of the earth and the evolution of its animal and plant inhabitants.

# Geology (continued)

# 10 SURVEY OF GEOLOGY (3)

Not open to students who have taken or are taking Geology 1a.

Three lecture hours and one section meeting weekly.

Basic principles of igneous, sedimentary and metamorphic geology. Lectures on rocks, minerals and the origin of the earth, continents and mountains. A brief sketch of the geological history of the earth and evolution of its animal and plant inhabitants. (This course meets the general education requirements for physical science at many colleges and universities.)

#### 49 SPECIAL PROBLEMS (1-2)

Admission only by consent of the instructor. Hours to be arranged on an individual basis.

Prerequisites: Geology 1a and Geology 1b.

Field and/or lab and/or library studies centered in a geologic, paleontologic or mineralogic problem of interest to the student.

### German

### 1 ELEMENTARY GERMAN (5)

Five class hours per week.

Study of and practice in the basic forms and patterns of German; development of a satisfactory pronunciation; learning and using vocabulary of high frequency; reading of simple German texts. Students are urged to make use of the listening facilities in the language laboratory.

### 2 ADVANCED ELEMENTARY GERMAN (5)

Five class hours per week.

Prerequisite: German 1 with a passing grade or assignment by the English-Foreign Language Division.

A continuation of work begun in German 1, with continued practice in listening, speaking, writing and reading (of more difficult texts.) Students are urged to make use of the listening facilities in the language laboratory.

# 3 INTERMEDIATE GERMAN (5)

Five class hours per week.

Prerequisites: German 2 with a passing grade or assignment by the English-Foreign Language Division.

Reading of modern writers; study of more advanced grammar and syntax; intensive vocabulary work; continued practice in speaking and writing. Students are urged to make use of the listening facilities in the language laboratory.

# German (continued)

### 4 ADVANCED INTERMEDIATE GERMAN (3)

Three class hours per week.

Prerequisite: German 3 with a passing grade or assignment by the English-Foreign Language Division.

The emphasis is on reading; materials covered range from the period of Goethe to recent times. Study of word families, derivatives, compounds, idioms and sentence patterns.

### 30 INDIVIDUAL READING (1-2)

Prerequisite: Permission of the instructor; the student is expected to have completed at least German 4 or the equivalent.

The student is required to report on 54 hours of reading for each unit of credit; the student's preference largely determines the choice of reading materials.

# Guidance

### 1 INTRODUCTION TO COLLEGE (1)

Two hours per week. (8 weeks).

Open to all students but strongly urged for students whose counselors recommend it.

Acquaintance with campus facilities and activities, improvements of study habits and basic skills needed in college subjects, educational planning for ultimate vocational goal. Self-appraisal by means of tests measuring potential abilities, interests, aptitudes and past achievement as well as personal, emotional and social adjustment.

### 10 INTRODUCTION TO COLLEGE (2)

Two hours per week.

Intended primarily for students in the Student Development Program.

Acquaintance with campus facilities and activities, improvements of study habits and basic skills needed in college subjects, educational planning for ultimate vocational goal. Self-appraisal by means of tests measuring potential abilities, interests, aptitudes and past achievement as well as personal, emotional and social adjustment.

# Health Education

#### 1 GENERAL (2)

Two class hours per week.

Required of all candidates for graduation.

Study of factors which influence personal, family and community health in the light of current scientific information. Attention given to the value of good health practices, preventive aspects of some of the most prevalent diseases and contemplated experience in social development and marriage.

#### 4 FIRST AID (1)

Two hours per week for eight weeks.

First Aid is the immediate, temporary treatment given in case of accident or "sudden illness before the services of a physician can be secured. This course is required of all students not presenting standard Red Cross certificates. Not required of those who have graduated from a California public high school since 1952.

# History

### 4a HISTORY OF WESTERN CIVILIZATION (3)

Three hours per week

The rise and decline of the civilization of the ancient world, the rise of Christianity, the growth and decline of Medieval society, the Renaissance, the Reformation and the opening of the modern world.

### 46 HISTORY OF WESTERN CIVILIZATION (3)

Three hours per week.

Prerequisite: None History 4a is recommended.

The rise of modern Europe: the Enlightenment, the French Revolution and the growth of Liberalism. The emergence of modern society: economic problems of industrialization, development of modern ideologies, and the World Wars and international experiments of the 20th Century.

# 4c-HISTORY OF AMERICAN CIVILIZATION (4)

Three lecture hours and one discussion hour per week.

Prerequisite: None. History 4a is recommended.

The colonial settlement of North America, the Enlightenment, the Age of Revolution and the growth of democracy. the problems of industrialization, the emergence of modern society, the effects of the expansion of the 19th and 20th Centuries upon the culture of America and the role of the United States in the modern world.

History 4c may be used in fulfilling the American Institutions requirement.

# History (continued)

### 5 HISTORY OF ENGLAND (3)

Three lecture hours per week.

A survey, including in its scope the more important political, constitutional, economic, social and cultural phases of the history of the English people. (This course, though especially designed for pre-legal and English majors, is also of great value to the general student interested in international relations or the background of American culture.)

### 6a AFRICAN CIVILIZATIONS (3)

Three lecture hours per week.

The period prior to 1800. The sources of African history, Africa in ancient times, the spread of Islam, the era of empires and city-states, Africa and the first period of European expansion, kingdoms of the savannah and forest coastal tropical Africa and the Atlantic world.

### 6b AFRICAN CIVILIZATION (3)

Three lecture hours per week.

The period after 1800. African civilizations and cultures, political reorganizations, developments in Northern Africa, 19th Century Jihads, interaction of Africa and Europe, the European scramble for Africa and its partitioning, consolidation of colonial control and the rise of African nationalism.

### 8a HISTORY OF AMERICAS (3)

Three lecture hours per week.

A general survey of the history of North and South America, from the times of the pre-Columbian Indian civilizations, through the European conquests, to the ages of the revolutions against the European colonizing powers. Includes a comparison of the U.S. and Latin American constitutions.

History 8a may be used in fulfilling the American Institution requirement.

### 86 HISTORY OF AMERICAS (3)

Three lecture hours per week.

Prerequisite: None. History 8a is recommended.

A general survey of the history of Latin America from about 1830 until the present. Emphasis is placed upon the problems of the Western Hemisphere, and also upon the development during the crucial period which began with the outbreak of World War II and has continued until contemporary times.

# istory (continued)

## 9a ASIAN CIVILIZATION-INDIA AND SOUTHEASTERN ASIA (3)

Tree lecture hours per week.

general survey of the historical and cultural development of India, Pakistan, and the southeastern Asian countries—Thailand, Vietnam, Burma, Indonesia and Ceylon. Special emphasis will be on their religious, political and artistic evelopment from ancient to modern times. An attempt will be made to show a common cultural theme among them and how they respond to the impact of the Western and Chinese civilizations.

# 96 ASIAN CIVILIZATION—EASTERN ASIA (3)

ree lecture hours per week.

general survey of the historical and cultural development of the Eastern Asian countries—China, Korea and Japan. Special emphasis will be on their philosophical, religious, political and artistic development from ancient to odern times. An attempt will be made to show the common cultural theme nong these countries and how they respond to the impact of the Western World.

# 17a UNITED STATES HISTORY (3)

ree hours per week.

survey of English colonization along the Atlantic Coast, the westward expansion of the colonists, the Revolution, the formation of the Constitution, the Federalist and Jeffersonian systems, the reign of Andrew Jackson, the ivery issues and Civil War. Economics, political, social and cultural developants of the period are included.

# 176 UNITED STATES HISTORY (3)

Three hours per week.

requisite: None. History 17a is recommended.

rile course continues the work of 17a, developing the reconstruction period, industrial expansion, social and economic development, and the foreign—plicies of the U.S. through World War II.

tory 17a-17b may be used in fulfilling the American Institutions requirement and may also be taken through the American Studies Program in conjunction with English 1a-1b.

# History (continued)

#### 22 CALIFORNIA HISTORY (3)

Three hours per week.

A study of the qualities and values of life in California today with inquiry into how and why such social, economic and political qualities have developed out of the past. This course includes an examination of (a) the Indian, Spanish-American and American periods; (b) the environment; (c) the institutions and functions of state and local politics. Where possible, individual research projects, field trips and other forms of student participation beyond the classroom will be encouraged. (This course satisfies the requirement in State and Local Government.)

### 24 AMERICAN FOREIGN POLICY (3)

Three hours per week.

An historical inquiry into the background of major problems in foreign policy of our own day. Special attention is given to the period since World War II.

#### 26 20TH CENTURY AMERICAN HISTORY (3)

Three lecture hours per week.

Major economic, political, social and intellectual developments since the United States emerged as a major power in the turn of the century. (History 26 may be used in fulfilling the State and Local Government requirement.)

#### 31 HISTORY AND GOVERNMENT OF SAN MATEO COUNTY (3)

Three lecture hours per week.

Designed to provide the student with (1) an understanding of the social, economic and political development of San Mateo County, and (2) an opportunity to study first-hand the functions and institutions of county and city government. In addition, instruction will emphasize historical research techniques, using local primary sources of information whenever possible.

### 33 THE AFRO-AMERICAN IN U.S. HISTORY (3)

Three hours per week.

Prerequisite: None, but History 17a or sophomore standing is strongly recommended.

A course dealing with the social, economic and political facts as they relate to the Afro-American. Race relations will be analyzed and special emphasis will be given the history of the Afro-American.

#### 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in history and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

### Home Economics

# 5 CAREERS IN HOME ECONOMICS (1)

One lecture hour per week.

Exploration of areas of employment, opportunities and responsibilities of the home economist. Field trips and discussions with home economists in the field.

### 6 CONSUMER IN THE MARKET PLACE (2)

Two lecture hours per week.

Develops skill in purchasing by studying standards and qualities in foods, clothing, home furnishings. Study of legal problems, rights and responsibilities of the consumer.

### 7 HOME MANAGEMENT FOR EFFECTIVE LIVING (2)

Two lecture hours per week.

Study of the use of time, energy, and resources in household and family management. Problem-solving approach to management. Use, care and repair of equipment and furnishings.

#### 9 NUTRITION (2)

Two one-hour lectures per week.

Basic concepts of nutrition and their relationship to health of people of all ages with application to family meal planning and the food budget.

#### 15 ESSENTIALS OF NUTRITION (3)

Two one-hour lectures and one three-hour lab per week.

Prerequisite: College course in chemistry.

Basic principles of nutrition. Utilization of food by the body, with emphasis on the role of nutrients in development and maintenance of body processes, including a personal nutritional evaluation.

#### 20a BEGINNING CLOTHING (3)

Two three-hour lecture-lab periods per week.

Techniques of clothing construction using professional methods. Emphasis on selection of fabrics and patterns, alterations and fitting. For students with little or no experience in clothing construction.

#### 20b CLOTHING AND TAILORING (3)

Three two-hour lecture-lab periods per week.

Prerequisite: 20a or two years of high school clothing or consent of instructor.

Advanced and custom techniques of tailoring and dressmaking with emphasis on clothing selection, principles of color, design and individuality.

# Home Economics (continued)

### 20c CREATIVE FASHIONS, CONSTRUCTION AND DESIGNING (3)

Two two-hour lecture-lab hours per week

Prerequisite: 20b.

Custom techniques of tailoring, fine finishes, detailed study of pattern and fabric compatibility. Elementary designing problems will emphasize originality and creativity in apparel construction.

### 22 TEXTILES (3)

Three lecture hours per week.

Study of natural and man-made fibers; yarns and fabric construction and finishes. Care, cost and labelling as related to consumer use.

### 24 FASHION ANALYSIS AND CLOTHING SELECTION (2)

Two lecture hours per week.

Psychological, sociological and economic aspects of clothing selection. Artistic principles of costume and coordination in design and color for the individual. Wise purchasing and comparative shopping. Recommended for merchandising, fashion and the business world.

### 35 CHILD IN THE HOME (3)

Three lecture hours per week.

Prerequisite: Completion of or concurrent enrollment in Psychology 1a.

Emotional, social, intellectual and physical development of children to age 6; intra-family relationships with emphasis on parent-child relations; mother-child relations; play-learning materials and activities. Observations of pre-school children; participation in play-school and evaluative conferences with the instructor.

