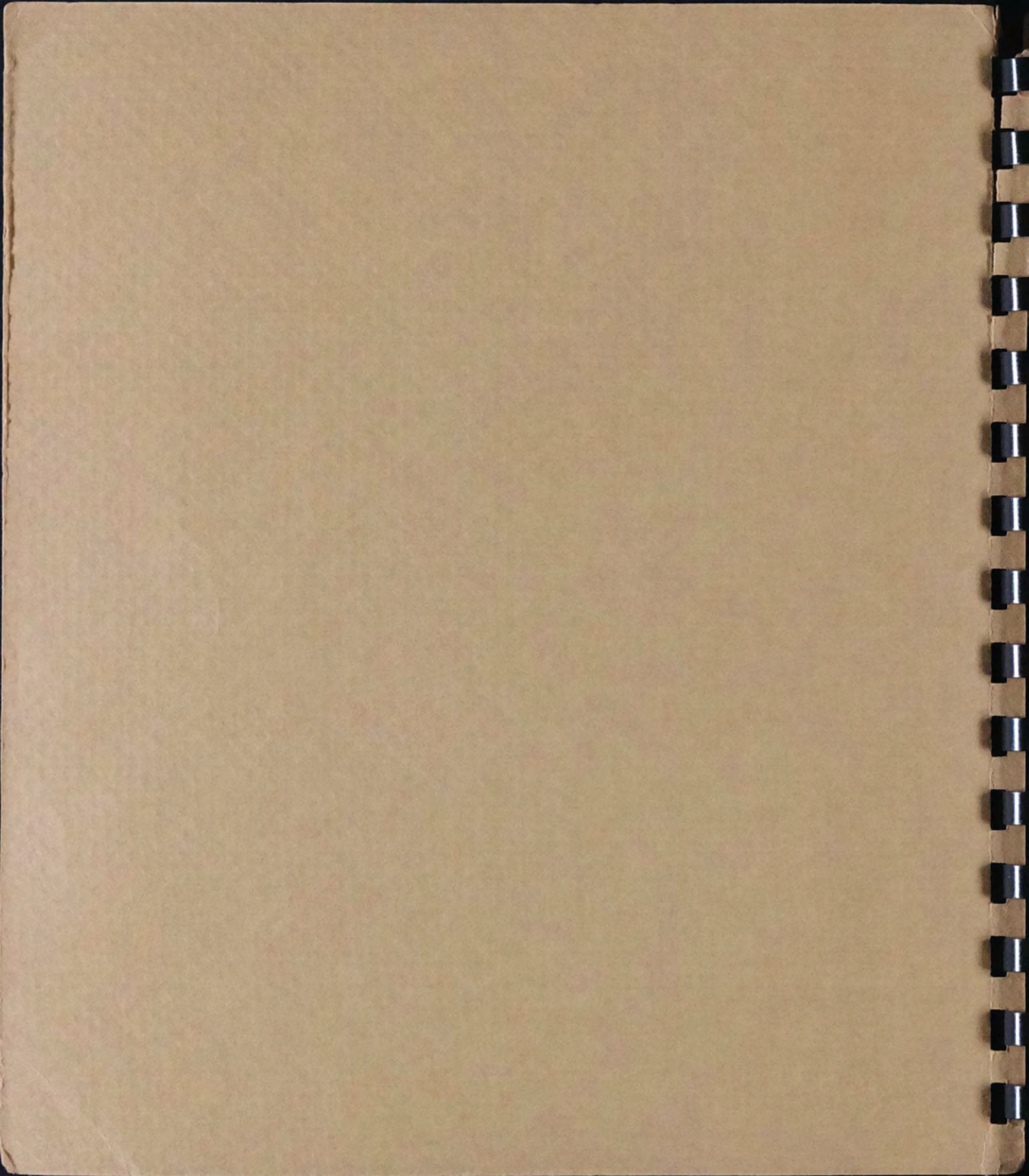


*Cañada*  
'76





Cañada College, a community college  
within the San Mateo Community College District,  
is accredited by the Western Association of Schools and Colleges.

4200 Farm Hill Blvd., Redwood City, California 94061 Phone (415) 364-1212

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# Calendar for 1976-1977

## SUMMER SESSION, 1976

**June 21-July 30** Six-week courses

**June 21-Aug. 13** Eight-week courses

**June 21-Aug. 27** Ten-week courses

## FALL SEMESTER

**Aug. 25-Sept. 8** Counseling/Registration

**Sept. 6** Labor Day holiday

**Sept. 9** Admission Day holiday

**Sept. 13** Day and Evening classes begin

**Sept. 18** Saturday classes begin

**Sept. 25** Last day to add new classes

**Oct. 4** 1st Census Day

**Oct. 25** Veterans Day holiday

**Nov. 12** Mid-term grade reports due

**Nov. 15-Dec. 17** Preregistration-Counseling

**Nov. 22** 2nd Census Day

**Nov. 25-27** Thanksgiving recess

**Dec. 3** Last day to apply for graduation

**Dec. 18-Jan. 1** Winter recess

**Jan. 10-15** Registration, continuing students

**Jan. 20-28** Final examinations

**Jan. 27** Evening classes close

**Jan. 28** Day classes close

**Jan. 29** Saturday classes close

## SPRING SEMESTER

**Jan. 25-Feb. 2** Counseling/Registration

**Feb. 7** Day and evening classes begin

**Feb. 11** Lincoln Day holiday

**Feb. 18** Last day to add Day & Evening classes

**Feb. 19** Saturday classes begin

**Feb. 21** Washington Day holiday

**Feb. 26** Last day to add Saturday classes

**Feb. 28** 1st Census day

**April 1** Mid-term grade reports due

**Apr. 4-9** Spring recess

**Apr. 11-May 20** Preregistration-Counseling

**April 18** 2nd Census day

**April 22** Last day to apply for graduation

**May 16-21** Registration, continuing students

**May 30** Memorial Day holiday

**June 10-20** Final examinations

**June 11** Saturday classes close

**June 13** Evening classes close

**June 14** Commencement

**June 20** Day classes close

## SUMMER SESSION, 1977

**June 27-Aug. 5** Six-week courses

**June 27-Aug. 19** Eight-week courses

**June 27-Sept. 2** Ten-week courses

# Board of Trustees Administration

## BOARD OF TRUSTEES

**Eleánore D. Nettle**  
(Since 1956)  
Housewife

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

**Robert A. Tarver**  
(Since 1953)  
Attorney

**James R. Tormey, Jr.**  
(Since 1971)  
Attorney

**Carl E. Ward**  
(Since 1960)  
Financial Consultant

**Glenn P. Smith**  
Chancellor-Superintendent

## COLLEGE ADMINISTRATION

**J. William Wenrich**  
President

**John H. Rhoads**  
Director, Operations

**Ruth K. Nagler**  
Director, Community Services

## INSTRUCTION SERVICES

**Samuel A. Ferguson**  
Dean of Instruction

**Gilberto S. Villarreal**  
Director, Continuing Education

**Florence M. Chan**  
Chairman, Library

**Pasquale S. D'Epiro**  
Chairman, Media Learning Center

## STUDENT SERVICES

**William J. Walsh**  
Dean of Students

**Joseph J. Marchi**  
Director, Counseling

**Ella Turner Gray**  
Director, Student Services

**(Vacant)**  
Director, Admissions and Records

## ACADEMIC DIRECTORS

**John C. Forsythe, Jr.**  
Director, Natural Science

**Byron R. Skinner**  
Director, Social Science

**Arthur J. Katz**  
Director, Business

**Gerald M. Messner**  
Director, Humanities

**Richard W. Anderson**  
Director, Recreation and Physical  
Education

# Faculty 1976-77

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

**Aarons, Bernard L.** (1960)

Geology, Geography  
B.S., Pennsylvania State College  
M.S., Univ. of California,  
Berkeley

**Anderson, Richard W.** (1970)

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

**Andrew, Alan** (1968)

Mathematics and Physics  
B.S., University of Nebraska  
M.S., Ph.D., California Institute of  
Technology

**Ashley, Lyman C.** (1968)

Physical Education  
B.S., M.A., California State  
Polytechnic College

**Batch, Robert W.** (1965)

Chemistry  
B.S., Tufts University  
M.S., Northeastern University

**Bates, Herman D.** (1971)

Psychology  
A.B., Western Reserve Univ.  
A.M., University of Michigan

**Berdon, Jean D.** (1969)

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

**Bradley, Gartley K.** (1975)

Food Technology  
A.A., San Jose City College

**Branstrom, Marvin J.** (1970)

Biology, Health Education  
B.A., M.A., San Jose State College

**Campbell, Lester S.** (1969)

Psychology, Counselor  
B.S., Bethune Cookman  
M.A., San Francisco State College  
Ph.D., Cal. Professional School of  
Psychology

**Carpenter, Joanne** (1975)

Economics, Law  
B.A., Calif. State Univ. San Fran-  
cisco  
M.S., Univ. of Wisconsin  
J.D., Hastings School of Law

**Chan, Florence M.** (1968)

Library  
B.A., University of British  
Columbia  
M.L.S. Univ. of California,  
Berkeley

**Chanslor, Lois S.** (1967)

Physical Education  
B.A., University of Nevada  
M.A., San Jose State College

**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

**Connolly, Ethel** (1975)

Tourism

**Cory, Genevieve H.** (1968)

Home Economics  
B.S., University of Nevada  
M.A., Ph.D., Univ. of California,  
Berkeley

**Cowan, Curtiss** (1974)

Interior Design  
B.A., Reed College

**Crockett, R. Kent** (1965)

Speech, English  
B.A., M.A., San Jose State College

**Cunningham, Lois** (1971)

Social Science, Sociology  
B.A., Briar Cliff College  
M.A., St. Louis University

**Curtis, Robert M.** (1967)

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

**Damon, Rosemary W.** (1970)

Business  
B.S., Univ. of California, Berkeley  
M.B.A., Stanford University

**de la Rocha, Gilberto P.** (1968)

Counselor, English Institute  
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

**D'Epiro, Pasquale S.** (1961)

Media Learning Center  
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
- Egan, Philip F.** (1971)  
Fine Arts  
B.A., Indiana University  
B.F.A., Kansas City Art Institute  
M.F.A., Pennsylvania State Univ.
- Elkins, Samuel W.** (1948)  
Biology, Health Education  
B.A., University of California  
Berkeley  
M.A., Columbia University
- Ellett, Melvin K.** (1952)  
Drama  
A.B., M.A., Ph.D., Stanford  
University
- Eyer, Dianne M.** (1970)  
Home Econ., Psychology  
Counselor  
B.S., M.S., Purdue University  
M.A., San Francisco State
- 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)  
Life Sciences  
A.A., San Mateo Junior College  
A.B., A.M., Stanford University
- Fraknoi, Andrew G.** (1972)  
Astronomy, Physics  
B.A., Harvard College  
M.A., Univ. of California,  
Berkeley
- Fries, Robert D.** (1973)  
Art  
B.A., California State  
University, L.A.  
M.A., University of California,  
Berkeley
- Friesen, John B., Jr.** (1963)  
English  
A.B., M.A., Univ. of California,  
Berkeley
- George, Rosemary** (1974)  
Library  
A.A., College of San Mateo  
B.A., San Francisco State  
M.L.S., San Jose State
- Gilman, Frederick L.** (1956)  
Cooperative Education  
B.S., Univ. of California, 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., Univ. of California, Berkeley
- Gonzales-Mena, Janet** (1974)  
Early Childhood Education,  
Psychology  
A.B., Univ. of Cal., Davis
- Gowan, Jean** (1975)  
Health Education  
B.S., M.S., Univ. of  
Minnesota
- Gray, Ella E.** (1969)  
Director of Special  
Programs  
B.S., Southern University,  
Louisiana  
M.S., University of Nebraska
- Gray, Gordon M.** (1958)  
Physical Education and Recreation  
Education  
B.A., Univ. of California, Santa  
Barbara  
M.A., San Francisco State College
- Gunderson, Peter K.** (1973)  
Geography  
B.S., Michigan State  
University  
M.A., Wayne State University
- Hancock, Michael P.** (1969)  
Sociology  
B.A., San Francisco State College  
M.S.W., San Francisco State  
College
- Harris, Donald C.** (1969)  
English, Spanish  
B.A., Howard University  
M.A., San Francisco State College
- Hartley, Elizabeth** (1975)  
Court Reporting
- Heidsiek, Richard C.** (1968)  
Art  
B. of Art Ed., M.F.A., California  
College of Arts and Crafts
- Hergert, Loretta J.** (1969)  
Health Education and Health  
Counselor  
B.A., M.A., University of Colorado  
Ph.D., University of Utah
- Hinojosa, Ida** (1975)  
English  
A.A., Metropolitan J.C.  
B.A., Univ. of Missouri  
M.A., Univ. of Missouri
- Hoffman, Craig R.** (1965)  
English  
B.A., Univ. of California, Berkeley  
M.A., San Francisco State College
- Holcomb, Nancy C.** (1973)  
Radiologic Technology  
A.A., College of San Mateo  
B.A., California State  
University, San Francisco
- Holle, Fredric 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
- Ienni, Philip C.** (1969)  
Music  
B.S., M.S., Juilliard School of  
Music