#### 40 INTERIOR DECORATION AND HOUSING (3)

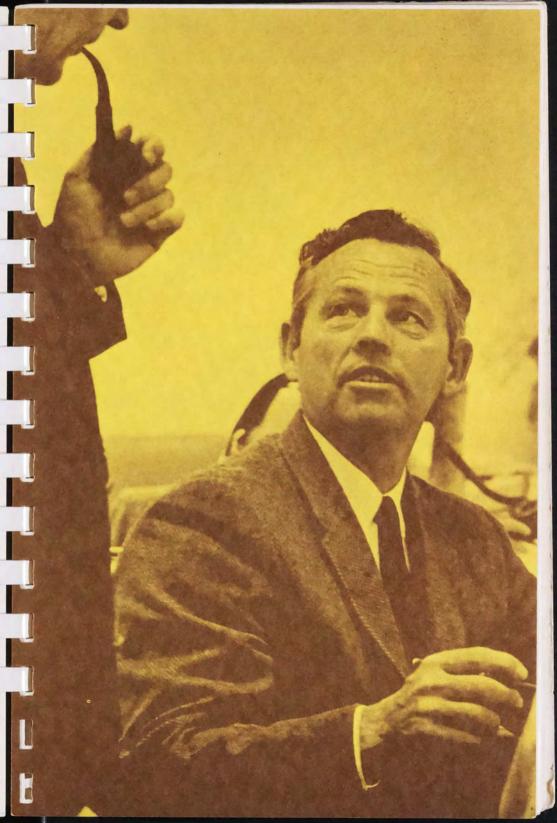
Three lecture hours per week-Fall semester.

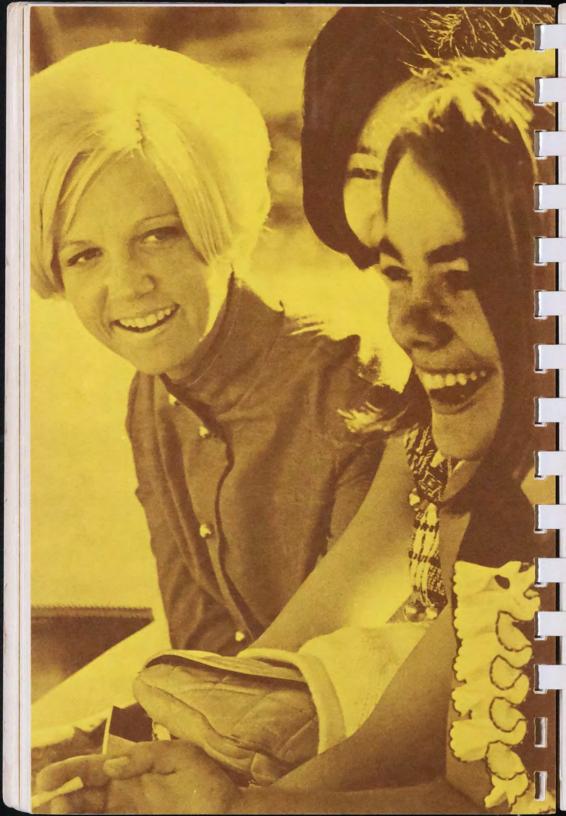
Analysis of today's house. Experiences in decorating, selecting furnishings and creating furnishings. Study of home in the environment.

### 41 INTERIOR DESIGN AND HOME PLANNING (3)

Three lecture hours per week-Spring semester.

Study of environment of today's house, with experiences in use of line, form, color and design. Selection of furniture, surfaces, fabrics and accessories from artistic and practical standpoint. Construction of slipcovers, draperies, bed-spreads and simple furniture upholstering is optional.





# Home Economics (continued)

### 52 FOODS (2)

One two-hour lecture-demonstration per week.

Planning, selection and preparation of foods for meals for optimum health and aesthetic enjoyment. An introductory course designed especially for young adults—men and women.

### 65a CLOTHING CONSTRUCTION (1)

One three-hour lab per week.

Principles of professional and custom dressmaking designed for the non-major. Pattern and fabric selection, alterations and fitting, and basic techniques will be given to develop individual skills. One garment will be constructed.

### 65b CLOTHING CONSTRUCTION (1)

Three hours per week.

Prerequisite: 65a or consent of instructor.

Professional tailoring and advanced dressmaking for the more skilled individual. Pattern alteration, fabric suitability study, line and design for the individual, color selection. Some custom techniques will be taught. Two garments will be constructed.

### Journalism

# 1 INTRODUCTION TO JOURNALISM (3)

Three lecture hours per week.

Prerequisite: Eligibility for English A.

A study of the historical background and modern functioning of the press (newspaper, radio, magazine, television) in a democratic society, and the virtues and shortcomings of each. The rights and duties of journalists, and the legal limits of the liberty of the press are studied.

#### 2 NEWSWRITING (3)

Two lecture hours and two lab hours per week.

Prerequisites: Journalism 1 and eligibility for English 1a.

A study of the techniques of news gathering, judging news values, and of writing the news story. For practical experience, the students write for the College paper, thus preparing them for future newspaper work. Since awareness of himself and his environment is essential to the development of any professional journalist, some in-class and out-of-class awareness exercises will be included in this basic newswriting course.

# Journalism (continued)

#### 3 ADVANCED NEWSWRITING (3)

Two lecture hours and two lab hours per week.

Prerequisite: Journalism 2.

A continuation of Journalism 2 with emphasis on detailed methods of and techniques for gathering and writing news. Practice in writing more complex and special story types. Individual writing conferences.

### 15 NEWSPAPER PRODUCTION (2)

Four hours per week.

Prerequisites: Journalism 2 (may be taken simultaneously) and permission of instructor.

Production of the student newspaper and instruction in principles of responsible editorial decision making. Discussion and criticism of staff organization and newspaper content. (May be repeated for credit.)

#### 16 MAGAZINE PRODUCTION (2)

Four hours per week.

Prerequisites: Eligibility for English 1a and permission of instructor.

Production of a student magazine. Discussion of techniques of publishing and production especially applied to school publications.

#### 50 NEWSPAPER PRODUCTION (1)

Two hours per week.

Prerequisite: Permission of instructor.

Production of the student newspaper and instruction in advanced journalism problems. Discussion and criticism of staff organization and newspaper content. (May be repeated for credit.)

# Library

### 1a INTRODUCTION TO USE OF LIBRARY MATERIALS (2)

Two hours per week.

Through discussions and practical exercises the student becomes acquainted with those library resources which will assist him in completing class assignments more rapidly and effectively: the card catalog, periodical and other indexes, dictionaries, encyclopedias, and other general and specialized reference works.

#### 4 AUDIO-VISUAL MATERIALS AND EQUIPMENT (2)

Two lecture hours per week.

Survey and evaluation of equipment and materials available. Preparation of instructional materials and practice in operation of the equipment.

### Life Science

### 10 INTRODUCTION TO THE LIFE SCIENCES (3)

Open to all students except those who are currently enrolled in or have completed a college course in the Life Sciences or Anthropology 1. Complementary to Physical Science 10.

A study of the nature of the physical and chemical aspects of life, the concepts of cellular biology, life as it exists on earth today, plant and animal interrelationships and interdependencies, and man's role in the world of living things.

## Mathematics

The normal sequence of mathematics courses at Cañada College is 11, 12, 19 or 20, 21, 29, 30, 31, 32, 33, 34. A student who qualifies for a particular mathematics course is eligible for any course lower in the sequence. If the student has not taken a mathematics course during the previous two years, it is strongly recommended that the student enroll in a course below the one for which he would normally be eligible.

In general, eligibility of an incoming freshman for a mathematics course is determined by an evaluation of his transcript.

Prerequisites for the various courses are detailed in the descriptions which follow. Where reference is made to mathematics of high school level, this means college preparatory mathematics beginning with elementary algebra, taken in elementary or secondary school.

A student who wishes to enroll in Mathematics 31, 32, 33, 34 and who has not had the prerequisite course must have the approval of the division chairman. Likewise, questions regarding equivalency of courses, transfer credit and the like, should be referred to the chairman.

## 10 INTRODUCTION TO MATHEMATICAL CONCEPTS (3)

Three class hours per week.

The basic ideas of mathematics and their historical development; number, function, logic, sets; the relationship of traditional and contemporary mathematical thought. Material presented is non-computational in nature. (Satisfies General Education requirements in part.)

## 11 ELEMENTARY ALGEBRA (5)

Five class hours per week.

Elementary Algebra through quadratic equations. (Satisfactory completion of this course will fulfill in part the mathematics entrance requirements of the universities.)

# Mathematics (continued)

### 11a-11b ELEMENTARY ALGEBRA (3-3)

Three class hours per week.

The two courses, Mathematics 11a-11b, are equivalent to Mathematics 11. (Recommended for those who have not previously had elementary algebra.)

#### 12 GEOMETRY (5)

Five class hours per week.

Prerequisite: Mathematics 11 with a grade of "C" or better, or two semesters of high school level mathematics with grades of "C" or better.

A study of the properties of plane and solid figures, using formal logic and the real number system. Some non-Euclidean, protective and topological elements are included. (Satisfactory completion of this course will fulfill in part the mathematics entrance requirements of the universities.)

#### 13 ELEMENTARY FINITE MATHEMATICS (3)

Three hours of lecture per week.

Prerequisite: Mathematics 11 (or equivalent).

An introduction to finite mathematics with attention to set theory. Boolean Algebra, switching circuits, probability, systems of linear equations, vector and matrix notations and operations. (Required of all Data Processing majors.)

#### 16 CONTENT OF ELEMENTARY SCHOOL MATHEMATICS (3)

Three class hours per week.

Development of the real number system by intuitive and semi-rigorous methods; discussion of sets, logic, axiomatics, systems of numeration, history and development of arithmetic, arithmetic processes, inductive and deductive reasoning. (Meets requirements of California Administrative Code, Title 5, Education, Section 6130(g).)

### 19 INTERMEDIATE ALGEBRA (5)

Five class hours per week.

Prerequisites: Mathematics 11 and Mathematics 12 with grades of "C" or better, or four semesters of high school mathematics with grades of "B" or better.

Extension of fundamental algebraic concepts and operations, binomial expansion, solution of linear and quadratic equations individually and in systems, determinants, radical equations, complex numbers, introduction to theory of equations. Mathematics 19 is designed primarily for those students whose elementary algebra is weak. It allows time for review of elementary algebra and a slower development of new ideas.

# Mathematics (continued)

### 20 INTERMEDIATE ALGEBRA (3)

Three class hours per week.

Prerequisites: Mathematics 11 and Mathematics 12 with grades of "C" or better, or four semesters of high school mathematics with grades of "B" or better.

Extension of fundamental algebraic concepts and operations, binomial expansion, solution of linear and quadratic equations individually and in systems, determinants, radical equations, complex numbers, introduction to theory of equations.

### 21 ANALYTICAL TRIGONOMETRY (3)

Three class hours per week.

Prerequisite: Mathematics 20 (or equivalent) with a grade of "C" or better; or five semesters of high school mathematics with grades of "C" or better.

Trigonometric functions of real numbers and angles, their graphs and periodicity; reduction formulas; functions of multiple angles; identities and equations; radian measure; inverse functions, logarithms; solution of triangles; complex numbers and De Moivre's theorem.

# 28 COLLEGE ALGEBRA (3)

Three class hours per week.

Prerequisites: Mathematics 21 (or equivalent) with grade C or better; or high school preparation including two years of algebra, one year of geometry and one semester of trigonometry with grades of C or better.

A study of more advanced algebra including such topics as theory of equations, complex numbers, logarithmic and exponential functions, matrices, vectors, binomial theorem, sequences.

# 29 MATHEMATICAL ANALYSIS (5)

Five class hours per week.

Prerequisite: Mathematics 21 (or equivalent) with a grade of "C" or better; or seven semesters of high school level mathematics with grades of "C" or better.

A unification of college algebra and analytical trigonometry based on the function concept. Topics include properties of the real number system, inequalities, theory of equations, complex numbers, logarithmic and exponential functions, matrices, binomial theorem, sequences, inverse functions.

# Mathematics (continued)

### 30 ELEMENTS OF ANALYTICAL GEOMETRY AND CALCULUS (5)

Five class hours per week.

Prerequisite: Mathematics 29 with a grade of "C" or better; or Mathematics 19 or Mathematics 20 with grade of "A" and Mathematics 21 with a grade of "B" or better; or seven semesters of high school level mathematics, each with a grade of "B" or better.

Basic concepts of calculus. Includes plane analytic geometry, differentiation, integration, differentials and anti-derivative; formulas; application.

### 31-32-33 CALCULUS (3-3-3)

Three class hours per week.

Prerequisites: To enroll in Mathematics 31, completion of Mathematics 30 (or equivalent) with a grade of "C" or better. The student may then progress through this series of three courses if he continues to earn grades of "C" or better. If he earns a grade below "C," enrollment in the next course is subject to approval of the instructor.

Further development of the basic theory of differential and integral calculus as applied to circular, hyperbolic, logarithmic and exponential functions; extension of the techniques of integration; polar coordinates; vectors; infinite series; solid analytic geometry; partial differentiation; multiple integration.

# 34 ORDINARY DIFFERENTIAL EQUATIONS (3)

Three class hours per week.

Prerequisite: Mathematics 33 (or equivalent) with a grade of "C" or better. When approved by the instructor, may be taken concurrently with Mathematics 33.

Differential equations of first, second and higher order; simultaneous, linear, homogeneous equations; solutions by power series; numerical methods, Fourier series, Laplace transform; applications.

# 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Mathematics 30 or equivalent; permission of the instructor.

Directed individual study of a suitable topic in mathematics, or construction of a model useful in the study or teaching of mathematics.

## Meteorology

### 1 ELEMENTARY METEOROLOGY (3)

Three lecture hours per week.

A basic course in meteorology including physical phenomena associated with weather analysis and prediction. (This course meets the general education requirements for physical science at many colleges and universities.)

## Military Science (Reserve Officers' Training Corps)

### 11 WORLD MILITARY HISTORY (2)

Two lecture hours per week and four leadership lab periods per month.

Prerequisite: See Military Science section.

Study of the forces which historically have produced armed conflict; historical development of basic concepts of war and their application to current national security problems; perspective of the history of warfare.

### 12 WORLD MILITARY HISTORY (2)

Two lecture hours per week and four leadership lab periods per month.

Prerequisite: Military Science 11.

Continuation of Military Science 11.

#### 21 FOUNDATIONS OF NATIONAL POWER (2)

Two lecture hours per week and four leadership lab periods per month.

Prerequisite: Military Science 12.

Study of the capacity of a nation to produce the elements of power, effectiveness of national power in solving international problems, with emphasis on the role of military power and national security.

#### 22 FOUNDATIONS OF NATIONAL POWER (2)

Two lecture hours per week and four leadership lab periods per month.

Prerequisite: Military Science 21.

Continuation of Military Science 21.

## Music

The courses of the Music Department are designed to fill the needs of the music major or professional musician as well as the desires of students for general education, avocation and recreation. Professional musicians, private teachers and others qualified are welcome to such theory classes as are desirable. The department will maintain a flexibility which will allow the addition of other courses upon demand of a sufficient number of students. Recitals by students and professional musicians are available. Attendance forms part of the requirement for music students. Courses marked with an (x) are especially recommended for any member of the community interested in adult education and effective use of leisure time.

Auditions: Students majoring in music will audition before the music faculty to prove necessary competence in the chosen solo performing area. Auditions may be repeated at the end of each semester to display progress.

### 1 (x) MUSICIANSHIP (2)

Two hours per week.

Prerequisite: Some pianistic ability desirable.

Includes the study of music notation, keys, key signatures, intervals, sight reading and ear training.

## 2a-2b ADVANCED MUSICIANSHIP (2-2)

Two hours per week.

Prerequisites: 2a-Music 1 or its equivalent; 2b-2a.

A continuation of Music 1. (Six units of Musicianship are recommended for students majoring in Music.) Emphasis is on ear training and sight reading.

## 4a-4b HARMONY (3-3)

Three hours per week.

Prerequisites: Music concentration, usually taken concurrently with Music 1, 2a. Some piano ability is essential. Music 4a is a prerequisite for Music 4b.

A study of chords and their relation to each other, to develop the ability to harmonize melodies on paper or at the keyboard. 4a-4b carry the student from simple triads through and including chords of the dominant seventh.

## 5a-5b ADVANCED HARMONY (3-3)

Three class hours per week.

Prerequisite: Music 4a-4b.

Deals with chords of seventh and ninth, altered chords and modulations, and arranging for various vocal and instrumental groups, and original composition.

### 6 MUSIC APPRECIATION AND SURVEY (3)

Three hours per week.

A study of music literature and history with emphasis on the understanding and appreciation of the art. A text, illustrated lectures and directed listening in the library indicate the procedure of the course. Material covered includes instrumental and vocal music from the 14th to the 20th Century. This course is for non-music majors as well as music majors.

### 8 FUNDAMENTALS OF MUSIC (3)

Three lecture hours per week.

A study in the basic musical skills needed by the elementary classroom teacher. Singing, ear training, reading music and harmonization of simple melodies. May not be applied toward the degree by the student whose major is music. Suggested for music majors who do not read music easily as a preliminary course to Music 1 and 4.

### 9 PHYSICS OF SOUND AND MUSIC (3)

Two lecture hours per week and one three-hour lab.

Prerequisite: None: high school algebra suggested.

Lectures with experimental demonstrations emphasizing the nature of sound, music and related wave phenomena. A weekly laboratory period studying musical instruments, overtones, resonance, pitch and recording techniques. (See Physics 9.)

### 10 (x) INTRODUCTION TO RELATED ARTS (3)

Three lecture hours per week.

The study of the basic elements of visual arts, music and theatre. An investigation of motivations, functions and relationships of the arts.

### 11a-11b-11c-11d (x) PIANO (1)

Three hours per week.

Prerequisites: Consent of instructor and concurrent enrollment in Music 99— Studio Hours.

A course in applied music with stress on technical and interpretive skills. Individual attention and advancement. Grades will be determined by jury audition. Required lab hours.

## 16 ACCOMPANYING (1)

Prerequisite: Advanced ability.

Skills and techniques of playing accompaniments for singers, instrumental soloists and choral groups. Performance is an essential of this course. May be repeated for credit.

# 19a-19b-19c-19d STUDY OF PERCUSSION INSTRUMENTS (1)

Prerequisites: Concurrent enrollment in Music 22 or Music 23, or consent of instructor. Concurrent enrollment in Music 99 is required.

Techniques of playing the various percussion instruments, including mallet instruments with class instruction, individual instruction and ensemble participation. Grades will be determined by jury examination.

## 20 (x) SURVEY OF OPERA (3)

Three lecture hours per week.

Lecture with record and film demonstration. A survey of the history of opera combined with principles and appreciation.

## 22a-22b-22c-22d (x) ORCHESTRA (2)

Five hours per week.

Prerequisite: Consent of instructor, Open to all students of the College.

Standard chamber and symphonic literature.

## 23a-23b 23c-23d (x) SYMPHONIC BAND (2)

Five hours per week.

Prerequisite: Consent of instructor. Open to all students of the College.

Study and performance of music for concert band. Performance is required.

# 24a-24b-24c-24d STUDY OF BRASS INSTRUMENTS (1)

Three class hours per week plus lab.

Prerequisite: Concurrent enrollment in Music 22 or Music 23, or consent of instructor. Concurrent enrollment in Music 99 (Studio Hours) is required.

Techniques of playing the instrument of the student's choice, with individual instruction. The course may be repeated for credit. Grades will be determined by jury audition.

### 25a-25b-25c-25d STUDY OF WOODWIND INSTRUMENTS (1)

Three class hours per week plus lab.

Prerequisite: Concurrent enrollment in Music 22 or Music 23, or consent of instructor. Concurrent enrollment in Music 99 (Studio Hours) is required.

Techniques of playing the instrument of the student's choice, with indivdual instruction. Grades will be determined by jury audition.

### 26a-26b-26c-26d STUDY OF STRINGED INSTRUMENTS (1)

Three class hours per week plus lab.

Prerequisites: Concurrent enrollment in Music 22 or consent of instructor. Concurrent enrollment in Music 99 (Studio Hours) is required.

Techniques of playing the violin, viola, cello or string bass, with individual instruction and ensemble playing. Grades will be determined by jury audition.

### 27a-27b-27c-27d (B-S-W) INSTRUMENTAL ENSEMBLE (1)

Three hours per week.

Prerequisite: Adequate performing ability to secure consent of the instructor.

The letters B. S and W indicate Brass. String and Woodwind. Performance is required.

### 33a-33b-33c-33d (x) A CAPPELLA CHOIR (2)

Five hours per week.

Prerequisite: Consent of the instructor.

Study and performance of choral literature for accompanied and unaccompanied choir. Performance is required.

### 34a-34b-34c-34d (x) COLLEGE CHORALE (1)

Three hours per week.

Prerequisites: Consent of instructor after audition, concurrent registration in Music 33.

An advanced ensemble which specializes in the performance of fine choral literature for small choir. Members are selected by audition from the enrollment of the A Cappella Choir. Performance is a part of the course.

## 35a-35b-35c-35d (x) CAÑADA COLLEGE ORATORIO CHORUS (1)

Three hours per week. Taught in the evening.

Prerequisite: Consent of the director. Open especially to adult singers with choral experience.

Rehearsal and performance of material from oratorio and other large choral literature for public performance. Performance is part of the course.

## 36a-36b-36c-36d SOLO VOICE (1)

Prerequisite: Concurrent enrollment in Music 33 or 34, or consent of instructor. Vocal problems analyzed and corrected through exercises and songs. Class sessions with private help by appointment. Grades will be determined by jury audition. Lab hours required.

## 40 MUSICAL PRODUCTIONS (1-3)

One class hour per week per unit.

Prerequisite: Consent of instructor after audition.

Training in chorus and solo parts of staged musical shows. Units depend on the hours the part demands. May be repeated for credit.

## 42 CONDUCTING (CHORAL CONDUCTOR'S WORKSHOP) (1)

Three lecture hours per week for six weeks.

Prerequisite: Conducting experience or consent of the instructor.

Development or review of conducting techniques with special emphasis on the choral literature. Selected problems in score reading and interpretation. Survey of recent publications for school and church choirs.

## 43 (x) STUDY OF CLASSICAL GUITAR (1)

Three class hours per week plus lab.

Prerequisites: Concurrent enrollment in Music 99 and possssion of a guitar.

Techniques of playing the guitar. Group and individual attention. Grades will be determined by jury audition. May be repeated for credit.

## 44 FINE ARTS FOR CHILDREN (3)

Three lecture hours per week.

Prerequisites: None.

For parents and teacher aides. A study of methods and materials useful in teaching the pre-school and primary grade child understanding and self-expression in art and music. Involves art and folk music, finger painting, clay modeling, and elementary painting and drawing.

### 49 SPECIAL PROJECTS (1-2)

Hours by arrangement.

Prerequisites: Sophomore standing and permission of Chairman of the Fine Arts Division.

Special projects in such fields as experimental media or tours of world music centers.

## 51 (x) PIANO TUNING AND TECHNOLOGY (4)

Three lecture hours and three lab hours per week.

Prerequisites: Music 1, 4a and 6, and concurrent enrollment in Physics 9 or consent of instructor.

A career-related course in keyboard temperaments, mechanism and design with practical work in tuning, regulating and repair of pianos.

### 99 STUDIO HOURS (0)

Hours by arrangement.

Supervised studio hours in connection with Music 11, 24, 25, 26, 36.

## Nursing

## 60 MEDICAL ASSISTING (3)

Three hours of lecture and discussion per week.

Prerequisite: Anatomy 51.

Assisting procedures commonly done in the doctor's office such as preparation for physical examinations, diagnostic preparations, knowledge of body mechanics, medical ethics. Principles of asepsis and of radiation protection.

## Philosophy

## 6a GENERAL INTRODUCTION TO PHILOSOPHY (3)

Two lecture and one seminar hour per week.

An introductory consideration of some of the central problems of traditional philosophy: the existence of God; the nature and possibility of knowledge, certitude, evidence and proof; the nature of the good life and moral obligation; the problem of human freedom and deterministic causality; the relation of the individual to society and the State, their respective rights and obligations. (Emphasis is placed not merely on clearly understanding the positions taken by the various philosophers studied on these issues, but also on the student developing and defending, both in oral and written form, positions of his own.)