- Jeppson, Joseph** (1963)  
History  
A.M., Stanford University  
B.S., LL.B., J.D., University of Utah  
Ph.D., Univ. of California, Berkeley
- 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., University of California, Berkeley
- Katz, Sandra M.** (1964)  
Business  
B.S., M.S., Western Illinois University
- 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, Speech, Counselor  
B.S., Univ. of Minnesota  
M.A., San Francisco State College
- Kilpack, Bennett B.** (1969)  
Sociology, Education  
A.A., College of San Mateo  
B.S., M.S., Southern Oregon College
- Kirwin, Albert W.** (1975)  
Machine Shorthand
- Krueger, John H.** (1968)  
Music  
B.S.M.E., University of Cincinnati  
B.M., Cincinnati Conservatory of Music  
M.A., Colorado College
- La Berge, Robert R.** (1969)  
Administration of Justice  
B.A., M.A., San Jose State College
- Landes, Evelyn Z.** (1974)  
Home Economics  
B.A., Chico State College  
M.A., Stanford University
- Leavitt, James S.** (1971)  
Administration of Justice  
B.A., San Jose State College  
M.P.A., Golden Gate University
- Le Bow, Diane** (1968)  
English  
A.B., Douglass College  
M.A., Univ. of California, Berkeley
- Lepisto, Martin M.** (1968)  
Drama  
B.S., Midland College  
M.A., Northwestern University
- Lewis, Eileen L.** (1974)  
Chemistry, Physics  
B.S., Texas A & M  
M.S., Texas A & M
- Lezchuk, Kathryn**  
Court Reporting
- Loughrey, James R.** (1963)  
Math-Engineering  
B.S., St. Michael's College, Vermont  
M.S., Rensselaer Polytechnic Inst.
- Loughry, Alice P.** (1970)  
Home Economics  
B.S., University of Maryland  
M.S., New York State College of Home Economics
- Mahood, Leland H.** (1964)  
Counselor  
B.A., Whittier College  
B.D., University of Chicago
- Manning, Patrick** (1968)  
Social Science, History  
B.S., California Institute of Technology  
M.S., Ph.D., Univ. of Wisconsin
- Marchi, Joseph J.** (1968)  
Director of Counseling  
B.A., San Francisco State College  
M.A., Columbia University Teachers College
- MacKay, Bernice O.** (1970)  
Counselor  
B.S., University of California, Berkeley  
M.A., San Francisco State
- McGill, Sally J.** (1971)  
Nutrition and Disease  
B.A., University of Oklahoma  
M.A., University of California, Berkeley
- McNamara, Cheryl J.** (1968)  
Physical Education  
B.A., San Jose State College  
M.A., San Francisco State College
- Meek, Austen B. Jr.** (1968)  
Mathematics  
B.A., San Jose State University  
M.A., Bowdoin College
- Messner, Gerald M.** (1964)  
English  
A.B., Stanford University  
M.A., Los Angeles State College
- Miller, Lewis D.** (1971)  
Mathematics, Engineering  
A.A., City College of San Francisco  
A.B., Univ. of California  
M.A., San Jose State  
Ph.D., Stanford University
- Nagler, Ruth K.** (1968)  
Director, Community Services  
B.B.A., City College of New York  
M.A., New York University
- Nicolopoulos, 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
- O'Brien Patricia** (1968)  
B.A., Michigan State University  
M.A., University of Maryland

- Owyang, Walter M.** (1970)  
Psychology  
A.B., Univ. of California, Berkeley  
M.A., San Jose State College  
Ph.D., Univ. of Nebraska
- Pagels, Guerd G.** (1956)  
English  
A.B., Western Washington College  
A.M., Ed.D., Stanford University
- Paresa, Robert F.** (1969)  
Administration of Justice  
A.A., College of San Mateo  
B.S., San Jose State University
- Peer, Karel** (1971)  
Food Technology  
B.A., Whittier College
- Plunkett, Charles R.** (1965)  
English  
A.B., Stanford University  
M.A., San Francisco State College
- Pratt, Melvyn E., Jr.** (1954)  
History, Philosophy  
A.B., Stanford University  
B.D., Yale University  
Ph.D., Stanford University
- Ramos, Richard M.** (1967)  
Spanish  
A.A., Yuba Junior College  
B.A., University of Pacific  
M.A., Stanford University
- Ramsey, Dorothea H.** (1974)  
Home Economics
- Reller, Theodore L., Jr.** (1968)  
Political Science, History  
A.B., M.A., Univ. of California, Berkeley
- Rodriguez, Ernesto** (1970)  
Counselor, Student Development Program  
A.B., M.A., San Francisco State College
- Schey, Robert E.** (1970)  
Counselor  
B.A., M.A., San Francisco State College
- Seid, Melvin L.**  
Food Technology  
B.A., San Francisco State
- Simmons, Gordon T.** (1964)  
Anatomy, Biology  
B.S., D.V.M., Univ. of California, Davis
- Siringer, Norman W.** (1969)  
English  
B.A., M.A., Western Reserve University
- Sitton, Carl V.** (1968)  
Music  
B. Mus. Texas Wesleyan College  
M.A., Mills College
- Skinner, Byron R.** (1968)  
Social Sciences  
B.A., Western Michigan University  
M.A., Illinois State Teachers College
- Smith, Kurtwood L.** (1969)  
Drama  
A.A., College of San Mateo  
B.A., San Jose State College  
M.F.A., Stanford University
- Sorensen, Lenora H.** (1975)  
Tourism  
B.A., Texas A & M
- 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  
Ph.D., Washington State
- Steidel, James N.** (1971)  
History, Ethnic Studies  
B.A., Kenrick College  
M.A., Ph.D., Univ. of Southern California
- Stein, Pamela D.** (1969)  
English  
A.B., M.A., Univ. of California, Berkeley
- Stiff, D. Robert** (1961)  
A.B., M.A., San Francisco State College
- Stoney, James M.** (1959)  
Microbiology, Biology  
B.A., M.A., San Francisco State College
- Stringari, Lawrence T.** (1969)  
Psychology  
B.A., M.A., San Francisco State College
- Sutherland, Kenton** (1970)  
English  
B.A., University of Americas  
M.A., Univ. of California, Los Angeles
- 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.
- Thein, Van Raymond** (1970)  
Music  
B.A., M.A., San Francisco State College
- Tobias, William** (1975)  
Food Technology  
A.A., City College of San Francisco
- Todesco, Lora B.** (1974)  
Business  
B.A., San Jose State  
M.A., San Francisco State
- Tovissi, Joseph A.** (1965)  
Mathematics, Counselor  
B.S., Kent State University  
A.M., Stanford University  
M.S., Purdue University
- Varner, Harold W.** (1970)  
Psychology, Sociology, Religion  
B.S., Morehouse  
M.Div., D.Min., Chicago Lutheran Sch. of Theology, Chicago Univ. and American Foundation of Religion and Psychiatry, New York City
- Vial, Silvano A.** (1964)  
Physical Education  
B.S., University of Idaho  
M.A., Stanford University

**Villarreal, Gilberto S.** (1968)  
 Director, Continuing Education  
 B.A., San Jose State University  
 M.A.T., Stanford University

**Volk, Adolph M.** (1972)  
 Food Technology

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

**Wenrich, J. William** (1975)  
 President  
 B.A., Princeton  
 M.A., Univ. of Michigan  
 Ph.D., Univ. of Michigan

**Westover, Ross W.** (1962)  
 Physical Sciences  
 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

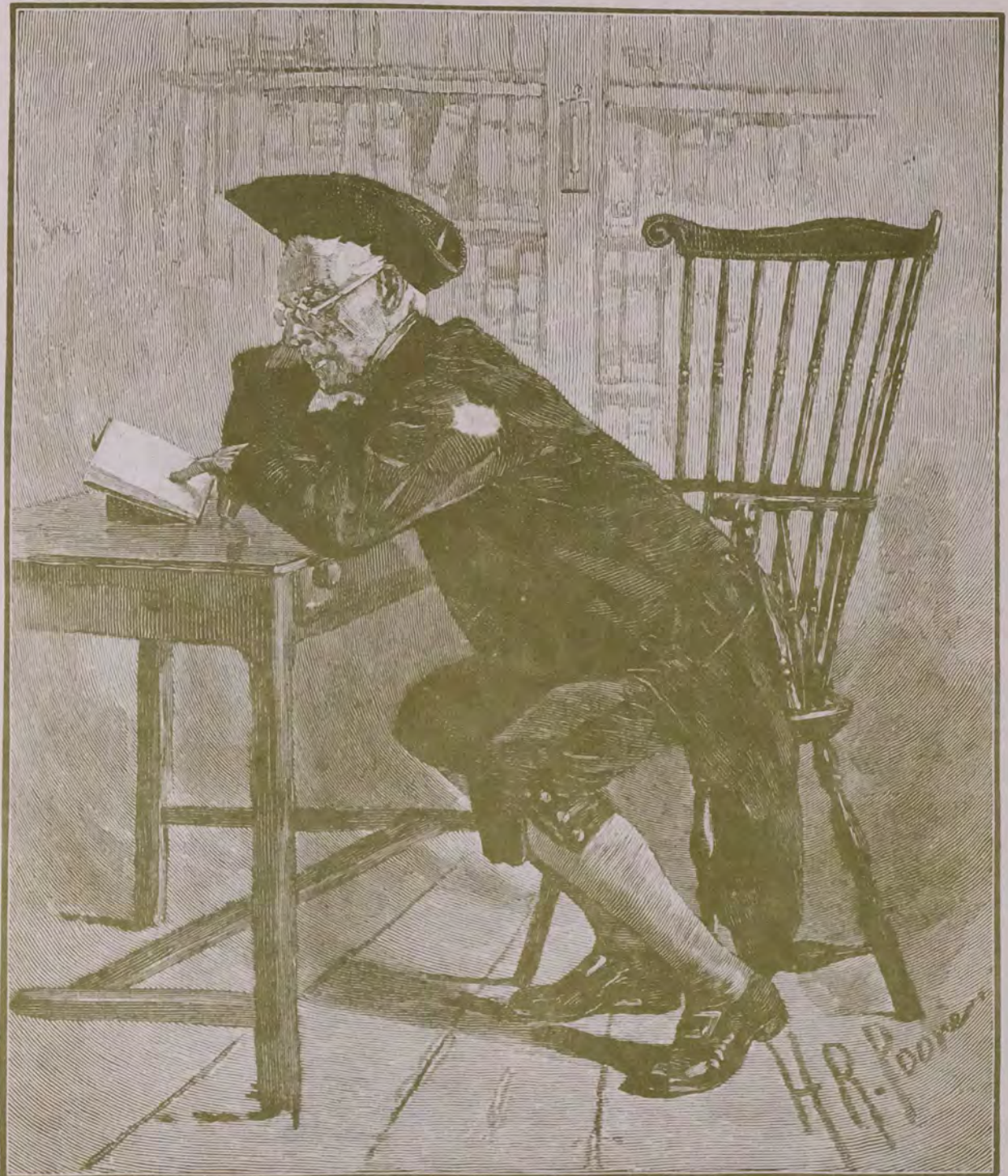
**Wortz, Eleanor T.** (1964)  
 Business  
 B.S., Catawba College  
 M.A., San Jose State College

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

**Young, Frank C.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 opened in 1968. Its 131-acre site is located in the western foothills of Redwood City and overlooks the Bay. The college takes its name from Cañada Road, which winds its way through the valley to the west of the college; the Spanish word "cañada" means "long valley."

Cañada is one of three community colleges in the San Mateo Community College District and its primary service area is the southern portion of San Mateo County.

The College expects to enroll some 8,500 day and evening students in the current semester. Instructional offerings cover all of the broad and essential areas of human knowledge, including the arts, sciences, literature, and vocational courses which are offered through a variety of learning environments.

The College's classrooms are small by design and offer the opportunity for students to become personally acquainted with their instructors. A comprehensive student services program includes academic and vocational counseling services, financial aids, tutorial assistance and a full range of student activities.