## 6b ADVANCED INTRODUCTION TO PHILOSOPHY (3)

Three hours of lecture per week.

Prerequisite: One other course in philosophy or consent of instructor.

A more advanced introduction to philosophy stressing the various kinds of argument and analysis employed by the great philosophers of the past. Several famous claims from the history of philosophy are analyzed for their logical structure, logical and methodological presuppositions, consistency and relevance within the total philosophy of the particular author: an attempt is made to arrive at developing insight into what constitutes an accepable methodology in philosophy. (The student will be expected to do a good deal of independent work; some study of logic would be helpful, either before or at the same time as this course.)

## 12 INTRODUCTION TO SYMBOLIC LOGIC (3)

Three hours lecture/self-study per week.

Prerequisite: English 1a or consent of instructor.

The course divides into three parts: (1) survey of the traditional Aristotelian logic of the categorical statement and syllogism; (2) fairly complete treatment of modern symbolic propositional logic; (3) brief introduction to (first-order) symbolic predicate logic. (If time permits, some discussion of Russell's paradox, Godel's incompleteness theorem, and the impact of each on the development of 20th century logic, will be introduced.)

## 20a HISTORY OF PHILOSOPHY: ANCIENT AND MEDIEVAL (3)

Three hours of lecture per week.

Prerequisite: Philosophy 6a or consent of instructor.

A study of Greek philosophy with emphasis on the Pre-Socratics, Socrates, Plato and Aristotle; philosophy of the Roman world, and the development of Christian philosophy in the Middle Ages.

## Philosophy (continued)

## 20b HISTORY OF PHILOSOPHY: RENAISSANCE AND MODERN (3)

Three hours of lecture per week.

Prerequisite: Philosophy 6a or consent of instructor.

A study of the thought of the Renaissance and the rise of modern science, of continental rationalism in Descartes, Leibnitz, Spinoza, and of the opposing tradition of British empiricism and the critical philosophy of Kant.

## 20c HISTORY OF PHILOSOPHY: CONTEMPORARY (3)

Three hours of lecture per week.

This course may be employed by the student as a convenient method of introducing himself to the study of philosophy through the consideration of the thought of men closer to, and hence with more obvious influence on, the present time. A selection will be made from among the multitude of 19th and 20th Century philosophers, illustrating two or three themes or schools of philisophy, their relation to the past and to each other, and their impact on the present world. Various schools that might be chosen for presentation include: Idealism, Existentialism, Marxist Communism, Christian Philosophy, Logical Positivism, Pragmatism, Utilitarianism, Contemporary Analysis. Some of the following philosophers will be studied: Hegel, Fichte, Feuerback, Engels, Marx, Lenin, Marcuse, Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, Camus, Bergson, Teilhard de Chardin, Tillich, Barth, Marcel, Mill, Carnap, Frege, Russell, Whitehead, Pierce, James, Austen, Quine, etc.

### 23 INTRODUCTION TO ETHICS (3)

Three lecture hours per week.

Prerequisite: Philosophy 6a, or English 1a, or consent of instructor.

A study of the traditional theories of the good life and moral obligation and their application to typical problems of individual and social behavior. Theories discussed include: Epicureanism, Stoicism and Hedonism; the "Nichomachean Ethics" of Aristotle; Augustinianism; theistic approbativism; Kantianism; the consequentialism of John Stuart Mill and other Utilitarians; the intrinsicism of G. E. Moore; Plato's views on the ideal of a just society and Marx's views on the ideal of a classless society; the capitalistic and libertarian views of the ideal society.

## 24a INTRODUCTION TO RELIGION: RELIGIONS OF THE WORLD (3)

Three hours of lecture per week.

An introductory course in the history and development of the great religions of the world; their cultural background, their basic tenets, their religious practices, their literature and art, and their impact on the society and culture of which they are a part.

## Philosophy (continued)

## 24b INTRODUCTION TO RELIGION: PHILOSOPHY OF RELIGION (3)

Three hours of lecture per week.

An investigation of the questions, relating to the existence of God, including appeals to rational arguments, revelation, miracles, authority, faith, mystical experience; the nature of God and the problem of evil; the relationship between religion and moral convictions, and between religion and science; the problem of immortality.

## 28 INTRODUCTION TO THE PHILOSOPHY OF SCIENCE (3)

Three lecture hours per week.

Prerequisite: One course in philosophy and/or Science or mathematics, or permission of instructor.

An elementary treatment of the structure and orientation of the positive sciences: the role of observation and laws, inductive and deductive evidence, hypothesis and theory, in the logical structure and historical development of the sciences; the mathematicization of science. Typically the sciences considered would include mathematics, physics, either biology or psychology and one other (e.g. economics, anthropology, cosmology, etc.)

## 35 ASIAN PHILOSOPHY (3)

Three lecture hours per week.

Prerequisite: Philosophy 6a, 24a, or History 9a or 9b strongly recommended.

An introductory course in the philosophical development in the major Asian countries—India, China and Japan. A comparison of the philosophical developments among these countries will be the central theme of the course. An analysis will also be made of the religious element within these philosophical systems and their impact on surrounding countries.

## 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in philosophy and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

## Physical Education (Men)

The Department of Physical Education for Men at Cañada College operates under the State Law of California, which requires each regularly registered student to participate in Physical Education activities. In accordance with the provisions of the School Code, all men students, except those excused by the Physical Education Division, are required to attend the regularly organized courses in Physical Education for not less than two hours each week that the college is in session.

Department Requirements: Students registered in a Physical Education activity class who claim exemption from physical education by reason of physical disability must present statements signed by a physician. The Physical Education class must be attended until the disability is verified and the student is given specific instructions by the Physical Education Division.

A student may elect more than one Physical Education general service class of one-half unit following approval by the Division Chairman. A student must be enrolled in and pass a one-half unit course in Physical Education each semester until graduation unless appropriately excused.

All students required to enroll in general service activity classes should have a diversified experience in physical education. Therefore, students will be programmed in such a manner as to give them a broad variety of activities wherever possible. Students will have the choice of selecting their classes from a variety in individual sports, team sports, aquatics, gymnastics, rhythmics, dance, combatives and conditioning.

It is possible to repeat a specific class providing permission of the Physical Education Division is obtained. Students must understand that some four-year institutions may not grant transfer credit in the case of physical education classes which are repeated.

Enrollment on a varsity athletic team will satisfy the physical education requirement.

#### VARSITY SPORTS

These courses are designed for those students who desire to compete in intercollegiate athletics and may be limited to those who present the necessary qualifications. The passing of medical and physical examinations and the consent of the coach are necessary before actual participation is started. Varsity awards are granted for all sports.

## 5 VARSITY BASKETBALL (1)

Prerequisite: Permission of the instructor.

Intercollegiate varsity basketball competition in the Camino Norte Conference and participation in regional tournaments. Daily practices October 15 to March 15.

## Physical Education (Men) (continued)

## 6 VARSITY WRESTLING (1)

Prerequisite: Permission of the instructor.

Intercollegiate competition in dual matches in the Camino Norte Conference; competition in several regional wrestling tournaments each year including the Camino Norte Conference Meet, the Northern California Meet and the State J.C. Championships. Daily practices October 15 to March 15.

### 7 VARSITY SOCCER (1)

Prerequisite: Permission of the instructor.

Intercollegiate competition with four-year institutions and junior colleges in Northern California. League competition in the Western Junior College Soccer Conference. Daily practices from September to December.

### 8 VARSITY BASEBALL (1)

Prerequisite: Permission of the instructor.

Intercollegiate competition in the Camino Norte Conference and participation in regional tournaments, Northern California playoffs and the State J.C. Championships when qualified. Daily practices February to May.

## 10 VARSITY TENNIS (1)

Prerequisite: Permission of the instructor.

Intercollegiate competition in the Camino Norte Conference and participation in dual matches, invitationals, league meet, Northern California and State Championships as qualified. Daily practice, February to May.

#### INTRAMURALS

Supervised intramural sports are scheduled throughout the semester. Primary hours are from 11 a.m. to 12 noon on Tuesdays and Thursdays. Additional intramural activities will be scheduled on Friday afternoons and some evenings. Students should consult the Intramural Bulletin Board in the Physical Education Building for detailed information concerning activities, days, hours, sign-up procedures and prerequisites.

As student interest determines the need, intramural programs will be established in three- and five-man basketball, table tennis, badminton, bicycling, soccer, weight lifting, softball, bowling and volleyball.

## Physical Educaton General Service Classes (Men)

#### COMBATIVES

### 1 ELEMENTARY WRESTLING (1/2)

Two hours per week.

Prerequisite: Enrollees must be beginners in wrestling activity.

Designed to introduce the student to intercollegiate wrestling through instruction in the rules, scoring system, and skills. Fundamental stances, take downs, escapes, reversals, breakdowns, rides and pinning combinations. After learning these skills, the student will be able to apply them in short periods of wrestling.

### 1 ELEMENTARY JUDO (1/2)

Two hours per week.

Prerequisite: Enrollees must be beginners in judo activity.

An elementary course in judo for the beginning student. Consideration is given to the rules, procedures, techniques of falling, unbalancing, throwing, and combinations of techniques as related to physical development. The emphasis of this class is on judo as a sport.

#### CONDITIONING

#### 1 ROPE ACTIVITIES (1/2)

Two hours per week.

This class is designed to offer techniques related to vertical rope climbing, rope skipping, and peg board work. The major emphasis of this class is placed on the development of shoulder girdle structure and the improvement of cardio-respiratory endurance. Students skip rope for speed and techniques. Seventeen vertical rope climbing skills are taught in progressive order. Nine peg boards are utilized for the development of strength as related to hands, wrists, forearms, and legs. Detailed evaluations procedures are followed. Emphasis is placed on the explanation and development of safety procedures.

## 1 FITNESS ACTIVITIES (1/2)

For the student who desires a course in vigorous activity of a "conditioning" nature. Tests are given regularly relating to motor fitness, speed, balance, strength, endurance, flexibility, and power. Considerable running activity is included. Emphasis is placed on the development of cardio-respiratory improvement. Several college fitness batteries are utilized. Team games are utilized to develop stamina.

## Physical Education General Service Classes (Men-continued

### 1 EXERCISE APPRECIATION (1/2)

A basic conditioning course, which presents a life-long program in exercise appreciation for the promotion and maintenance of one's health. Progressive exercise plans are offered for strength, endurance, flexibility, coordination, balance and agility. Students are expected to reach a level of fitness and to develop the necessary self-discipline to maintain this level. To perform more efficiently with less expenditure of energy and to "push-back" the aging processes are primary objectives of the course.

### 1 ISOMETRICS AND ISOTONICS (1/2)

Instruction in, and conditioning through, basic isometric exercises and running activities. The isometric concept is achieved through basic isometric exercises conducted on a partner basis as well as with the "Exer-genie." Running activities are conducted at each class meeting for the inclusion of cardio-respiratory values.

#### INDIVIDUAL SPORTS

## 1 ELEMENTARY WEIGHT CONDITIONING (1/2)

Prerequisite: Enrollees must be beginners in weight conditioning work.

A basic course in the elementary lifts and procedures of weight training Emphasis is placed upon proper form and techniques, safety procedures, and strength values of beginning work in weight lifting. Bar-bells, dumb-bells, and associated equipment are combined with regular running activity.

## 1 INTERMEDIATE/ADVANCED WEIGHT CONDITIONING (1/2)

Prerequisite: Successful completion of Elementary Weight Conditioning or permission of the instructor.

Progressive skills and weight development in various weight conditioning exercises. Opportunities will be granted to specialize in different areas of the body. The development of individual programs will be encouraged.

## 1 ELEMENTARY BADMINTON (1/2)

The rules and strategies of badminton as well as the fundamentals of grip, strokes, footwork and court coverage through drills and competition; testing program in the various skills and techniques are taught; tournaments in singles and doubles are held.

## Physical Education General Service Classes (Men-continued)

### 1 GYMNASTICS (1/2)

Two hours per week.

For beginning students in gymnastic activity.

Elementary concepts of gymnastic activities for beginning students; includes trampolining, side horse, long horse, horizontal bar, parallel bars, pyramid building and tumbling.

### 1 INTERVAL-CIRCUIT TRAINING (1/2)

Two hours per week.