Cañada is a friendly and open campus. Teachers, students and administrators share delegated responsibilities for curriculum development, the learning processes and the general campus environment as full voting members of various College committees which provide guidance and assistance to the College President.



## PHILOSOPHY OF THE COLLEGE

Cañada College is committed to the idea that all people possess dignity and should have the opportunity to develop their potentials. The College recognizes the unique worth of individual experience and is prepared to help people discern and attain their educational goals.

## GOALS OF THE COLLEGE

In order to implement this philosophy, Cañada College makes these commitments:

1. To develop a love and a reverence for learning, in faculty, staff, and students, through mutual trust and respect.
2. To provide for participation of all members of the community in the educational opportunities of the College, with respect for the contributions which can be made by persons of all ages and backgrounds.
3. To foster understanding about the cultural diversity of the communities we serve—campus, local, national, and international.
4. To offer students the highest quality level of instruction in programs designed for their transfer for further studies at senior colleges and universities.
5. To provide both two-year and certificate programs that will prepare students for career employment and advancement in the occupational areas of their own choice; and, through counseling and other student support services, to assist students in making that choice.
6. To implement and to amplify students' abilities to think critically, to express themselves clearly, and to receive and evaluate information wisely—in short, to provide those skills which assist in becoming better citizens.



## ROLE OF THE FACULTY AND STUDENTS

Cañada College is governed by policies approved by the Board of Trustees of San Mateo Community College District. These policies encourage individuality among the three colleges of the District directed toward the needs and characteristics of the areas they serve.

Cañada College seeks the counsel of its faculty and students through a system of permanent committees and informal consultation. The regular committees are organized under the Faculty Senate, which operates through a Governing Council (elected by the teacher faculty). Student members of committees are appointed by the Associated Students Council.

## ACCREDITATION

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



## LIBRARY

The Cañada Library is housed in the Western-most section of the lower floor of the Campus Center. It is reached by an exterior stairway starting on the Cafeteria (third floor) level, passing the Bookstore, Media Center (second floor) and continuing to the library (first floor).

There are three main service areas. The CIRCULATION/RESERVE BOOK area contains restricted loan material as well as college catalogs from community colleges, and four-year colleges and universities. The REFERENCE AND PERIODICAL area serves the research needs of students. Shelves there are periodical and newspaper holdings and the indexes, the microfilm collection, a variety of reference sources and the card catalog. The bulk of the 39,000 volume book collection is shelved in a central stack in the READING ROOM. Surrounding the stack is table and carrel seating for some 150 students. This room affords a panoramic view of the wooded slopes of Skyline ridge and is an inviting place for quiet study.

## MEDIA LEARNING CENTER

The Media Learning Center is located on the second floor of the Campus Center, directly above the Library. The Center provides an audio-visual laboratory where students can use new technologies and programs in pursuit of learning experiences: remedial, review, enrichment, exploration and reinforcement. The facilities include 14 audio-visual study carrels, 48 listening stations, a recording lab with 12



stations, and TV and 16 m.m. viewing, and the Writing Lab. In addition, there is a circulating collection of 2,500 phono-discs, 40 cassette players and nearly 2,000 tapes, cassettes and media-kits in a wide range of subject interests.

## 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.

## COMMUNITY SERVICES

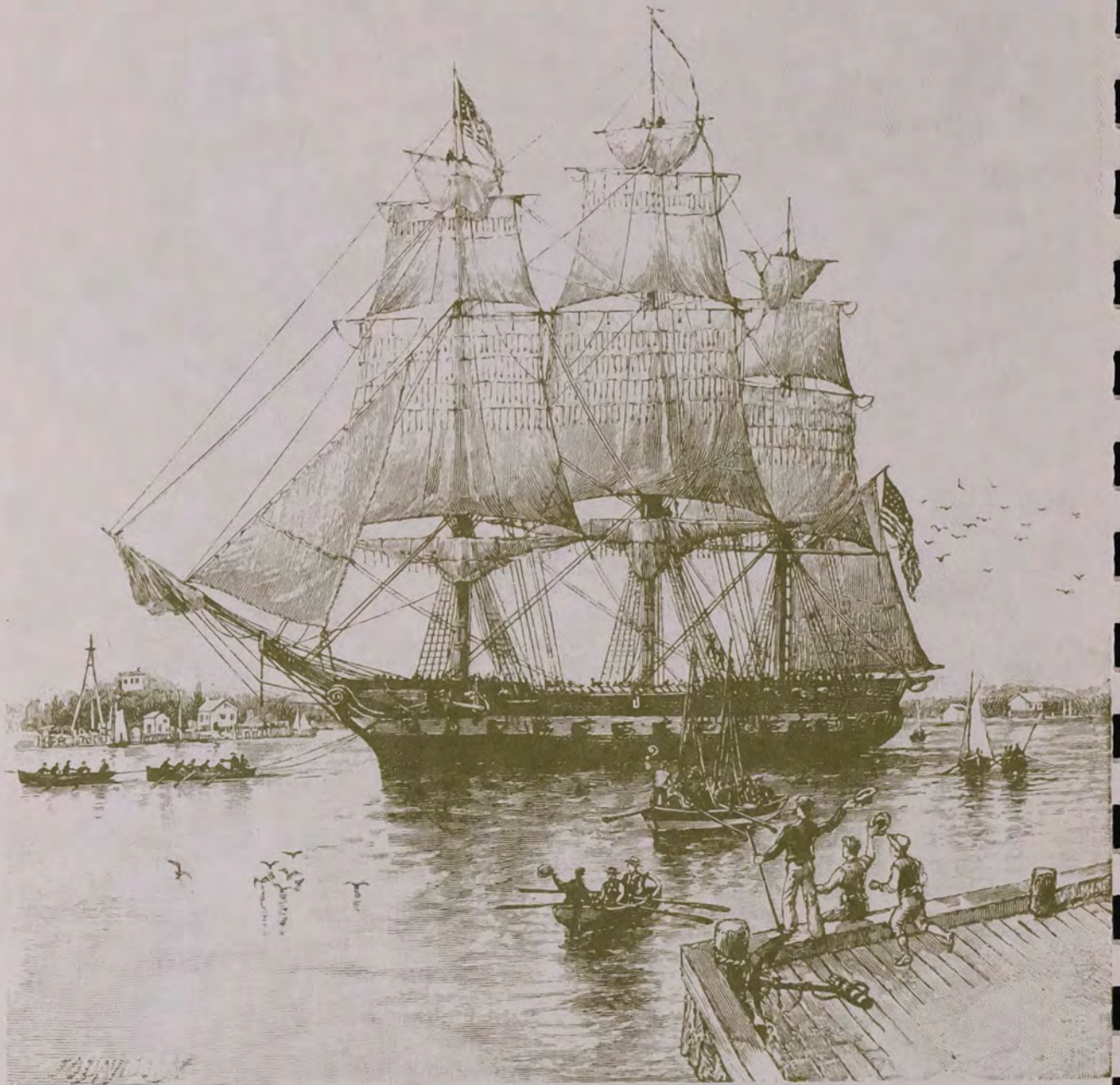
The office of Community Services endeavors to meet the educational, vocational, recreational, cultural and social interests of a diverse, community-based constituency by providing an array of activities and events which supplement and enrich the more formal day and evening curriculum.

Community and campus resources are marshalled each semester to plan and implement single lectures, one-day workshops, non-credit short courses, conferences and seminars, many of which are first-time offerings and some seldom repeated.

## WOMEN'S ACTION CENTER

A warm and friendly place to share information and experiences, the Women's Center is open daily and offers a pre-registration Open House, tours of the campus, an information and referral service, discussion groups, special programs of interest to all women, and peer counseling.





# Continuing Education

## GENERAL INFORMATION

The continuing education program is designed to serve the total community. Although a large majority of those attending evening programs 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 225 classes are offered in 12 instructional areas each semester.

A schedule of classes giving the times, days, and classroom locations is printed each semester and is available at the College and public libraries prior to registration.

A registration fee of \$10 is charged to persons 21 years of age and older 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 schedule and should be carefully noted.

Classes in the evening 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 in the College catalog obtainable in the College bookstore. Requirements for the A.A. and A.S. degrees and the certificate programs may be fulfilled through attending evening classes.

The continuing education office offers certificate programs in Business Management, Industrial Management, Supermarket Management, Public Administration, Small Business Management, Banking and Finance Management, Accounting, Para-Legal Assistant, Occupational Safety and Health, Dietary Technician (Level I & II), Nursery School



Assistant, Teacher Assistant, Interior Design (options: Assistant Designer, Display, Home Furnishings Merchandising) and Tourism. Additional certificate programs are planned for the future. A Cooperative Education program is also offered in which students receive units toward the certificate and the Associate in Arts degree.

Many persons complete requirements for lower-division programs in Business Administration, Education, Liberal Arts, and other areas while obtaining the Associate in Arts or Associate in Science degrees. A complete offering in any one of these transfer programs may not be available each semester.

## COUNSELING

Day students who plan to attend the evening classes should first discuss those classes with their day counselor and receive his or her approval. Counseling services are also provided Monday through Thursday evening 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. Anyone 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.

## ELIGIBILITY

Certain classes have prerequisites which are described in the college catalog. Please check prior to registration.

## FACULTY

The evening 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.

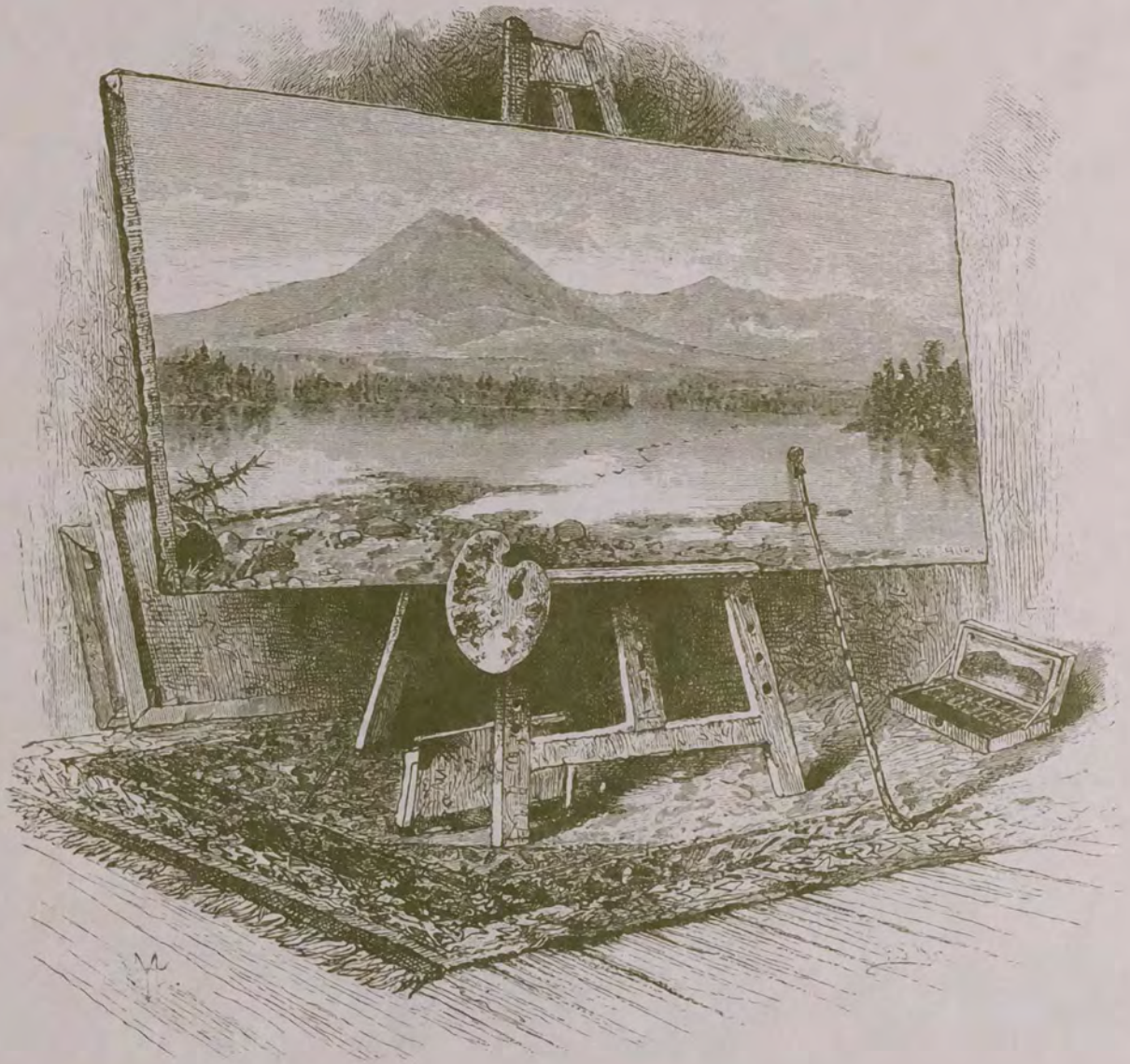
## SUMMER SESSION

San Mateo Community College District offers summer sessions at colleges within the District. Further information may be obtained by calling Cañada's continuing education and summer session office.

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

## SATURDAY CLASSES

Cañada College offers instruction in a wide variety of subject areas on Saturdays. The expanded course offerings allow residents of the community the opportunity to participate in a program of continuing education at their convenience.





# Admissions Information

## ADMISSION ELIGIBILITY

High school graduates and/or persons 18 years of age or over who are legal residents of the San Mateo Community College District may be admitted to Cañada College. (Please refer to "Residence Requirements for Admission" on a following page for information regarding persons who are not legal residents of California for school attendance purposes or who are residents of another California community college district.)

## NON-HIGH SCHOOL GRADUATES

Persons 18 years of age or older who have not graduated from high school may enroll in College courses leading toward the Associate in Arts or Associate in Science degrees and/or transfer to a four-year college or university or in courses recommended by the appropriate high school leading toward the completion of a high school diploma. However, students who use College credits to satisfy high school requirements cannot use these same credits for College graduation or transfer.

## HIGH SCHOOL JUNIORS AND SENIORS

Students who are still attending high school but have special educational needs which cannot be met through high school programs may also enroll at Cañada. Interested students should see their high school counselors regarding the feasibility of concurrent enrollment at Cañada. Written permission and placement recommendations from high school counselors are required before the College will consider applications from high school students.

Students who have completed high school by passing the proficiency examination may enroll at Cañada by submitting evidence of their tests results and a letter of authorization from their high school counselor.

## TRANSFERS FROM OTHER COLLEGES

Academic records for students who have attended accredited colleges and universities will be evaluated by the Office of Admissions and Records, and credit will be given for lower-division work completed. Grade point deficiencies will be treated in accordance with Cañada Academic Standards Policy. (Please refer to "Academic Standards" section of this catalog for additional information.)

## 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, 211 Main St., San Francisco, or 590 Hamilton Street, 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 Office of Admissions and Records 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. Tutorial assistance is available if needed.

Ordinarily 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.

Veterans are encouraged to see the Cañada College veterans coordinator in the Administration Building regarding tutorial assistance and other services.

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.

## PART-TIME STUDENTS

Students taking less than 12 units must submit applications during filing dates, but are not required to submit transcripts; however, part-time students taking courses toward career preparation or transfer are encouraged to have transcripts on file for counseling purposes.





## 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.

Applicants from outside the United States must:

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

Tuition for foreign students is \$1305 per year.

## ADVANCED PLACEMENT CREDIT

Students who have taken the Advanced Placement Test in English and who have scored 3 may receive credit for English 1b; those who have scored 4 or 5 will receive credit for English 1a and 1b. Test scores and a written petition for this credit should be filed in the Office of Admissions and Records.

## CLEP - COLLEGE LEVEL EXAMINATION PLACEMENT

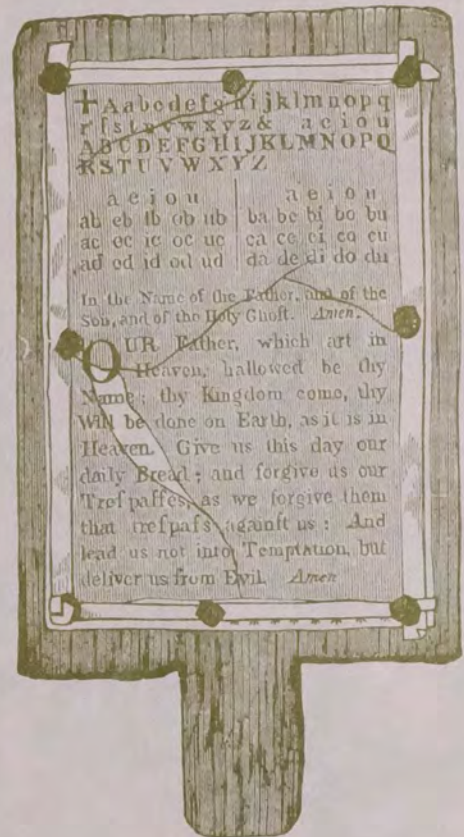
CLEP enables those who have reached the college level of education outside the classroom to demonstrate their achievement and to use the test results for college credit. Those students will be granted six units of credit for each of the five sections of the General Examination of CLEP if they score 500 or more. Credit for Subject Examinations will be given in those areas where there are similar courses offered at Cañada College.

Cañada is a CLEP examination center. For further information, contact the counseling secretary.

## RESIDENCE REQUIREMENTS FOR ADMISSION

Attendance at any one public community college in California is conditioned by certain residence qualifications.

Basically, a California resident for purposes of attendance at a community college is a person 18 years of age or over who



has resided in the State for more than one year immediately preceding the first day of classes.

An applicant who is a resident of the San Mateo Community College District may attend Cañada College, College of San Mateo (San Mateo) or Skyline College (San Bruno). An applicant who is a resident in a part of California not included in a district which maintains community college classes may also attend Cañada College. An applicant who is a legal resident of another community college district must submit a written permit from the district of residence granting permission to enroll in Cañada College.

### NON-RESIDENT FEE

Non-residents will pay a fee of \$1305 for the academic year 1976-77. This fee is payable at the time of registration at the rate of \$652.50 per semester or \$43.50 per unit. Residence status will be determined by the Director of Admissions and Records.

### COSTS TO STUDENTS

While there is no tuition at Cañada College for students whose legal residence is in the San Mateo Community College District, there are living and incidental costs which should be anticipated. All fees are subject to change by the Board of Trustees and, when applicable, by local, State and Federal statutes. These, together with their normal expectable amounts, will include:

Books and supplies .....	\$150 per year
Health Fee .....	\$8.00 per year
Student activity card .....	\$10 per year, \$6 for spring semester
Meals and Housing .....	\$1900 per year
Transportation .....	\$500 per year
Personal expenses (laundry, recreation, medical) .....	\$400 per year

### APPLICATION FOR ADMISSION

Students applying for admission to Cañada College are required to file a written application for admission and are encouraged to submit two transcripts of records from their high school and from each college they have attended. All regular students, and those part-time students, who plan to enroll in an English or Mathematics course, are required to take the placement tests. (See information sheet which accompanies the application to the college for placement testing schedule.)



# Registration



## COUNSELING APPOINTMENTS

Upon completion of admission requirements, all regular students will meet individually, or in small groups, with a counselor for assistance in program planning prior to registration. (See Calendar at the front of the catalog.)

## UNIT LOAD LIMITATIONS

A normal class load will be 15 units; students enrolling in 12 or more units are considered full-time. Students are prohibited from taking more than 18 units without special authorization from the Director of Counseling.

Auditing is not permitted in any course offered for credit.

## PROGRAM CHANGES

Program changes will be permitted only for students who have valid reasons for such requests and who have obtained written permission from their counselors.

A student may not add a new class after the 10th day of the semester except by written permission of the instructor and the endorsement of the Director of Admissions and Records. A student who formally withdraws from a class or from College before the college withdrawal date will receive a "W" grade. If the student does not formally withdraw, the instructor may assign an appropriate grade.



# Grades and Scholarship

## UNITS OF WORK AND CREDIT

A "unit" represents one lecture or recitation hour weekly, for one semester, or three hours in laboratory or other exercises not requiring homework for preparation.

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

## GRADES AND GRADE POINTS

Once a subject has been made a part of a student's program of attendance, his or her record for the subject will be reported to the Director of Admissions and Records 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	0 grade points per unit
INC-Incomplete	Not considered in determining grade point average
CR-Credit	Not considered in determining grade point average
NCR-No credit	Not considered in determining grade point average
W-Withdrawn	Not considered in determining 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 arrangement for completion of the work. A grade of "Incomplete" may be replaced only with an A, B, C, D, Credit, No Credit, or F grade. A grade of "W" may not be submitted for an "Incomplete" grade. The "Incomplete" must be made up by the end of the following semester. Additional time may be provided upon approval of the instructor and the Director of Admissions and Records. If the course

is satisfactorily repeated, the student may petition to have the grade of "Incomplete" removed.

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. A "W" cannot be assigned after the final examination in which the course was taken.

## GRADE POINT AVERAGE

The g.p.a. (grade point average) is determined by dividing the total number of grade points earned by the total number of units attempted.

## CREDIT/NO CREDIT

In addition to courses in which only a letter grade may be assigned, each division of the College may determine courses in which a student may elect either a letter grade or a "credit/no credit." These courses will be so indicated on the class schedule. Students in these courses must notify the instructor in writing by the end of the ninth week whether they wish a letter or a credit/no credit grade. No changes are permitted after this time.

A student is limited to a maximum of 12 units of credit/no credit courses, excluding Cooperative Education. This limitation does not apply to students who have achieved an A.A. or higher degree.

The four-year colleges and universities vary widely in the number of credit/no credit courses they accept. Students should consult the catalog of the college to which they may transfer for their regulations in this regard.

## REPEATED COURSES

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

Upon satisfactory completion of a repeated course, the student may petition the Registrar to remove the units attempted, units completed and grade points for the previous course from the cumulative totals on his or her 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 Appeals Committee at the request of the student.

## GRADE ALLEVIATION

A maximum of two semesters or three quarters of work which is substandard and not reflective of the student's present scholastic level of performance may be alleviated and disregarded in the computation of grade point averages under the following conditions:

- (1) A period of at least three years has elapsed since the work to be alleviated was completed.
- (2) Alleviation of work may be accomplished in the following ways:
  - (2.1) Students pursuing the associate degree must have completed 15 semester units (22 quarter units) with at least a 3.0 GPA, or 30 semester units (45 quarter units) with at least a 2.5 GPA, or 45 semester units (67 quarter units) with at least a 2.0 GPA since the work to be alleviated was completed.
  - (2.2) Students pursuing a certificate of achievement must have completed 6 semester units (9 quarter units) with at least a 3.0 GPA, or 12 semester units (18 quarter units) with at least a 2.5 GPA, or 18 semester units (27 quarter units) with at least a 2.0 GPA since the work to be alleviated was completed.
  - (2.3) Students who have already received a certificate of achievement and who then pursue an A.A. or A.S. degree must be governed by the provisions of 2.1
- (3) A semester or quarter is defined as all work attempted during a single academic term. The terms need not be consecutive.

When work is alleviated, the permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete academic history.

## GRADE REPORTS

Grade reports are sent directly to each student at mid-

semester. The mid-term grade report is not made a part of a student's permanent record; it is for information purposes only. Following final examinations at the end of the semester, the student is sent the report of his final semester grades, which become a part of his permanent record.

## 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 Cañada College with a grade-point 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. A nominal fee is charged for transcripts.

## PERSONAL RECOMMENDATIONS

Personal recommendations should be a part of each student's permanent record file. Students should request these recommendations from their instructors or other college personnel; recommendation forms are available from the Office of Admissions and Records.

Personal recommendations are used to provide information on students' personal characteristics and will be sent to prospective employers or colleges at the student's request.