A combination of vigorous weight training activities combined with endurance, agility and cardio-vascular exercises which are conducted on a circuit course basis. One class hour each week will be devoted to weight training and the second class hour will cover improvement in flexibility, strength, and cardio-vascular aspects. Particular emphasis is placed on self-improvement. Evaluation programs include tests for sit-ups, push-ups, pull-ups, standing broad jump, step tests, and a 300 yard shuttle run.

#### TEAM SPORT

### 1 ELEMENTARY BASKETBALL (1/2)

Two hours per week.

Prerequisites: Enrollees must be beginners in basketball activity. Students who have participated on high school interscholastic teams will not be admitted.

Instruction in the fundamental skills of basketball play, such as dribbling, passing, shooting, team offense and defense. Knowledge of the playing rules as well as game strategies, will be taught. Evaluation will be conducted through written and practical examinations on rules and on all skills taught. Round robin schedules are conducted during the last half of the semester.

## I ELEMENTARY SOFTBALL (1/2)

Two hours per week.

Prerequisite: Enrollees must be beginners in softball play.

Fundamentals and play situations of softball are offered. Students participate in game situations and round-robin play. A testing program is included on all rules and skills taught. Regulation "fast-pitch," "lob ball" and "16 inch" play is included.

# Physical Education General Service Classes (Men-continued)

### 1 ADVANCED SOFTBALL (1/2)

Two hours per week.

Prerequisite: Successful completion of Elementary Softball or permission of the instructor.

Advanced aspects of team play in softball; review of fundamentals as needed; team play in round-robin league; testing program related to the ability to perform advanced softball skills; leadership in the intramural softball program may be requested.

### 1 ELEMENTARY SOCCER (1/2)

Two hours per week.

Prerequisite: For beginning students in soccer only.

Basic fundamentals of individual play such as dribbling, heading, shooting, trapping, passing and defensive tactics; participation in game situations and round-robin play; testing program in all soccer skills and rules.

## 1 ADVANCED SOCCER (1/2)

Two hours per week.

Prerequisite: Successful completion of Elementary Soccer or permission of the instructor.

Advanced aspects of team play in soccer; extension of elementary skills of play in dribbling, trapping, heading, offensive and defensive tactics; considerable team play is offered.

## 1 ELEMENTARY VOLLEYBALL (1/2)

Two hours per week.

Prerequisite: Enrollees must be beginners in volleyball play.

Instruction in the fundamentals of serving, passing, setting, and spiking; team competition under national and international rules of play; testing program in all skills taught and in knowledge of rules.

# Physical Education Competencies

20a-20b-20c-20d PHYSICAL EDUCATION COMPETENCIES (Women) (2)

30a-30b-30c-30d PHYSICAL EDUCATION COMPETENCIES (Men) (2)

## 50a-50b-50c-50d PHYSICAL EDUCATION COMPETENCIES (Co-Ed) (2)

Prerequisites: Enrollees should be major or minor students in either Physical Education or Recreation Education. This course replaces the need of a general service class in physical education and satisfies the graduation and transfer requirement in physical education.

A series of planned activities designed to assist students who are majoring or minoring in Physical Education or Recreation Education to attain the skill level necessary to pass the upper division competency requirements of the four year colleges and universities. Emphasis is placed on the development and improvement of the individual's own skills to perform selected activities. Activities include dance, gymnastics, individual sports, combatives, conditioning activities and team sports. One of this class series is offered each semester for four semesters. The class meets six hours each week.

## 41m THEORY OF SPORTS OFFICIATING (2)

(Not a general service activity class.)

One hour of lecture per week with two hours of laboratory experience in general service classes or intramural activities. Enrollees must be available for all hours listed for class meetings. For major and minor students in Physical Education and Recreation Education, and does not satisfy the general service class requirement.

Knowledge of rules, techniques and current practices associated with officiating in football, basketball, softball, baseball, wrestling, soccer, aquatics and track and field. Students participate in a laboratory experience officiating in these activities as conducted in the college instructional and intramural programs.

## 40 THE NATURE AND SCOPE OF PHYSICAL EDUCATION (2)

Two lecture hours per week with assigned laboratory meetings. For major and minor students in Physical Education and Recreation Education.

(Not an activity class.)

A parallel course to Introduction to Physical Education which is offered in the four year institutions. This course represents a detailed treatment of academic and professional requirements for physical education preparation, development of aims, objectives and philosophies. Consideration is given to the history of Physical Education as it relates to current developments and programs. Students are required to prepare a term paper, participate in panel discussions, symposiums, laboratory and field experiences.

## Physical Education Competencies (continued)

### 42 SPORT IN CONTEMPORARY SOCIETY (2)

Two lecture hours per week.

The incidence, form and regulation of sport and physical activity in contemporary society.

## Physical Education (Co-Ed)

### 2 ADAPTIVE ACTIVITIES (1/2)

Two hours per week.

Prerequisite: Physician's recommendation or assignment by the College nurse, Division Chairman or by an instructor.

This course is geared to the individual needs of each student. Sections of instruction are related to recreational sports of limited activity, to isometric and isotonic programs, and to remedial and rehabilitative concepts. Corrective programs are available. Consultation with physicians precedes the development of each student's program of activity.

### 2 ELEMENTARY ARCHERY (1/2)

Two hours per week.

For beginning archers. Deals primarily with the fundamentals of target archery. Individual and team competition is used in the Junior Columbia Round, Columbia Round and clout shooting. Also included is the basic understanding of rules, scoring, terminology, and care and selection of arching equipment.

### 2 ELEMENTARY BADMINTON (1/2)

Two hours per week.

The rules and strategies of badminton as well as the fundamentals of grip, strokes, footwork and court coverage through drills and competition; testing program in the various skills and techniques taught; tournaments in singles and doubles are held within the class period.

## 2 INTERMEDIATE FOLK DANCE (1/2)

Two hours per week.

Prerequisite: Elementary Folk Dance or permission of instructor.

Review of folk dance fundamentals and basic skills; introduction of approximately 30 intermediate dances. Representative dances of many countries, including Spain and Mexico, are presented.

### 2 MODERN JAZZ (1/2)

Two hours per week.

Prerequisite: Elementary Modern Dance or permission of instructor.

Elementary jazz techniques, foot and leg development, isolation of body parts and a rhythmic appreciation of jazz musicians and music. Solo and group improvisations to selected music will be included.

## 2 ELEMENTARY MODERN DANCE (1/2)

Two hours per week.

Basic dance techniques; ballet movement for proper body alignment, balance, flexibility and rhythmic coordination. Small group improvisations discovering new sources of movement will be included.

## 2 INTERMEDIATE AND ADVANCED MODERN DANCE (1/2)

Two lab hours per week.

Prerequisite: Successful completion of Elementary Co-ed Modern Dance, or permission of instructor.

A continuing study of dance experiences with emphasis on movement technique and the elements of composition.

### 2 ADVANCED MODERN DANCE AND COMPOSITION (1/2)

Two lab hours per week.

Prerequisite: Successful completion of Co-ed Intermediate and Advanced Modern Dance, or permission of instructor.

A synthesis of previous dance experiences, advanced technique and individual and group composition.

## 2 ADVANCED MODERN DANCE AND COMPOSITION (CHOREOGRAPHY) (1)

Four-hour classes twice a week.

Two hours per week.

Prerequisite: Permission of instructor.

Further study of technique and choreography. Planning, conducting and experiencing of a dance concert. Repertory compositions will be presented to students by the instructor.

## 2 ELEMENTARY BALLET/MODERN DANCE (1/2)

Two hours per week.

Beginning techniques of both ballet and modern dance are studied and executed. Movement skills, rhythmic structure of dance, qualities of movement, spatial design and an appreciation of dance are presented. The modern ballet and modern dance styles are emphasized in the creation of individual compositions.

### 2 ELEMENTARY FOLK DANCE (1/2)

Two hours per week.

Folk and square dance fundamentals, basic steps (two-step, polka, schottische, waltz and mazurka) and the development of a correct rhythmical response. Representative dances of many countries are presented.

### 2 ELEMENTARY JAZZ/MODERN DANCE (1/2)

Two hours per week.

Beginning techniques of modern dance are studied and executed. However, the expression and suggestion of slow and fast jazz and the inner expression of modern dance are emphasized. Movement skills, rhythmic structure of dance, qualities of movement, spatial design and an appreciation of jazz and modern dance are presented. Jazz and modern dance styles are emphasized in the creation of individual compositions.

## 2 ELEMENTARY SOCIAL DANCE (Ballroom) (1/2)

Two hours per week.

Social dance fundamentals and basic steps: waltz, tango, cha cha, samba, rhumba, fox-trot and fad (novelty) dances of today. The etiquette of social dance is emphasized and stress is placed on the individual's development of rhythmical response.

## 2 TRAMPOLINE (1/2)

Two hours per week.

Trampoline activity for elementary, intermediate and advanced students. Safety skills and fundamental processes of trampolining are taught in the following phases: Phase I—Fundamental bounces, checks, drops, simple combinations, turns, twists and somersaults. Phase II—Continuance of the activities of Phase I plus combinations of front and back somersaults and other intermediate movements. Phase III—The development of techniques in twisting somersaults, advanced routines, trick skills and team bouncing.

## 2 TUMBLING (1/2)

Two hours per week.

A course in tumbling skills ranging from the beginning level to advanced techniques. Activity is conducted in pyramid building, doubles and group tumbling. Flexibility stunts, agility stunts, balance activities, strength skills and the development of individual routines make up the course offerings.

### 2 INTERMEDIATE/ADVANCED JUDO (1/2)

Two hours per week.

Prerequisite: Successful completion of Elementary Judo at Cañada College or permission of the instructor.

An intermediate and advanced exposure to sport judo and self-defense; special emphasis on advanced conditioning, falling to both sides, refinement of throws, countering and selected new throws and drops.

### 2 ELEMENTARY BOWLING (1/2)

Two hours per week.

A course for beginning students in bowling. Learning opportunities will be provided in the stance, approach, release and roll. Participation in a league bowling situation will be required. A working knowledge of bowling rules, scoring and etiquette will be required. Interested students should investigate bowling costs before enrolling.

### 2 INTERMEDIATE - ADVANCED BOWLING (1/2)

Two hours per week.

Prerequisite: Women must have at least 110 average; men, at least 140 average.

Participation in advanced league bowling competition; individual scoring statistics are maintained. Approximate cost, \$15 per semester.

#### 2 LIFE SAVING (1)

Two hours per week.

Prerequisites: The ability to swim 440 yards continuously, demonstrating the crawl, side stroke and breast stroke; standing front dive; surface dive to six-foot depth and swim two body lengths under water; floating.

Progressive skill development in take-offs, approaches, carries, defensive mechanisms, shallow water carries, water safety knowledge and artificial respiration.

## 2 WATER SAFETY INSTRUCTION (1/2)

Two hours per week.

Prerequisite: Current American Red Cross Senior Life Saving Certificate.

Phase I: Development of effective performance in the nine basic swimming strokes and the various life saving and water safety skills. Phase II: Teaching techniques, methods and knowledge necessary to teach American Red Cross swimming and life saving courses.

### 2 BASIC METHODS AND TECHNIQUES OF SKIN AND SCUBA DIVING (2)

Two activity hours per week plus out-of-class assignments.

Prerequisite: Student must pass instructor's water skills test the first activity class meeting, or hold a current Senior Red Cross Life Saving card of a Water Instructor's card.

Demonstration and practice of skills necessary to become proficient in skin and scuba diving activities and in the proper utilization of scuba gear and its various periphery equipment. Thorough familiarization with those aspects of physics, physiology and mechanics directly related to a basic competency in skin and scuba diving. A basic study of the ocean environment and marine life from the safety, aesthetic and scientific viewpoints.

## 2 ELEMENTARY GOLF (1/2)

Prerequisite: Only beginning golfers will be enrolled.

Elementary instruction concerning the techniques, rules, etiquette and philosophy for the beginning golfer. Stance, grip, position, swing and follow-through as associated with selected irons and woods. Most sessions will be held on campus, although some activity is scheduled for local courses and driving ranges.

## 2 INTERMEDIATE/ADVANCED GOLF (1/2)

Two hours per week.

Prerequisite: Permission of the instructor.