## CONFIDENTIALITY

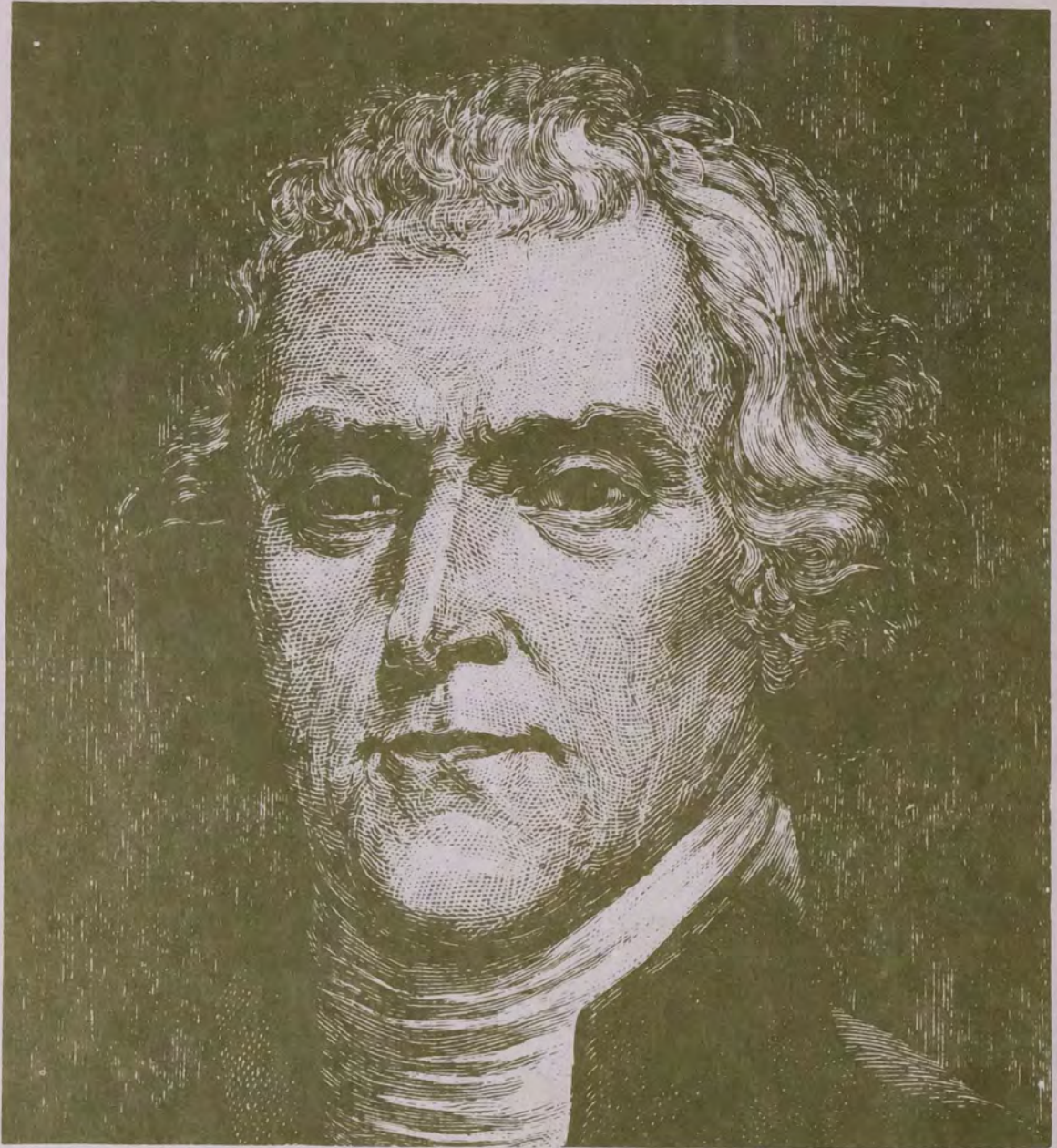
The Family Educational Rights and Privacy Act (Section 438, Public Law 93-380), as amended, requires educational institutions to provide; student access to official educational records directly related to the student; explanation of educational records and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate; that the College must obtain the written consent of the student before releasing personally identifiable information about the student, from records, to other than a list of persons and agen-

cies specified by the Act; and that these rights extend to present and former students of the college.

The Act provides that the College may release certain types of directory information, unless the student submits a request, in writing, to the Records Officer that certain or all such information not be released without the student's consent. Directory information at this college includes: (1) student's name (2) city of residence, (3) participation in recognized activities and sports, (4) dates of enrollment, (5) major field of study, (6) degrees and awards received, (7) the most recent previous educational agency or institution attended, and (8) height and weight of members of athletic teams.

In addition, information regarding students' current class schedules may be made available if requested by other students currently enrolled at the college unless the student has requested that such information be withheld.





THOMAS JEFFERSON.



# Academic Standards

## GRADE-POINT DEFICIENCY

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 or her 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.

Cañada College credit/no credit courses will not affect a student's grade-point deficiency.

## DISQUALIFICATION

A student will be disqualified, if at any time, his or her 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 Student/Faculty Appeals Committee requesting immediate reinstatement if his or her 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 or her total deficiency after disqualification, he or she may petition the Student/Faculty 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.

The College policy regarding disqualification and dismissal is currently being reviewed and may be modified for the 1976-77 College year. Students are encouraged to discuss their potential disqualification or dismissal with their counselor.

## STUDENT GRIEVANCES

Students who feel that they have been unfairly treated by the misapplication of College regulations, or in any respect by a member of the College staff, are encouraged to discuss the matter with their counselor. If the problem at issue is not satisfactorily resolved, they are encouraged to bring the matter to the attention of the Dean of Students who may encourage them to bring the matter to the Student/Faculty Appeals Committee.

## TRANSFER STUDENTS

Students who have been placed on probation or dismissed by another community 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 community 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.

Regulations governing student conduct are subject to change by the Board of Trustees and, when applicable, by local, State and Federal statutes. 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 campus 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 grade reports or other records of their work until such delinquencies have been adjusted to the satisfaction of the 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 or her 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 or her 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.

Students dropped from any class because of this regulation may appeal in writing to the Student/Faculty Appeals Committee within five school calendar days of such drop if they feel there are extenuating circumstances beyond their control which justify their remaining in class. Students making such appeals may, with the permission of the instructor, remain in class until the decision of the Student/Faculty Appeals Committee is reached. The Student/Faculty Appeals Committee will make a recommendation to the instructor after considering such an appeal. In all cases the decision of the instructor is final.

## WITHDRAWAL FROM COLLEGE

A student who formally withdraws from a class or from college before the College withdrawal date shall receive a "W" grade. If the student does not formally withdraw, the instructor may assign an appropriate grade.

A student finding it necessary to withdraw at any time after registration must obtain a petition for withdrawal from his or her counselor. The completed form must be returned within five college days to the Director of Admissions and Registration.

## 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 urged to request emergency leave from the Student Health Center.

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 Student Activities office.

If medical or personal emergency requires absence of as much as two weeks, students must consult their counselors before returning to classes.

Students absent for any length of time may contact their instructors or other students in their classes for assignments missed.



# Student Personnel Services

## PROGRAM PLANNING AND COUNSELING

One of the primary responsibilities of Cañada 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.

Counselors are assigned according to the majors which students have declared. Because it is felt that the relationship between the counselor and the counselee is most important, a student may request a change of counselor by seeing the Dean of Students, Building 8, Room 205.

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 Director of Counseling 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 or she is to see his or her counselor concerning reasons for their 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.

## WOMEN'S RE-ENTRY TO EDUCATION PROGRAM

60% of the students at Cañada are women. To meet the particular needs of the woman who is returning to her education after a period of absence, the Re-entry Program offers special services and classes so she may re-enter school with a minimum of difficulty.

Women of all ages and backgrounds may use the services of a special Women's Counselor. An orientation program and assistance with registration is offered. A core curriculum of classes is available for those who wish to share their learning experiences with other women in a supportive atmosphere.

## TESTING

The Office of the Director of Counseling maintains a service in aptitude, personality, interest 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 from their counselor.

## COLLEGE ORIENTATION

The counseling staff teaches several guidance classes designed to help a student in his over-all adjustment to college. They provide the framework for better self-understanding, a general orientation to college, assistance with study habits, skills required for more effective learning, and a chance for exploration of occupational goals. Special interest discussion groups are provided on topics of common concern to students.

## CAREER INFORMATION

The Cañada Career Center provides career counseling, testing and current occupational information. It is located in the Counseling Center, Bldg. 5, room 208, and is open daily from 8 a.m. to 4:30 p.m.

## HEALTH SERVICE

Assistance with health-related problems is provided by the Health Counselor located in the Health Center, room 213, of the Student Center. Drug counseling, pregnancy counseling, referral to community agencies and services are examples of the available services.

Students are required to submit a health information card with their college application form. In addition, all students are required to submit an emergency card at registration time.

All students are covered by an insurance policy for accidents and emergency illness that occur on the campus or in school sponsored activities. Reports of all accidents must be filed in the Health Office before payment can be authorized.

## STUDENT HEALTH INSURANCE PROGRAM

The College offers accident and health insurance coverage to students on a voluntary basis. Most students who are over 18 years of age are no longer eligible for coverage on their parents' group insurance programs. Additional information and literature can be obtained in the Health Center or the Student Activities Office.

## PLACEMENT SERVICES

The College maintains a placement office, located in the Administration Building, room 203, 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 Student Activities Office maintains a housing file for use by Cañada students. Most of these listings are rooms in private homes; a few are available on the basis of work in exchange for room and board. All arrangements are made between the owner and the student. Dormitories or college-sponsored housing facilities are not available.

## FINANCIAL AIDS

Cañada College participates in federal and state scholarship, loan, grant and work-study programs. In addition, the San Mateo Community College District Foundation administers funds from private sources which are available to Cañada students as scholarships and loans.

The Associated Students have made a limited loan fund available to students who have purchased a student activity card and have an emergency need. The Cañada College Patrons Association, Redwood City Rotary Club, PTA, and Madelyn Cutten have established small emergency loan funds. Students desiring further information should contact the Financial Aids Office.

## STUDENT GOVERNMENT

All enrolled students are members of the Associated Students of Cañada College, whose purpose is to promote the general welfare of the students, to guarantee equality of opportunity among the students, to offer an experience in practice of American democratic government, and to encourage student participation in planning and direction of student activities.

## STUDENT ACTIVITIES AND ORGANIZATIONS

To gain the most from College life, students are encouraged to participate in the activities program and College clubs, which offer diversified opportunities for making both social and educational contacts. Because financial support for these programs comes from the sale of activity cards, students are urged to purchase their cards during registration.

## STUDENT PUBLICATIONS

The **Weathervane**, a weekly publication, provides full coverage of activities on campus and offers invaluable experience to journalism students. The college newspaper is primarily student-controlled.

The **Student Guide** contains information about student organizations, services of the College, College rules, student rights, student disciplinary due process procedures, and the College's staff and governance structure.

The **Student Bulletin** is prepared and distributed by the Activities Office two days a week to announce activities, news events and other items of interest to the faculty and students of the College.

## ATHLETICS

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

Cañada 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:

1. No student may represent his or her college in any athletic contest unless he or she is enrolled in and is passing at all times in a minimum of 12 units of work, and these units can be in any subject matter area including physical education.
2. Courses may be repeated and will count towards the minimum of 12 units of work required for athletic eligibility.
3. Any student desiring athletic eligibility should contact the Director of Athletics.

## INTRAMURAL ACTIVITIES

The Physical Education and Recreation Education Division, in cooperation with the Student Council, offers a wide range of Intramural Activities for men and women that include flag football, volleyball, basketball, table tennis, softball, tennis, soccer, dance, badminton, and bicycling.

Additionally, sports days are scheduled with neighboring colleges, universities, and community colleges. One-half unit of credit is available.



1776 CONTINENTAL BILL

## PERFORMING ARTS

Cañada College offers the following performance groups for your participation: A Cappella Choir, College Chorale, Peninsula Master Chorale; Orchestra, Cañada Symphony Orchestra, Symphonic Band, Cañada Concert Band; Musical Theatre and Opera; Instrumental Ensemble and Stage Band; and numerous drama presentations, including both faculty and student-directed shows. Interested persons should contact the Fine Arts Division Office.

## FOREIGN TRAVEL AND STUDY

A file of current overseas programs for study and travel are kept by one of the counselors. Check with Director of Counseling for more information.

## SERVICES FOR HANDICAPPED

Today more and more individuals are extending and expanding their education. This is certainly true of the handicapped and disabled person, and Cañada College is striving to develop services that might particularly assist these individuals.

The program is designed to meet individual needs. Through supportive services, the College hopes to meet individuals where they are and not isolate them, but encourage and assist them in the "mainstream." Involved is the recognition of the variety of limitations individuals may experience - orthopedic handicaps, blindness and visual impairments, hearing loss and deafness, as well as educational and learning handicaps.

## STUDENT DEVELOPMENT PROGRAM

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

# Scholarships

Cañada College provides a scholarship program to recognize and honor outstanding students. Individuals and organizations provide scholarships for the program. One application form entitles a student to be considered for all scholarship awards available in the program. Application deadlines are March 15 for continuing and transferring students and April 14 for new students. Requests for applications and information should be directed to the Scholarship office. The Scholarship Committee meets each spring to review applications and select recipients for the following school year. Scholarships generally available are:

Donor	Criteria	Amount
Associated Students of Cañada College	Cañada student activity card holder	\$100
Atkinson Foundation	Cañada students continuing as sophomores	(2) \$150 ea.
John A. Blume & Associates, Engineers	Continuing or transferring student in engineering or closely related field	\$100
Cañada College Choir	Vocal music student with B average or higher. Selection by audition.	\$100
Cañada Connoisseurs	New Food Tech students	(2) \$100 ea.
Cinco de Mayo	Students carrying 12 units or more with 2.0 g.p.a. or higher	(several) \$150 ea.
Faculty Wives of Cañada	Continuing student at Cañada	(2) \$100
Dorothea Gansburg Memorial	Continuing Food Technology student at Cañada.	\$150
Golden Gate University Scholarship	Graduating student, 60 units, 3.25 g.p.a. entering Golden Gate University in fall	Tuition
William A. Goss Scholarship Fund	Unrestricted	(3) \$100 ea.
Mabel Leon Scholarship	Awarded by Instrumental Music Department	\$200
Ethel Lindauer Scholarship	Unrestricted	\$100-\$150
Patrons of Cañada College	Students attending Cañada College	(2) \$100 ea.
Redwood City Bobbies		
Wm. L. Faulstich Scholarship	Student in field of Law Enforcement	\$100
Redwood City Citizens Against Racism	Minority students from this area	(several) \$100 ea.
Redwood City Clergy Association	Minority students continuing or transferring	(several) \$100 ea.
San Mateo County Association of Educational Office Employees	Award rotates among 3 colleges.	
San Mateo County Retired Teachers Association	Business majors: one male, one female	(2) \$100 ea.
	Award rotates among 3 colleges. Graduating student, transferring to 4-year college.	\$300
Seventeenth District, California P.T.A.	Students attending Cañada College	(3) \$50 ea.
Victoria Station Incorporated	Continuing Food Technology student at Cañada	\$100
X-Ray Technology Scholarship	Student enrolled in Cañada's X-Ray Technology Program	\$100
Carl E. Ward Scholarship Fund	Unrestricted	\$50





# Program Planning

## TWO-YEAR PROGRAMS

This special catalog section is designed to help a student plan his academic program if he is seeking training or background related to a particular field or major.

The college offers a Certificate of Completion for specialized training and an Associate in Arts or an Associate in Science degree in an occupational program and for transfer to another educational institution to complete training. Students planning to transfer will find general information regarding the state colleges and universities and the University of California in the next section.

## CERTIFICATE OF COMPLETION

A Certificate of Completion (generally 18 to 30 units) is awarded in certain occupational fields upon satisfactory completion of a specific course of study. These programs, developed in cooperation with community advisory committees, have been designed to assist in upgrading persons who are already employed in business, industry or government or those preparing for employment who desire to take all their work in specialized pre-employment courses.

In order to qualify for a certificate, a student must complete required and elective courses with at least a grade point average of 2.0 (C). Parallel courses completed at other accredited institutions upon approval of the division chairman in which the certificate is being earned may be applied toward the certificate. The last 12 units must be taken at Cañada College. Applications for certificates are available from the program coordinator.

Units earned in obtaining a certificate may be applied toward the 60 units required for an A.A. or A.S. degree and may also satisfy the major requirement.

A list of certificates offered by the college follows the Associate in Arts and Associate in Sciences requirements.

## A.A./A.S. DEGREE REQUIREMENTS

Graduation from Cañada College with the Associate in Arts or Associate in Sciences degree is based upon the completion of 60 units of lower-division college work, including the requirements listed below. An application for the degree must be filed in the Director of Admissions and Registration Office during the last semester of attendance.

### A. Residence

The last 12 units or a total of 48 of the 60 units must be completed at Cañada College.

### B. Scholarship

A minimum overall grade point average of 2.0 (C) for the last 60 units.

### C. Major

A major consists of at least 18 semester units 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.

### D. General Education

General Education is the part of studies which introduces the student to areas of study that develop breadth of outlook and contribute to his balanced development. The 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.

1. Natural Sciences

One or more courses for a minimum of three units.

Anatomy 1, 2a, 51  
Anthropology 1  
Astronomy 10, 12, 17  
Biology 1, 2, 3, 9, 10, 20, 39, 40  
Botany 1, 4, 8, 10  
Chemistry 1a, 10, 30a  
Conservation 1  
Electronics 10  
Environment 1, 3  
Food Science 1  
Forestry 1  
Geography 1a  
Geology 1a, 10, 15  
Health Education 1, 3, 4, 5, 6, 7, 8, 9, 11, 12  
Home Economics 9  
Horticulture 100a, 100b  
Meteorology 1  
Microbiology 1  
Music 9  
Oceanography 10  
Physical Science 10  
Physics 2a, 4a, 9, 10, 12, 42  
Zoology 1

2. Social Sciences

One or more courses for a minimum of three units.

(\* American Institutions - " State/Local Institutions)

Economics '11  
Environment '2, '4  
History '4c, '8a, '17a, '17b, '22, '26, '28, '30, '31.  
Political Science '7, '21, '23, '27  
Social Science '1, '2

3. Humanities

One or more courses for a minimum of three units.

Art 1a, 1b, 1c, 2a, 3, 5a, 10, 13a  
Drama 1a, 1b, 10, 24, 25  
English 1b, 21, 23, 24, 25, 27, 28a, 29, 30, 36, 37, 38, 42a, 42b, 45, 46a, 46b, 46c  
French 3, 4, 25a  
German 3, 4  
History 4a, 4b, 13, 14  
Music 1, 6, 8  
Philosophy 6, 7, 20, 21, 23, 24, 25, 27, 28, 35  
Spanish 3, 4, 25a  
Speech Communications 11, 30a, 30b

4. Learning Skills

One or more courses for a minimum of three units

English 1a, 50a, 57a. (for foreign students only)

5. Ethnic Studies

One or more courses for a minimum of three units

Anthropology 34, 36, 37  
Art 30  
English 41, 43, 44a, 44b  
History 8b, 9a, 9b, 32, 33  
Political Science 13  
Psychology 7  
Social Science 32, 33, 34  
Sociology 3  
Speech Communication 12

E. Physical Education

One or more courses for a minimum of two units. May be waived in accordance with college regulations.

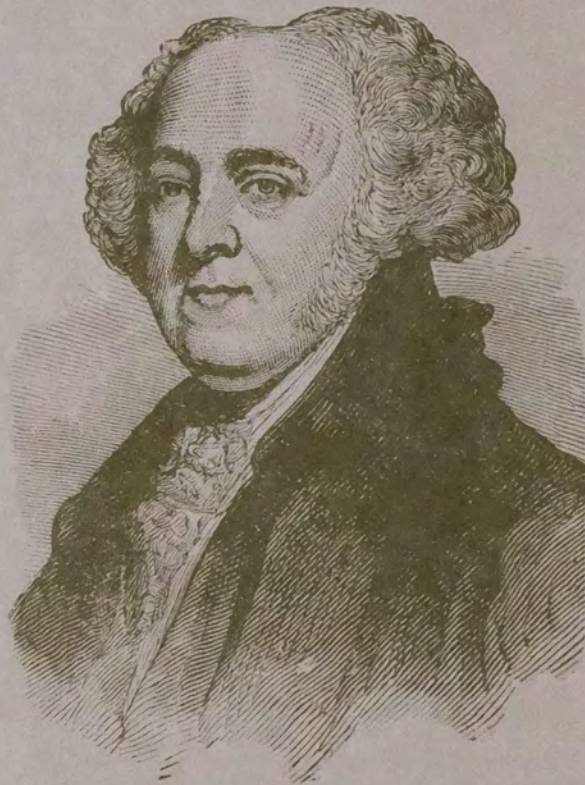


**OCCUPATIONAL PROGRAMS OFFERED AT CAÑADA COLLEGE**  
**ASSOCIATE OF ARTS DEGREE**  
**OR**  
**ASSOCIATE OF SCIENCE DEGREE**  
**OR**  
**CERTIFICATE PROGRAMS**

Career Program	Certificate	A.A.	A.S.	Page
<b>Administration of Justice</b>				43
Law Enforcement	X	X		44
Corrections (Probation)	X	X		44
Industrial & Retail Security	X	X		44
Reserve Police Training Academy	X			44
<b>Banking and Finance</b>				44
Bank Operations	X	X		44
Credit & Lending	X	X		45
Bank Management & Supervision	X	X		45
<b>*Biological Technology</b>			X	45
<b>Business</b>				45
General Clerical	X	X		46
Clerk Typist	X	X		46
Secretarial	X	X		46
Business Administration	X	X		46
Credit & Finance Management	X	X		47
Merchandising	X	X		47
Home Furnishing - Merchandising	X	X		47
Credit Management	X	X		47
Merchandising Management	X	X		47
Court Reporting - Machine	X	X		48
Para-Legal	X	X		48
<b>*Chemical Technology</b>			X	48
<b>Dental Laboratory Radiology</b>			X	49
<b>Early Childhood Education</b>	X	X		49
<b>Environmental Technology</b>			X	49
<b>Food Technology &amp; Management</b>	X		X	50
<b>Gerontology</b>	X	X		50
<b>Home Economics</b>		X		51
Clothing & Textiles		X		51
<b>Interior Design</b>		X		51
Assistant Designer		X		51
Display Designer		X		51
Home Furnishings — Merchandising		X		51

Career Program	Certificate	A.A.	A.S.	Page
<b>Management</b>				
Business Management	X		X	52
Industrial Management	X		X	52
Public Administration Management	X		X	52
Small Business Management	X		X	52
Food Marketing Management	X		X	53
Occupational Safety & Health	X		X	52
Public Employment Labor Relations	X		X	52 53
<b>*Ophthalmic Dispensing</b>	X		X	53
<b>Radiologic (X-ray) Technology</b>			X	53
<b>Travel Industry Career (Tourism)</b>				54
Retail	X	X		54
Wholesale	X	X		54

\*Pending Board and State Approval



JOHN ADAMS.

# Suggested Curricula

## SUGGESTED CURRICULA

Following are suggested courses of study leading to the two-year Associate in Arts or Associate in Science degree or to certificates. Many courses listed in these programs will transfer to the four-year college or universities in satisfaction of lower division requirements. For specific courses, students should confer with their counselor or contact the college to which they intend to transfer.

## ADMINISTRATION OF JUSTICE

The Administration of Justice program at Cañada College is designed to meet the needs of the students and the community. The program emphasizes the professionalization of police officers by training men and women in criminal law, investigative techniques, and other related courses. However, just as important, the program also emphasizes the human relations aspect of police work and the need for officers to appreciate and understand people of all races, ethnic, and religious backgrounds.

To achieve this end, all Administration of Justice majors are urged to enroll in at least one course in Ethnic Studies; and in addition, do course work in community relations, contemporary cultures, and other related areas.

The program now includes three certificates: Law Enforcement; Correction (Probation); and Industrial and Retail Security. The Corrections certificate will prepare pre-service students for positions in community based delinquency prevention and diversion programs and will prepare the continuing student for advanced work leading to employment in probation. The Industrial and Retail Security certificate program is intended to provide individuals entering the security field with a well-rounded educational background so as to prepare them for a professional career. To keep pace with the rapid technical changes taking place in the field of security, it is necessary for security personnel to stay abreast of current standards. Therefore, the curriculum emphasizes basic principles and practical applications in the security field.

The Administration of Justice program at Cañada College is geared so that students, if they wish, may transfer upon completion of the necessary course work to a California State University as an upper division student, and at the same time be prepared at the A.A. degree level for an effective law enforcement career. (Students must complete each course in the core curriculum and in the certificate program with a minimum grade "C".)

### Recommended Core Curriculum

	Units
Admj 1—Administration of Justice .....	3
Admj 3—Concepts in Criminal Law .....	3
Admj 4—Legal Aspects of Evidence .....	3
Admj 7a—Criminal Investigation .....	3
Admj 38—Community Relations .....	3
Admj 17—Justice Management (Recommended for transfer students) .....	3
or	
Admj 19—Patrol Procedures & Report Writing (Recommended for pre- service students) .....	3

### Recommended Administration of Justice Electives

Admj 2—Principles and Procedures of the Justice System (3)	
Admj 7b—Advanced Investigation (3)	
Admj 12—Traffic Control (3)	
Admj 21—Police Report Writing (2)	
Admj 18—Alternatives to Incarceration (3)	
Admj 30—Introduction to Industrial & Retail Security (3)	
Admj 32—Security Administration (3)	
Admj 35—Current Security Problems (3)	
Admj 42—Juvenile Justice: Trends and Treatment (3)	
Admj 44—Drugs: Effects on Individuals & Society (3)	
Admj 45—Police Patrol Canine Management (3)	
Admj 46—Introduction to Counseling (3)	
Admj 47a—Cooperative Education—Internship (2)	
Admj 47b—Cooperative Education (1-4)	
Admj 99—Reserve Police Training Academy (6)	
Admj 20—Women and Justice: New Directions (3)	

### Administration of Justice Certificate Programs

Students working toward an Administration of Justice certificate, will take the following required core curriculum for certificate, 15 units, plus 9 additional units as indicated below:

#### Required Core Curriculum for Certificate

	Units
—Admj 1—Administration of Justice .....	3
—Admj 3—Concepts of Criminal Law .....	3
—Admj 4—Legal Aspects of Evidence .....	3
Admj 7a—Criminal Investigation .....	3
—Admj 38—Community Relations .....	3

#### Law Enforcement Certificate Program

Core Curriculum for Certificate .....	15
Admj 17—Justice Management .....	3
Two electives .....	6

(Note: Pre-service students must take required core curriculum for certificate, 15 units; Admj 17 — Justice Management, 3 units; Admj 19 — Patrol Procedures & Report Writing, 3 units; and one elective, 3 units.)