An extension of the fundamentals learned in Elementary Golf; considerable emphasis is placed on the competitive aspects of golf; tournament play is a major part of the course; most sessions are conducted at the Emerald Hills golf course, putting greens, driving ranges, pitch-and-putt areas also utilized.

### 2 ELEMENTARY VOLLEYBALL (1/2)

Two hours per week.

Skills involving the serve, volley, dig, smash and hit will be taught and practiced. Proper rotation, rules and team play will be stressed. National volley-ball rules of play will be strictly enforced. An evaluation program in all skills will be conducted. Tournament play will be conducted on a round-robin basis.

## 2 TABLE TENNIS (1/2)

Two lab hours per week.

rerequisite: Enrollees must be beginners.

Elementary to intermediate techniques in table tennis play. Students will aceive instruction in the skills involving all aspects of play, such as strokes, arving, offensive and defensive aspects, and singles and doubles play. Considerable attention will be given to rules, formats and etiquette.

### ELEMENTARY BICYCLING (1)

Sour lab hours per week.

rerequisite: Enrollees must be beginners.

Beginning concepts of bicycling. Students will receive instruction in the operaon of bicycles, safety concepts, and will participate in cycling programs that ivolve controlled conditions. Activities conducted on various types of terrain will be geared to the individual potential.

## ADVANCED BICYCLING (1/2)

Two hours per week.

erequisites. Demontsartion of sufficient skill and conditioning to complete the tvanced course, or permission of the instructor.

Designed to provide students with a regular program of cycling to develop hysiological benefits. Students will be exposed to interval training workouts volving short sprints and gliding, together with over-distance and hill training.

## ELEMENTARY ICE SKATING (1/2)

Two hours per week.

rerequisite: Enrollees must be beginners.

struction will be provided for all basic movements in ability groups labeled "Alpha" (elementary), "Beta" (intermediate) and "Gamma" (advanced elementary). Attention will be given to skating in pairs, groups, and in figure incepts. Conditioning and basic techniques conducive to maximum safety will be offered. The course will be taught off campus. Students will be required to pay a small fee for use of skates.

## Physical Education (Women)

The Department of Physical Education for Women at Cañada College operates under the State Law of California, which requires each regularly registered student to participate in Physical Education activities. In accordance with the provisions of the School Code, all women students, except those excused by the Physical Education Division, are required to attend the regularly organized courses in Physical Education for not less than two hours each week that the college is in session.

Department Requirements: Students registered in a Physical Education activity class who claim exemption from Physical Education by reason of physical disability must present statements signed by a physician. The Physical Education class must be attended until the disability is verified and the student is given specific instructions by the Physical Education Division.

A student may elect more than one Physical Education general service class of  $V_2$  unit, following approval by the Division Chairman. A student must be enrolled in and pass a one-half unit course in Physical Education each semester until graduation unless appropriately excused.

It is the philosophy of the Physical Education Division that all students involved in activity courses have a diversified experience in Physical Education. Therefore, students will be programmed in such a manner as to give them a broad variety of activities. Physical Education counselors will require students to participate in several areas, drawing from rhythmics, individual sports, team sports, gymnastics or combatives. Students may not repeat a class activity without the permission of the Physical Education faculty.

#### INTRAMURALS

Supervised inframural sports will be scheduled throughout each semester. Primary hours are from 11:00 A.M. to 12 noon on Tuesdays and Thursdays. Additional inframural activities will be scheduled on Friday afternoons and some evenings. Students should consult the Inframural Bulletin Board in the Physical Education Building for detailed information concerning activities, days, hours, sign-up procedures and prerequisites. No unit credit will be given for participation in intramural activities.

## 41aW-41bW THEORY OF SPORTS OFFICIATING (1-1)

(Not a general service activity class.)

One hour of lecture per week with two hours of lab experience in general service classes or intramural activities. Enrollees must be available for all hours listed for class meetings. For major and minor students in Physical Education and Recreation Education. This class does not satisfy the general service class requirement.

Knowledge of rules, techniques and current practices associated with officiating in field hockey, softball, volleyball, basketball, soccer, speed ball, speeda-way and others. Students participate in a lab experience, officiating in these activities as conducted in the college instructional and intramural programs.

## Physical Education General Service Classes (Women)

### 1 BODY MECHANICS (1/2)

Instruction designed to assist the individual in moving efficiently, aesthetically and with a feeling of well being. Through a better understanding of the body functions, the individual will be able to develop a personal fitness for his needs. Emphasis will be on body functions, knowledge, fitness, exercise and charm.

### 1 FITNESS ACTIVITIES (1/2)

Two hours per week.

This class is designed to allow the student to comprehend and put into practice the necessary ingredients of movement to develop or improve physical fitness. Exercises range from mild to vigorous. Programs for the evaluation of individual fitness are developed. Endurance activities are stressed. Emphasis is placed on the development of understandings related to the needs and benefits of regular and continuing exercise.

### 1 ELEMENTARY JUDO (1/2)

Two hours per week.

Consideration is given to the rules, procedures, techniques of falling, unbalancing, throwing techniques and combination techniques as related to physical development. The emphasis of this course is on the development of a proper level of physical conditioning and on Judo as a sport. Self-defense will not be a primary concern.

### 1 RHYTHMIC GYMNASTICS (1/2)

Two hours per week.

Use of hand apparatus: balls, hoops, ropes, ribbons and Indian clubs. General body conditioning exercises, elementary tumbling and dance movements.

### 1 GYMNASTICS (1/2)

Two hours per week.

Use of the following apparatus: balance beam, uneven parallel bars, vaulting, tumbling and floor exercises. The elements of judging and actual participation in the D.G.W.S. College meets will be included.

## Physical Education General Service Classes (Women-cont.)

TEAM SPORTS

### 1 BASKETBALL/VOLLEYBALL (1/2)

Two hours per week.

Eighteen weeks of activity in the elementary concepts of both basketball and volleyball will be offered. Basic skills, strategy, theory and practice in basketball is included. Skills include dribbling, shooting, guarding and passing. Basketball theory offers use and practice of team play and strategy. Volleyball units include explanation and practice of the volley, set, serve, dig and smash. Proper rotation, execution of rules and team play will be stressed. A tournament will conclude the semester activity.

### 1 ELEMENTARY VOLLEYBALL (1/2)

Two hours per week.

An elementary course in volleyball play. Skills involving the serve, dig, smash and hit will be taught and practiced. Proper rotation, rules and team play will be stressed. National volleyball rules of play will be strictly enforced. An evaluation program in all skills will be conducted. Tournament play will be conducted on a round-robin basis.

### 1 FIELD SPORTS (1/2)

Class may elect to cover three or more of the following sports: softball, soccer, field hockey, speedball, speed-a-way and flagball. Instruction in basic skills, rules and strategies of each selected sport will be taught. Round-robin competition will be conducted.

## Physical Education Competencies

## 20a-20b-20c-20d PHYSICAL EDUCATION COMPETENCIES (Women) (2)

Prerequisite: Enrollees should be major or minor students in either Physical Education or Recreation Education. This course replaces the need of a general service class in Physical Education and satisfies the graduation and transfer requirement in Physical Education.

A series of planned activities designed to assist students who are majoring or minoring in Physical Education or Recreation Education to attain the skill level necessary to pass the upper division competency requirements of the four-year colleges and universities. Emphasis is placed on the development and improvement of the individual's own skills to perform selected activities. Activities include dance, gymnastics, individual sports, conditioning activities and team sports. One of this class series is offered each semester for four semesters. The class meets five hours each week.

## Physical Science

### 10 INTRODUCTION TO THE PHYSICAL SCIENCES (3)

Three lecture hours per week.

Open to all students except those who are currently enrolled in or have completed a college course in physics, astronomy or chemistry.

The basic physical laws of nature as described by the sciences of physics, astronomy and chemistry. Many topics of interest to prospective school teachers are included. (This course meets the general education requirements for physical science at many colleges and universities.)

## Physics

## 2a-2b GENERAL PHYSICS LECTURE AND LABORATORY (4-4)

Three lecture hours, one recitation hour and one two-hour lab per week.

Prerequisites: Elementary algebra and plane geometry. Trigonometry is strongly recommended. Physics 2a is a prerequisite for Physics 2b.

Lectures with experimental demonstrations and laboratory experiments covering mechanics, heat and sound in the first semester, and magnetism, electricity, light and modern developments in the second semester. (Designed for students majoring in some field of letters and science; required for those planning to enter medicine, dentistry, pharmacy, optometry, agriculture or forestry.)

### 4a-4b-4c GENERAL PHYSICS (4-4-4)

Three lecture hours, one recitation hour and one two-hour lab period per week.

Prerequisites: 4a—Mathematics 30 and concurrent registration in Mathematics 31; 4b or 4c—Physics 4a, Mathematics 31 and completion of or concurrent registration in Mathematics 32.

4a-Mechanics, wave motion and special relativity.

4b-Electricity and magnetism.

**4c**—Heat, light and modern physics. These courses constitute a three-semester program designed to give the student majoring in engineering, physics or chemistry a thorough foundation in the fundamentals of physics.

## Physics (continued)

### 9 PHYSICS OF SOUND AND MUSIC (3)

Two lecture hours per week, three lab hours per week.

Prerequisite: None; high school algebra suggested.

Lectures with experimental demonstrations, emphasizing the nature of sound, music and related wave phenomena. A weekly laboratory period studying musical instruments, overtones, resonance, pitch and recording techniques. This course is planned for, but not restricted to, Music majors.

### 10 INTRODUCTION TO DESCRIPTIVE PHYSICS (3)

Three lecture hours per week.

Prerequisite: The equivalent of at least one semester of high school mathematics. A description with experimental demonstrations of the more important phenomena of physics. This course is open to all students except those who have had, or are taking Physics 2a or 4a. (This course meets the general education requirements for physical science at most colleges and universities.)

#### 62 PHYSICS FOR X-RAY TECHNOLOGISTS (3)

Three lecture hours per week.

Prerequisite: High school algebra and geometry; high school science.

This specialized course will consider ideas of energy, electricity and electromagnetic waves as related to X-ray phenomena, including interaction with matter. X-ray circuits and equipment also will be studied. (Intended for students pursuing careers as X-ray technologists.)

## Physiology

#### 1 INTRODUCTORY PHYSIOLOGY (5)

Three lecture hours and two three-hour lab periods per week.

Prerequisites: One course selected from Biology 10b, Anatonmy 1, Zoology 1a. A knowledge of elementary chemistry and physics is recommended.

A course designed to familiarize the student with the functions of the organs and systems of the human body. This course is for students of Nursing, Physiotherapy, Physical Education, Psychology and other related fields.

### Police Science

### 9 INTRODUCTION TO LAW ENFORCEMENT (3)

Three lecture hours per week.

An orientation to the Police Science program as well as law enforcement as a profession and means of livelihood. This includes history and philosophy of law enforcement on the local, state and national levels. The employment opportunities and general requirements of the various law enforcement agencies. The problems facing law enforcement and the over-all crime picture in the United States. The general crime trends and crime rate for various sections of the country with special emphasis on California crime.

### 47 INTERNSHIP COOPERATIVE EDUCATION (2)

Six hours per week—one hour classroom and five hours to be arranged.

Prerequisites: Sophomore standing; Police Science major and consent of instructor.

### 50 PATROL PROCEDURES AND REPORT WRITING (3)

Three lecture hours per week.

Prerequisite: Police Science 9 or concurrent registration in same.

Methods, techniques and responsibilities of the patrol unit. Beat patrol and observation, police hazards and how to handle them. Includes the methods of writing police reports, what material is important, what purpose the different reports will fill. Various types of files and their uses.

#### 51a-51b CRIMINAL INVESTIGATION (3-3)

Three lecture hours per week.

Prerequisites: Sophomore standing; Police Science 9, 52 or 55, or consent of

Rudiments of criminal investigation; crime scene search; collection, preservation and identification of physical evidence; scientific aids; sources of information; interrogation of victims, witnesses and suspects; cooperation with related agencies; case preparation and follow-up work.

#### 52 CRIMINAL LAW (3) (May also be taken as Social Sciences 52)

Three lecture hours per week.

Prerequisite: Police Science 9, or consent of instructor.

Reason for criminal laws, their source and function in our society. The structure, definitions and most frequently used sections of the California Penal Code. Classification of crimes, nature of crimes, intent involved in the commission of an offense, attempts, conspiracy and criminal responsibility.