#### Corrections Certificate Program

	Units
Core Curriculum for Certificate .....	15
Admj 18—Alternatives to Incarceration .....	3
Admj 42—Juvenile Justice: Trends & Treatment .....	3
Admj 46—Introduction to Counseling .....	3

#### Industrial and Retail Security Certificate Program

	Units
Core Curriculum for Certificate .....	15
Admj 30—Introduction to Industrial & Retail Security .....	3
Admj 32—Security Administration .....	3
Admj 35—Current Security Problems .....	3

(Note: Pre-service students will be required to enroll in Admj 47a—Internship.)

#### Reserve Police Training Academy Certificate

With the cooperation of South San Mateo County and the Sheriff's Department, Cañada College offers a "Reserve Police Training Academy Certificate." Students completing the training will also be certified by the State of California for peace officer orientation as mandated by 832 P.C. The primary objective, in addition to skills training, is one of providing the students with a professional standard consistent with providing a service to the public; one free of racial or economic bias. The training consists of the following:

Administration of Justice 99 — Reserve Police Training Academy, 9 units; This is a course of two hundred hours during an 18 week period covering: Criminal Law, Criminal Evidence, Criminal Investigation, Police Community Relations, Patrol Procedures, Traffic Control, Defensive Tactics, Firearms, and First Aid.

## BANKING AND FINANCE

### (Certificate Program)

The Banking and Finance Program at Cañada College, developed in cooperation with the banking industry, is designed primarily for the following two groups of students; (1) those currently employed in the financial industry who wish to upgrade themselves on their jobs and qualify for advancement and promotion, and (2) those who wish to prepare for future employment in a financial organization.

Three areas of specialization offered in the program are Bank Operations, Credit and Lending, and Bank Management and Supervision. Certificates of achievement are awarded in each area to students who complete all required and elective courses with a "C" or better. No course may be applied toward more than one college certificate of achievement. If a course has already been applied toward another certificate, an additional course from the elective list must be completed as a substitute.

Students who are employed can attain important milestones in career development through the two-year degree program and/or the specialized Certificates of Achievement. Both may be earned simultaneously. Courses taken from the approved list may also be applied toward credit for certificates offered to bank employees through the American Institute of Banking. Students who enter the banking industry at a later date may receive retroactive credit for AIB certificates.

## BANK OPERATIONS SPECIALIZATION

This certificate requires 18 units from the required list and 6 units from the elective list.

**Recommended Core Curriculum**

	Units
Bus 40—Principles of Bank Operations .....	3
Bus 18a—Commercial Law .....	3
or	
Bus 64—Business Law .....	3
Bus 51—Business Mathematics .....	3
Bus 12—Introduction to Data Processing .....	3
Bus 58—Human Relations in Business .....	3
or	
Psyc 1a—General Psychology .....	3
Spcm 1a—Basic Public Speaking .....	3

**Electives**

Bus 35	Bus. 93	Mgmt 90
Bus 36	Bus 37	Bus 38
Bus 56	Engl. 1a	Mgmt 92
Bus 90abc	Engl. 57ab	Mgmt 98
Bus 91	Mgmt 47	Psyc 1a
Bus 92abc	Mgmt 85	Spcm 1a

**CREDIT AND LENDING SPECIALIZATION**

This certificate requires 20 units from the required list and 4 elective units.

**Recommended Core Curriculum**

	Units
Bus. Ad. 1a, b—Principles of Accounting .....	5-5
Bus. 36—Consumer Credit Management .....	3
Bus. 37—Commercial Credit Management .....	3
Bus. 38—Credit Investigation and Financial Analysis .....	3
Econ 1a,b—Principles of Economics .....	3-3

**Electives**

Bus. 64	Bus. 38	Bus. 110
Bus. Ad. 18a	Bus. 51	Bus. 124
Bus. 11	Bus. 56	Eng. 1a
Bus. 35	Bus. 81	Eng. 57ab
Bus 37	Bus. 83a	Mgt. 50
Bus 91.		

**BANK MANAGEMENT AND SUPERVISION SPECIALIZATION**

This certificate requires 19 units from the required list and 5 units from the elective list.

**Recommended Core Curriculum**

	Units
Bus. 65—Small Business Management .....	3
or	
Bus. 110—Fundamentals of Salesmanship .....	3
Bus. 124—Marketing .....	3
Bus. Ad. 1a—Principles of Accounting .....	5
Mgt. 50—Financial Management .....	3
Mgt. 92—Techniques of Supervision .....	3
Mgt. 96—Organization for Management .....	3

**Electives**

Bus. Ad. 1b	Bus. 83a	Mgt. 63
Bus. Ad. 18a	Bus. 91	Mgt. 72
Bus. 36	Bus. 110	Mgt. 80
Bus. 37	Bus. 124	Mgt. 85
Bus. 38		Mgt. 90
Bus. 11	Mgt. 47	Mgt. 93
Bus. 12	Mgt. 52	Mgt. 94
Bus. 58	Mgt. 54	Mgt. 98
Bus. 64	Mgt. 55	Psych. 1a
Bus. 65	Mgt. 61	

**BIOLOGICAL TECHNICIAN\***

Career oriented program to allow for employment in the research and pharmaceutical industries. Manual dexterity is a highly desirable trait.

**Recommended Core Curriculum**

	Units
Bio 1—Principles of Biology .....	4
Bot 1—General Botany .....	5
or	
Zoo 1—General Zoology .....	5
MBio—General Microbiology .....	5
Chem 1a—General Chemistry .....	5
Chem 1b—General Chemistry .....	5
Chem 5—Quantitative Analysis .....	4
Chem 12a—Organic Chemistry .....	5
Math 21—Trigonometry .....	3
Math 18—Computer Programming .....	3

\*Pending Board and State approval

**BUSINESS****(Career Programs)**

The following career programs are designed to qualify a student for employment upon completion of a certificate or two-year curriculum. 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.

Clerk-Typist, Secretarial, Credit and Finance Management, or Merchandising Management certificates are awarded with or without the AA degree to students who complete the required courses in the certificate program.

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

- 18 units in Business courses.
- Business 50 or 51, or a 95% score on a Business Mathematics competency exam.
- Business 10—Introduction to Business

**BUSINESS (GENERAL CLERICAL)****Recommended Core Curriculum**

	Units
Bus. 92a, b or c—Typing .....	6
Bus. 91—Bus. English .....	3
Bus. 50 or 51—Bus. Math .....	3
Bus. 56—Bus. Comm .....	3
Bus 58—Human Relations .....	3
Bus. 10—Intro. to Bus .....	3
Bus. 11—Cont. Bus. Econ. Issues .....	3
Bus. 12—Intro. to Data Processing .....	3
Bus. 93—Machine Calculation .....	2
Bus. 100—Office Procedures .....	4
Bus. 66—General Accounting .....	3

**Suggested Electives**

Guid. 1, 2, 3 or 4—Guidance Class (1-1-1-1)
Bus. 35—Personal Money Management (3)
Psychology 1a or 10(3)
Business 64—Bus. Law (3)
Bus 36—Credit Management (3)
Business 83a—Prin. of Real Estate (3)

**Clerk-Typist Certificate Program**

Remedial Courses (if required by testing)

**Core Courses**

	Units
Bus. 10—Introduction to Business .....	3
Bus 92b or 92c—Typing .....	3-6
Bus. 100—Office Procedures .....	4
Bus. 93—Machine Calculation .....	2
Bus. 50 or 51 .....	3
Related Courses .....	3
Bus. 91—Bus. English .....	3
Electives .....	3

Note: Certificate is awarded with or without the AA degree to students who complete the required courses in the certificate program.

**BUSINESS (SECRETARIAL)****Recommended Core Curriculum**

	Units
Bus. 92a or 92b—Typing .....	3
Bus. 91—Bus. English .....	3
Bus. 66—General Acc't .....	3
Bus 50 or 51—Arithmetic .....	3
Bus. 93—Mach. Calculation .....	2
Bus. 10—Intro to Bus .....	3
Bus. 90a-b or c—Shorthand (Gregg) or Bus. 90S a/b—Mach. Shorthand .....	5
Bus. 92b or 92c—Typing .....	3
Bus. 90 b, c—Shorthand (Gregg) or Bus 90S a/b—Mach. Shorthand .....	12
Bus. 100—Office Procedures .....	4
Bus 56—Bus. Communications .....	3

See Business section for division requirements for all Business majors.

**Suggested Electives**

Guid. 1, 2, 3 or 4—Guidance Class (1-1-1-1)
Bus 35—Personal Money Management (3)
Bus. 11—Cont. Bus. Econ. Issues (3)
Bus. 58—Human Relations (3)
Bus 81—Security Investments (3)
Bus. 64—Bus. Law (3)

**Secretarial Certificate Program****Core Courses**

	Units
Bus. 10—Introduction to Business .....	3
Bus. 92b or 92c—Typing .....	3-6
Bus. 90a-b—Shorthand (through 90b) .....	5-12
Bus. 100—Office Procedures .....	4
Bus. 93—Machine Calculation .....	2
Business Elective .....	3
Bus. 50 or 51 .....	3
Bus. 91—Bus. English .....	3
Bus. 56—Business Communications .....	3

Note: Certificate is awarded with or without the AA degree to students who complete the required courses in the certificated program.

**BUSINESS ADMINISTRATION**

(Recommended Program — 18 units in Business required. This curriculum is for the Business student who does not wish to specialize.)

**Recommended Core Curriculum**

	Units
Bus. 10—Intro. to Business .....	3
Bus. 12—Intro. to Data Processing .....	3
Bus. 50 or 51—Bus. Math .....	3
Bus. 58—Human Relations .....	3
Bus. 64/Bus Ad. 18a .....	3
Bus. 66—Gen. Acc't. or Bus. Admin. 1a .....	3-5
Bus. 92—Typing .....	3
Bus. 91—Bus. Engl. .....	3
Bus. 11—Cont. Bus. Econ. Issues .....	3
Bus. 93—Machine Calculation .....	3
Bus. 56—Bus. Communications .....	3
Bus. 65—Small Business Management .....	3

**Suggested Electives**

Bus. 35—Personal Money Management (3)
Bus. 110—Fundamentals of Salesmanship (2)
Bus. 116—Prin. of Retail Merchandising (2)
Bus. 47—Cooperative Education (1-4)
Bus. 36/37—Credit Management (3-3)
Bus. 40—Prin. of Bank Operations (3)
Bus. 18—Security Investment (3)
Guid. 1, 2, 3 or 4—Guidance Class (1-1-1-1)



**BUSINESS ADMINISTRATION****Certificate Programs.****Business Administration Certificate Requirements**

Core requirements .....	15 units
One group of Business options .....	15 units

**Core Courses**

	Units
(Common to any of the Business options)	
Bus. 50/51—Business Arithmetic .....	3
Bus. 10—Introduction to Business .....	3
Bus. 58—Human Relations .....	3
Business Elective .....	3
Bus. 47—Cooperative Education (Recommended)	1-4
Bus. 91/11— Bus. Engl./Contemporary	
Bus. Econ. Issues .....	3

**Business Options**

(In addition to core courses)

**Credit and Finance Management Option**

Bus. 64/Bus. Ad. 18a .....	3
Bus. 35—Personal Money Management or	
Bus. 40—Prin. of Bank Operations .....	3
Bus. 36—Consumer Credit Management .....	3
Bus. 37—Credit Management .....	3
Bus. 66/Bus. Ad. 1a—Accounting .....	3-5

**Merchandising Option**

Bus. 65—Small Business Management .....	3
Bus. 110—Salesmanship .....	2
Bus. 116—Prin. of Retail Merchandising .....	2
Bus. 117—Modern Retail Operation .....	2
Bus. 120—Advertising .....	3
Bus. 124—Marketing .....	3

**Home Furnishings—Merchandising Option**

Art 3a—Color .....	3
Home Ec. 40—Your Home and Environment .....	3
Home Ec. 41—Interiors .....	3
Bus. 65—Small Business Management .....	3
Bus. 116—Prin. of Retail Merchandising .....	2
Bus. 117—Modern Retail Operation .....	2

Note: Certificate is awarded with or without the AA degree to students who complete the required courses in the certificate program.