## Police Science (continued)

### 55 CRIMINAL EVIDENCE (3)

Three lecture hours per week.

Prerequisites: Police Science 9 and 52, or concurrent registration in Police Science 52.

Definition of evidence from the California point of view; a brief overview of the federal point of view concerning evidence. Admissibility of evidence in criminal court cases; materiality and competency of evidence. Distinction between admissions and confessions; the exceptions to the hearsay rule; types of evidence.

### 60 TRAFFIC CONTROL (3)

Three lecture hours per week.

Prerequisite: Police Science 9 or concurrent registration in same.

Laws relating to the registration of a vehicle; drivers' license laws; Vehicle Code sections most often encountered and violated; regulation and traffic control; traffic accident investigation, traffic accident report forms, types and uses.

## 71 POLICE ORGANIZATION AND ADMINISTRATION (2)

Two lecture hours per week.

Prerequisites: Sophomore standing; Police Science major.

The various functions of the police organization. The chain of command, span of control, functional supervision, unity of command and the purpose of the police organization.

### 100 POLICE MANAGEMENT (3)

Three lecture hours per week.

Prerequisite: Employment in law enforcement.

A course in management for police officers. Concepts and practices of management as well as methods for evaluating effective management. The course will cover (1) fundamentals of administration, (2) directing and coordinating human resources, and (3) communication problems and skill development among people.

### Political Science

## 1 INTRODUCTION TO POLITICAL SCIENCE (3)

Three lecture-recitation hours per week.

Examination of the nature of the state, basic forms of government and the theories of democracy, communism, fascism and other political ideologies. Analysis of the roles of political parties and pressure groups as well as the nature of public opinion and voting behavior. Consideration of the character of modern public administration and a brief survey of the pattern of contemporary international relations.

### 2 CONTEMPORARY FOREIGN GOVERNMENTS (3)

Three lecture-recitation hours per week.

Prerequisites: Political Science 1, 21 or 25, or consent of instructor.

The historical development and contemporary forms of government in the major foreign political systems. An analysis will be made of significant political forces and trends with reference to England, France, Germany, the Soviet Union and Japan.

### 3 INTERNATIONAL RELATIONS (3)

Three lecture-discussion hours per week.

This course examines the nature of relations among states and provides an analysis of the basic forces affecting the formulation of foreign policy and the dynamics of international politics. The evolution and operation of the United Nations Organization is a major topic of study.

### 5 INTRODUCTION TO POLITICAL THEORY (3)

Thre lecture hours per week.

Prerequisite: Successful completion of at least 12 semester units of college work.

A study of classical and modern political thought designed to develop student understanding of various theoretical approaches to politics, basic political problems and proposed solutions to these problems.

### 7 SURVEY OF CONSTITUTIONAL PRINCIPLES (3)

Three lecture hours per week.

Prerequisite: History 5 is strongly recommended.

A survey of American Constitutional development and analysis of the issues and problems considered by the U.S. Supreme Court particularly in the area of civil liberties and civil rights; the rights of racial, political and religious minorities and of criminal defendants; the concepts of due process and equal protecton of the laws; the interaction of the Supreme Court with the President, Congress, political parties and interest groups.

## Political Science (continued)

### 21 AMERICAN GOVERNMENT (3)

Three lecture-discusion hours per week.

Prerequisite: Sophomore standing is recommended.

The course includes a thorough study of the Constitution, a survey of the organization and functions of the branches of the federal government and an examination of the dynamics of the American political process.

### 24 CALIFORNIA URBAN GOVERNMENT (2)

Two lecture hours per week.

Prerequisite: None, but Political Science 21 or U. S. History is recommended.

A survey of the principal problems of urban and metropolitan communities with emphasis on the major issues of decision-making and administrative organization in California. This course fulfills the California institutions requirements.

### 25 NATIONAL, STATE AND LOCAL GOVERNMENT (5)

Five lecture-discussion hours per week.

An introduction to the principles and problems of American government at the national, state and local levels. Intergovernmental relationships are examined from a functional point of view. Major areas of emphasis are American federalism, judicial review, the political process in nation and state, civil liberties, foreign policy and the role of the citizen at all levels of government. (This one-semester course satisfies both the American institutions and the California institutions requirements.) Not open to students who have had Political Science 21 or 24.

#### 27 AMERICAN SOCIETY (5)

Five lecture-discussion hours per week.

Prerequisite: Strictly limited to foreign students or recent immigrants.

An orientation course in American society and culture. It encompasses social, political and economic institutions as well as history. There will be particular attention given to aspects of American life and historical development that are unique—ethnic history, patterns of voluntary association, political and non-political, educational trends, in addition to some of our cultural characteristics. (This course meets the American institutions and California institutions requirements.)

## Political Science (continued)

### 28 SCHOOL GOVERNANCE (2)

Two lecture hours per week.

Surveys the operation of the higher education system of governance in California with special emphasis on the Community College as a social institution, its current problems, role of school personnel, relations to other social and political agencies, legal and fiscal aspects of higher education, styles and functions of administration, the political process affecting education, basic types of democratic governance structures and student characteristics especially as related to curriculum. This course is especially designed for student body officers, students serving on committees, and others interested in student government.

### 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in Political Science and consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

## Psychology

### 1a GENERAL PSYCHOLOGY (3)

Three hours of lecture per week.

An introduction to psychology, including such topics as motivation of behavior, emotion, learning and thinking, the basis of observation and the methods of measuring individual differences. Emphasis is placed upon experimental evidence.

### 1b EXPERIMENTAL PSYCHOLOGY (3)

Three lecture hours per week.

Emphasizes the philosphy and aims of scientific inquiry and how it can be applied to answer questions in psychology. Students will carry out demonstration experiments to familiarize themselves with the methods discussed. (Recommended for Psychology majors.)

## 4 COURTSHIP, MARRIAGE AND THE FAMILY (3)

Three hours of lecture per week.

The history and development of marriage; dating; courtship; personality adjustment in marriage; parenthood; the problem of divorce; mate-selection; love; the family; anatomic, physiologic, psychologic and sociologic aspects of sex; children; religious factors; marriage as a social institution.

## Psychology (continued)

#### 5 CHILD DEVELOPMENT (3)

Three hours of lecture per week.

Prerequisite: Psychology 1a.

Consideration of social, emotional and intellectual developme n T from the prenatal period through adolescence. Emphasis will be influencing the developing personality.

### 6 SOCIAL PSYCHOLOGY (3)

Three hours of lecture per week.

Prerequisite: Psychology 1a or Sociology 1.

A study of human interaction, the effects of social influences behavior. Special attention will be given to social pressure change.

### 10 PSYCHOLOGY IN PRACTICE (3)

Three hours of lecture per week.

Intended for those who wish a general picture of human psycholo do not want to take further courses in psychology. Emphasis will application of psychological principles to problems of everyday li than the technical-scientific approach of Psychology 1a.

### 33 PSYCHOLOGY OF ADJUSTMENT (3)

Three hours of lecture per week.

The study of the ways people adjust to their environment. Empha upon the ways personality develops and changes. Case illustrations ent theories of personality will be presented.

For Psychological Statistics—see Statistics.

### 47 COOPERATIVE EDUCATION (1-3)

Supervised field experience by arrangement

## 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in Psychology and the c the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

## Psychology (continued)

# 61a EARLY CHILDHOOD EDUCATION: NURSERY SCHOOL PRINCIPLES AND PRACTICES (3)

Three lecture hours per week.

Nature and goals of early childhood education. Evolution and exploration of the various patterns of pre-schools in the United States. Exploration of the philosophic position, personalities and forces guiding the development of these early childhood programs.

## 61b EARLY CHILDHOOD EDUCATIONAL CURRICULUM (3)

Three lecture hours per week.

Selecting, developing and managing activities for young children. Developing skills in providing adequate and effective education. Exploration of creative activities and growth experiences through art, music, language development, dance and science.

### 62 CHILD, FAMILY AND COMMUNITY (3)

Three hours per week.

Designed for those who are working with or are concerned with the education and welfare of preschool children. Patterns of family living in a democratic society, and the role and interaction of members; varying factors affecting family life—racial, cultural, economic, social, urban and suburban; homenursery relationships; community resources—health, welfare, education, counseling, guidance, recreation and religion.

## Radiologic Technology

## 1 INTRODUCTION TO X-RAY TECHNOLOGY (2) (Credit/No Credit)

Two lecture hours per week.

Prerequisites: Analomy 62, Physics 62.

Introduction to X-ray technology. X-ray technology as part of paramedical services. General orientation to the X-ray field.

## 2 RADIOGRAPHIC POSITIONING (5) (Coop-Ed) (Credit/No Credit)

Three lecture hours and 37 lab hours per week.

Prerequisite: Radiologic Technology 1.

Introduction to radiographic positioning of structures and organs. Osseous and soft tissue radiography.

## Radiologic Technology (continued)

# 3 RADIOGRAPHIC EXPOSURE (5) (Coop-Ed) (Credit/No Credit)

Two lecture hours and 24 lab hours per week.

Prerequisite: Radiologic Technology 2.

Introduction to radiographic exposure, fluoroscopy, techniques, radiographic arithmetic.

# 4 ADVANCED RADIOGRAPHIC EXPOSURE (5) (Coop-Ed) (Credit/No Credit)

Three lecture hours and 24 lab hours per week.

Prerequisite: Radiologic Technology 3.

Continuation of Radiologic Technology 3 including pediatric radiography, topographic anatomy, radiologic pathology, film critique.

## 5a-5b INTERNSHIP (5-5) (Credit/No Credit)

Forty lab hours per week.

Prerequisite: Radiologic Technology 4.

Clinical internship on full-time basis and preparation for registry examination. Course lasts eight months.

## Recreation Education

## 40 INTRODUCTION TO RECREATION (2)

Two lecture hours per week with assigned laboratory meetings. For major and minor students in Physical Education and Recreation Education.

A study of recreation as a profession. The history and principles of recreation are considered and various public and private recreation organizations are examined and observed. The basic philosophies, skills and knowledges necessary for effective leadership and programming are analyzed. Current trends in the field of recreation are studied. Students are required to prepare a term paper, or an approved project, participate in panel discussions, symposiums, laboratory and field experiences.

## 41 RECREATIONAL LEADERSHIP (3)

One hour of lecture per week with a minimum of three additional hours per week in a field assignment. For major and minor students in Recreation Education.

Prerequisites: Recreation 40 and Physical Education 40, one of which may be taken concurrently with Recreation 41. Recreational Leadership may be taken concurrently with Recreation 42.

Practical supervised experience in San Mateo County area recreation programs for students preparing for recreational leadership positions.

## Recreation Education (continued)

#### 42 CAMPING AND OUTDOOR EDUCATION (2)

Two lecture hours per week.

Prerequisite: Recreation 40 or permission of the instructor.

A combination course in the theory and practice of camping. Attention is given to the leadership qualities for camp counseling, camper's development, and the growth and significance of organized camping. The principles of camping programs are considered and the practical skills in camping practiced. A week-end camping trip is planned as part of the course.

#### Social Science

#### 1 INTRODUCTION TO THE SOCIAL SCIENCES (3)

Two lecture hours and one discussion hour per week.

An introductory course in the methodology of the social sciences. Using local problems as a basis of study, this course is designed to demonstrate how the resources of political science, anthropology and sociology can be utilized in working out solutions. This course carries California State and Local Government credit.

#### 2 INTRODUCTION TO THE SOCIAL SCIENCES (3)

Three lecture hours per week.

Prerequisite: None; (Social Science 1 preferred).

An introductory course in the methodology of the social sciences. Using international problems as a basis of study, this course is designed to demonstrate how the resources of history, economics and political science can be utilized in working out solutions. (This course carries American History and Institutions credit.)

#### 29 JUVENILE PROCEDURES (3)

Three lecture hours per week.

Prerequisites: Police Science 9, Sociology 2 or 40, or concurrent registration in same.

The position the public agencies play in juvenile and delinquency control; organization and functions of related juvenile agencies; the laws governing the handling of juvenile offenders and their application; a brief resume of the juvenile court and its jurisdiction.

# Social Science (continued)

## 33 AFRO-AMERICAN CULTURE (3)

Three lecture hours per week.

A contemporary view of Black America. Concerned with the current political and social movements in black communities with an emphasis on the urban area. The contemporary black family will be examined, and the culture of the contemporary black community will also be studied in present and historical perspective.

## 34 MEXICAN-AMERICAN CULTURE (3)

Three lecture hours per week.

A contemporary view of the Mexican-American community covering its cultural heritage, social structure, problems and creative contributions.

# 38 COMMUNITY RELATIONS OF PUBLIC AGENCIES (3)

Three lecture hours per week.

The role of public agencies in contemporary society with particular emphasis on minority group relations. An examination of the society and the agencies that perform the police and service functions.

## 44 COMMUNITY DEVELOPMENT (3)

Three lecture hours per week.

The dynamics of community decision-making process in relation to meeting social welfare needs and problems; the variables in the functions and roles of the community organization and community development worker; the process of effecting change in communities.

## 48 SPECIAL TOPICS (2-3)

Two or three lecture hours per week.

A class dealing with topics of special interest. Specific subject matter will vary from semester to semester and will be announced in advance.

## 52 CRIMINAL LAW (3)

Three lecture hours per week.

Prerequisites: Police Science 9, Sociology 40, or consent of instructor.

Reason for criminal laws, their source and function in our society. The structure, definitions and most frequently used sections of the California Penal Code. Classification of crimes, nature of crimes, intent involved in the commission of an offense, attempts, conspiracy and criminal responsibility. (May also be taken as Police Science 52.)

## Sociology

#### 1 INTRODUCTION TO SOCIOLOGY (3)

Three lecture hours per week

Analysis of processes of group behavior and interaction between the individual and society; personality development in different cultures as shaped by learned customs, attitudes and values. Study of family, politico-economic and religious behavior; social movements; "mass society" and communication; community structure; social class and status, ethnic minorities, with close study of Negro-white relationships.

#### 2 SOCIAL PROBLEMS (3)

Three lecture-discussion hours each week

Socialization and development of the self: processes by which individuals learn approved behavior patterns and disturbances of those associated with non-conformity. Theoretical and descriptive study of patterns of delinquency, alcoholism, drug addiction, prostitution, prejudice and discrimination, and suicide. Prevention, control and rehabilitation. Costs and casualties in an acquisitive society.

#### 3 MINORITIES IN AMERICAN SOCIETY (3)

Three lecture hours per week.

Prerequisite: Sociology 1 or 2, or History 33 is recommended.

Sociology of inter-ethnic contact with emphasis on the experience of minorities in the United States. An examination of the dual themes of racism and equality in American society.

#### 40 INTRODUCTION TO SOCIAL SERVICE (3)

Three lecture hours per week.

A survey of the Social Services, their scope, purposes, problems and issues. Designed to provide an overview of the many local, state and federal services.

#### 41 THE COMMUNITY WORKER (2)

Two lecture hours per week.

Prerequisites: Concurrent enrollment in Sociology 47—Cooperative Education (1-3); Sociology 40 or consent of the instructor (acceptable field experience).

Instruction in writing observations, log entries, reports, evaluations, case studies and other related writing skills. Emphasis on the meaning of "professionalism," the importance and function of professional ethics and the difficulty personnel encounter in living these roles.

#### 47 COOPERATIVE EDUCATION (1-3)

Supervised field experience by arrangement

# Sociology (continued)

## 49 SPECIAL PROJECTS (1-2)

Prerequisites: Previous or concurrent work in Sociology and the consent of the instructor and the Social Science Division Chairman.

Specified individual study or directed research in specific problem areas.

# Spanish

Language Laboratory and Listening Requirement — Students enrolled in certain courses in foreign language are asked to make use of the language laboratory. Imitation, response and independent practice are an integral feature of the study of a foreign language at the College.

## 1 ELEMENTARY SPANISH (5)

Five class hours and one lab hour per week.

Spanish structures and active vocabulary based on oral and written pattern drills. Conversation based on short readings containing only structures already practiced. Students are urged to make extensive use of the facilities in the language laboratory.

## 2 ADVANCED ELEMENTARY SPANISH (5)

Five class hours and one lab hour per week.

Prerequisite: Spanish 1 with a passing grade or assignment by the English-Foreign Language Division on the basis of the Foreign Language Placement Test in Spanish.

Continuation of Spanish 1. Additional reading of Spanish short stories to serve as a basis for classroom conversation. Students are urged to make extensive use of the listening facilities in the language laboratory.

# 3 INTERMEDIATE SPANISH (5)

Five class hours per week.

Prerequisite: Spanish 2 with a passing grade or assignment by the English-Foreign Language Diviison on the basis of the Foreign Language Placement Test in Spanish.

Practice of conversation and composition; review of grammar; class and collateral reading of Spanish and Spanish-American literature. Students are urged to make extensive use of the facilities in the language laboratory.

## Spanish (continued)

#### 4 ADVANCED INTERMEDIATE SPANISH (3)

Three class hours per week.

Prerequisite: Spanish 3 with a passing grade or assignment by the Englishforeign Language Division on the basis of the Foreign Language Placement Test in Spanish.

Further practice of conversation and composition based on class reading of works of modern Spanish and Latin-American authors, review of grammar; collateral reading of Spanish and Spanish-American literature.

#### 8a-8b SPANISH CONVERSATION (2-2)

Two class hours per week.

Prerequisite: Spanish 4 or Spanish 3 and permission of the instructor.

Practice in conversation based on Spanish customs and culture. Students are urged to make use of the facilities in the language laboratory.

#### 25a-25b ADVANCED SPANISH (3-3)

Three class hours per week.

Prerequisite: 25a-Spanish 4; 25b-25a.

Oral and written composition, class reading of works of Spanish and Spanish-American literature, extensive collateral reading of varied types of Spanish and Spanish-American literature, and study of a review of grammar.

#### 30 INDIVIDUAL READING (1-2)

Conferences for oral reports. Time to be arranged. A minimum of three hours of reading per unit per week is required.

Prerequisite: Spanish 25b or permission of the instructor.

Reading of Spanish and Latin-American classics and contemporary literature.

## Speech

#### 1a BASIC PUBLIC SPEAKING (3)

Three class hours per week.

Prerequisite Eligibility for English la or permission of instructor.

Study and practice of basic principles of effective oral communication. Research, preparation, and delivery of extemporaneous speeches to inform and persuade. Emphasis on examination of relevant social issues. Analysis and evaluation of oral communication.

# Speech (continued)

## 16 ADVANCED PUBLIC SPEAKING (3)

Three class hours per week.

Prerequisite: Speech 1a.

Advanced study of the process of oral communication. Preparation and delivery of persuasive and informative speeches. Analysis and evaluation of communication events.

### 4 ARGUMENTATION AND DEBATE (3)

Three class hours per week.

Prerequisite: Speech 1a or permission of the instructor.

A lecture-lab course in the principles and techniques of argumentation and debate. Research in significant social problems. Analysis of propositions, issues, evidence and reasoning. Training and experience in the forms of debate.

## 5 FORENSICS PARTICIPATION (1/2-1)

Participation in approved intercollegiate forensic contests. (May be repeated for credit.)

## 10 CONTEMPORARY DIALOGUE (3)

Three class hours per week.

Experiences in interpersonal communication, rational dialogue and cooperative analysis of communicative events. Study of communicative interaction, the symbolic process, reasoning and advocacy, and the effects of communication on man and society.

# 30a-30b ORAL INTERPRETATION OF LITERATURE (3)

Three class hours per week.

Prerequisite: 30a-Eligibility for English 1a; 30b-Successful completion of Speech 30a.

Oral reading of literature (poems, short stories, plays); analysis of meaning; analysis of voice quality, enunciation, pronunciation and expressiveness.

## 57a-57b SPEECH FOR FOREIGN STUDENTS (3)

Three class hours per week.

Prerequisite: Placement in English 57a, 57b, or permission of the instructor.

Designed to help the non-native speaker develop greater fluency in spoken English. Practice in pronunciation, diction and usage. Preparation and delivery of extemporaneous speeches.

## Speech (continued)

#### 62 ELEMENTS OF SPEECH (3)

Three class hours per week.

Frequent practice in extemporaneous and impromptu speaking. Experiences in research, language usage, and diction. Emphasis is on individual abilities and needs in achievement of effective oral communication in daily life.

#### Statistics

#### 1 INTRODUCTORY STATISTICS FOR THE BEHAVIORAL SCIENCES (3)

Three lecture hours per week-Fall Semester.

Prerequisites: High school Algebra and sophomore standing, or consent of instructor.

An introduction to the descriptive techniques and methods of inference appropriate to psychology and related fields. Includes classification of data, graphical representation, measures of central tendency and dispersion, normal curve, etc.; elementary statistical inference, hypothesis testing and correlation.

### 2 INTRODUCTORY STATISTICS FOR BUSINESS AND ECONOMICS (4)

Four hours per week-Spring Semester.

Prerequisite: Mathematics 13 or consent of instructor.

An introduction to the descriptive and inferential techniques used in Business and Economics with emphasis on the mathematical skills required. Includes organization of data, measures of central tendency and dispersion; methods of statistical inference; probability theory.

## Student Government

#### 1-2 STUDENT GOVERNMENT (1-1)

One class hour and attendance at weekly Student Council meeting.

Designed to assist Student Council members, commissioners, club officers, and other interested students in acquiring background and skills for effective participation in activities. Includes parliamentary procedure, group dynamics, and analysis of the nature and techniques of effective leadership.

## X-Ray Technology

(See "Radiologic Technology.")

# Zoology

#### la GENERAL ZOOLOGY (5)

Three lecture hours and two three-hour lab periods per week.

Prerequisite: High school Biology with grade of B or better, or Biology 10a or 10b with a grade of C or better.

An introduction to the facts and principles of animal biology, with special reference to the lower forms of animals. (This course is accepted as a laboratory science at both the University of California and Stanford University.)

#### 1b GENERAL ZOOLOGY (5)

Three lecture hours and two three-hour lab periods per week.

Prerequisite: Zoology 1a with a grade of C or better.

A continuation of Zoology 1a devoted largely to the comparative anatomy of the chordates. (This course is accepted as a laboratory science at both the University of California and Stanford University.)

# **Evening College**

## General Information

The Evening College program is designed to serve the total community. Although a large majority of those attending Evening College are adults, many day students avail themselves of the opportunity of taking classes in the evening to round out their programs or to better fit their time schedules.

Approximately 100 classes are offered in 12 instructional areas each semester. Additional courses will be planned for future years as college enrollment increases.

A combined catalog-schedule giving the times, days, classroom locations and course descriptions is printed for each semester and will be available at the college and public libraries prior to registration. The catalog-schedule will be mailed upon request.

A registration fee is charged adults for enrollment in each class for each semester. In those classes using special supplies all students are assessed an additional fee. Students purchase their own textbooks, notebooks, and supplies.

Registration procedures will be described in the Evening College Catalog-Schedule and should be carefully noted.

Classes in the Evening College program are open to persons who are over 18 years of age or who are high school graduates.

Requirements for the Associate in Arts degree are listed elsewhere in this catalog. Requirements for the A.A. degree and the certificate programs may be fulfilled through attending Evening College classes.

The Evening College offers certificate programs in Business Management, Industrial Management and Nursery School Assistant. Additional certificate programs are planned for the future. A cooperative education program is also offered in which students receive units leading to certificates in business management, industrial management, nursery school assistant and toward the A.A. degree.

Many persons complete requirements for lower-division programs in Business Administration, Education, Liberal Arts, and other areas while obtaining the Associate in Arts degree. A complete offering in any one of these transfer programs may not be available each semester.

## Counseling

Day students who plan to attend Evening College classes should first discuss those classes with their day counselor and receive his approval. Counseling services are also provided by the Evening College for persons who wish assistance in planning programs of evening study. For information concerning work in a specific subject, students may consult the instructor of the class in which they may be interested. Any one not registered in the day college who wishes individual counseling should bring transcripts of previous work to his interview. Requests for such assistance should be made at the Registrar's office.

Group counseling sessions, giving general information about college degrees and the organization of college programs, are scheduled each semester prior to registration. The schedule of classes lists times and location of these sessions.

# Eligibility

Certain classes have prerequisites which are described in the Evening College Catalog Schedule.

## Faculty

The Evening College faculty includes teachers from the regular college staff, teachers from nearby colleges and schools, and persons from business, industry, the professions, and other areas of specialization.

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