**Business Administration—General Option**

Any combination of course options as listed above .... 15

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

**Business (Credit and Finance Management)**

(Recommended Program—18 units in Business required.)

**Recommended Core Curriculum**

	Units
Bus. 35—Pers. Money Mgmt. or	
Bus. 40—Bank Operation .....	3
Bus. 50 or 51—Bus. Arith .....	3
Bus. 11—Cont. Bus. Econ. Issues or	
Econ. 1a—Prin. of Econ .....	3
Bus. 10—Intro. to Bus .....	3
Bus. 58—Human Relations .....	3
Bus. 66 or Bus. Ad. 1a—Accounting .....	3-5
Bus. 91—Bus. English .....	3
Bus. 36—Consumer Credit Management .....	3
Bus. 37—Credit Management .....	3
Bus. 56—Bus. Communications .....	3
Bus. 64 or Bus. Ad. 18a—Bus. Law .....	3
Mgmt. 92—Tech. of Supervision .....	3

**Suggested Business Electives**

Bus. 92 a/r—Typing (3)
Bus. 93—Machine Calculation (2)
Bus. 47—Cooperative Education (1-4)
Mgmt. 80—Personnel Mgmt. (3)
Bus. 40—Prin. of Bank Operations (3)
Mgmt. 52—Report Writing (3)
Bus. 12—Intro. of Data Processing (3)
Bus. 116—Prin. of Retail Merchandising (2)

**BUSINESS (MERCHANDISING-MANAGEMENT)**

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.

(Recommended Program - 18 units in Business required.)

**Recommended Core Curriculum**

	Units
Bus. 50 or 51—Bus. Arithmetic .....	3
Bus. 10—Intro. to Bus .....	3
Mgmt. 92—Supervision .....	3
Bus. 120—Advertising .....	3
Bus. 58—Human Relations .....	3
Bus. 110—Fundamentals of Salesmanship .....	2
Bus. 116—Prin. of Retail Merchandising .....	2

Bus. 91—Bus. English .....	3
Bus. 124—Marketing .....	3
Bus. 66—Gen. Acc't .....	3
Bus. 65—Small Business Mgmt .....	3
Bus. 117—Modern Retail Operation .....	2

**Suggested Business Electives**

Bus. 11—Contemporary Business Economic Issues (3)
Bus. 12—Introduction to Data Processing (3)
Bus. 35—Personal Money Management (3)
Bus. 36/37—Credit Management (6)
Bus. 47—Cooperative Education (1-4)
Bus. Ad. 1a—Accounting (5)
Bus. 56—Bus. Communications (3)
Bus. 64—Business Law (3)
Bus. 91—Business English (3)
Bus. 93—Machine Calculation (2)
Bus. 92a—Beginning Typing (3)

**BUSINESS (COURT REPORTING PROGRAM — MACHINE)**

This certificate program is designed to provide all the training required by the State Court Reporters' Board for preparing students to take the State Court Reporter's examination. The program also prepares students for all of the satellite fields related to court reporting; namely, conference reporting, legislative hearing reporting, notereading, transcribing, selected dictation areas, stenographic positions, and machine reporting in a variety of other areas.

**Recommended Core Curriculum**

	Units
Bus 91—Business English .....	4
Bus 163—Vocabulary and Spelling .....	3
Bus 92b or 92c —Typewriting .....	3
Bus 170—Law for Court Reporting .....	5
Bus 164—Legal Terminology .....	3
Bus 166—Courtroom Orientation, Survey & Ethics .....	1
Bus 167—Library Resources/ Legal Procedures .....	1
Anat 71—Human Anatomy .....	3
Bus 56—Business Communications .....	3
Bus 165—Medical Terminology .....	3
Bus 160a—Machine Shorthand Theory, Theory, Goal 70-80 .....	5
Bus 160b—Machine Shorthand, Goal 100 .....	5
Bus 160c—Machine Shorthand, Goal 120 .....	5
Bus 160d—Machine Shorthand, Goal 140 .....	5
Bus 160e—Machine Shorthand, Goal 160 .....	5
Bus 160f—Machine Shorthand, Goal 180 .....	5
Bus 161a—Adv. Legal Dictation, Goal 200 .....	5
Bus 161b—Adv. Legal Dictation, Goal 225 .....	5
Bus 162s—Machine Transcription .....	1
Bus 162b—Dictation Techniques & Office Practice .....	1
Bus 99—Apprenticeship training/ Practicum (20 hours minimum) .....	1/2-2

Students desiring the A.A. Degree should consult the college catalog for the General Education requirements which would need to be taken in addition to the courses in the Court Reporting Program.

Credit is granted for Machine Shorthand as the speed and accuracy requirements are met.

This Court Reporting Certificate Program is designed to prepare the students to qualify for the State Court Reporting examination.

**BUSINESS (PARA-LEGAL)**

The Para-Legal Certificate Program at Cañada College, developed cooperatively with the San Mateo County Bar Association and the San Mateo County Legal Secretaries Association, trains technically qualified personnel to assist attorneys in both civil and criminal matters. Instruction centers on assisting the attorney in interviewing clients and preparing for court appearances, as well as doing legal research and preparing legal documents.

Each student must complete a minimum of eight courses to receive the Para-Legal Certificate. This eight-course minimum required is subject to change. Courses may need to be added to meet the standards developed by the American Bar Association and the State Bar of California.

**Prerequisite to Program**

Six months' experience in legal work (or related field, with consent of instructor) or one year of college-level legal training.

**Recommended Core Curriculum**

	Units
Business 150—Torts and Contracts .....	3
Business 151—Legal Research and Bibliography .....	3
Business 152—Trial Preparation and Study of Legal Ethics .....	3
Business 153—Probate Administration .....	3
Business 154—Family Law .....	3
Business 155—Corporations and Business Entities .....	3
Business 156—Real Estate and Landlord-Tenant .....	3
Business 157—Bankruptcy and Debt Collection .....	3

**CHEMICAL TECHNOLOGY\*****Recommended Core Curriculum**

	Units
Chem 1a/b—General Chemistry .....	10
Chem 5—Quantitative Analysis .....	5
Chem 12a—Organic Chemistry .....	5
Phys 2a—General Physics .....	4
Phys 2b—General Physics (Recommended) .....	4
Math 19—Intermediate Algebra .....	5
Math 21—Analytical Trigonometry .....	3
Elec 10—Introduction to Electronics .....	3

Engl 6—Basic Technical & Report Writing (Recommended) .....	3
Bio 1—Principles of Biology .....	4

\*Pending Board and State approval

## DENTAL LABORATORY RADIOGRAPHY

Cañada College offers a program that combines clinical experience with study in the basic sciences to prepare men and women for careers in Dental Laboratory Radiography. Dental Laboratory Radiographers may work as independent agents providing that filming is requested by a licensed dentist.

The program at Cañada College is offered in cooperation with several Dental Radiographic Laboratories in close proximity to the College. The program is approved by the American Society of Dental X-Ray Technologists.

Prerequisites: High school graduation or equivalent, completion of a course in algebra within two years and a written and oral examination. Biology is recommended. A grade of "C" or better is necessary for progression in the sequence.

### Recommended Core Curriculum

	Units
Anatomy 2a-2b .....	8
Physics 2a .....	4
Psychology 1a .....	3
Nursing 62 .....	3
Radiologic Technology 1 .....	2
Radio Technology 2 .....	2
Radio Technology 2 lab .....	4
Radio Technology 3 and 4 .....	4
Radio Technology 3 lab and 4 lab .....	8
Business 65—Small Business Management .....	3
Business 66—General Accounting .....	3
Art 73—Photography .....	3

## EARLY CHILDHOOD EDUCATION

The Early Childhood Education Certificate Program at Cañada is designed for individuals who wish to work with young children. Upon completion of the curriculum and depending upon the setting selected, the individual may find a variety of opportunities available: Assistant teaching, full teacher, or director of his/her own school. The paraprofessional should be capable of performing duties in the following settings: Children Centers; Head Start Centers; Public and private nursery schools; Cooperatives; Church-affiliated schools, and Kindergarten to third grade in the elementary schools. Courses in this program are appropriate for preschool and elementary school teach-

ing preparation, and practical experience for parents who desire more training to benefit their own families.

### Certificate Program

#### Recommended Core Curriculum

	Units
ECEd 115—Early Childhood Educ. Admin. ....	3
Psyc 5a—Child Development .....	3
Psyc/ECEd 11a—Early Childhood Principles .....	3
Psyc/ECEd 11b—Early Childhood Education Curriculum .....	3
Psyc 12—Child, Family & Community .....	3
SSci/HEc 35—Parent Education .....	3
H Ed 11—Health & Nutrition for Young Children .....	1
H Ed 12—Safety for Young Children .....	1
Coop Ed 47—Cooperative Education .....	1-4
Choice of at least 2 of the following:	6
Art/Mus 44—Fine Arts for Children (3)	
Engl/Educ 4—Children's Literature (3)	
Biol 40—Nature Study (3)	
or	
ECEd 14—Creative Activities (3)	

*Psychology 1a should be taken by transfer students; see counselor.*

#### Suggested Electives

Psyc 23—Infant Behavior (3)
Psyc 21—Intro to Exceptionality (3)
Psyc 1a—General (3)
Bio/H Ec 9—Nutrition (3)
Soc 1—Introduction to Sociology (3)
Soc 3—Minorities in American Society (3)
Anth 2—Cultural Anthropology (3)
Foreign Language choice (variable)

Those interested in completing an A.A. Degree along with or in addition to the certificate program should consult with a counselor.

## ENVIRONMENTAL TECHNOLOGY (SCIENCE ORIENTED)

#### Recommended Core Curriculum

	Units
Envr 1—Intro to the Biological Aspects .....	3
or	
Envr 3—Intro to the Physical Aspects .....	3
Envr 2—Intro to Political & Social Aspects .....	3
Chem 30a/b—Introductory Chemistry .....	8
or	
Chem 1a/b—General Chemistry .....	10
and	
Chem 12a—Organic chemistry .....	5

## 50 Curricula: Environmental Technology to Gerontology

Math 11—Elementary Algebra .....	5
Bio 1—Principles of Biology .....	4
Phys 2a—General Physics .....	4
or	
Phys 4a—General Physics .....	4
MBio 1—General .....	5
Special Courses in your field of emphasis 9 or more units (See Science counselor or Division chairman)	

### Food Technology and Management

#### Recommended Core Curriculum

	Units
Food 50a-51a—Quantity Food Preparation .....	6
or	
Food 50b-51b .....	5
Food 56a—Dining Room Service .....	1
Food 65—Menu Planning .....	2
Food 68a—Sanitation & Safety for Hospitality .....	1
Bus 50 or 51—Bus. Arith or Bus. Math .....	2-3
Food 60a—Food Purchasing .....	2
Food 90—Intro to Food Service/ Hospitality Industry .....	2
Food 52/L52—Food Preparation Supervision .....	3
Food 54a/L54a—Advance Food Preparation .....	4
Food 55a/L55a—Modern Baking .....	2
Food 70—Foods Management Problems .....	2
Food 47—Cooperative Education .....	8-16
Food 54b/L54b—Advanced Food Preparation .....	4
Food 55b/L55b—Modern Baking .....	2

#### Suggested Electives

	Units
Food 47—Cooperative Education .....	1-4
Food 67—Kitchen Aide Training .....	1½
Bus 10—Introduction to Business .....	3
Bus 12—Introduction to Data Processing .....	3
Bus 50—Bus Arithmetic for Food Technology Students .....	2
Bus 66—General Accounting .....	3
Bus 91—Business English .....	3
Bus 92a—Beginning Typing .....	3
Bus 110—Fundamentals of Salesmanship .....	2
Buad 1a—Principles of Accounting .....	5
FSci 1—Introduction to Food Science .....	3

#### Certificate Program

	Units
Food 47—Cooperative Education .....	4
Food 50a/51a—Quantity Food Preparation .....	6
Food 50b/51b—Quantity Food Preparation .....	5
Food 52a/L52a—Food Preparation Supervision .....	3
Food 54a/L54a—Advanced Food Preparation .....	4
Food 56a—Dining Room Service .....	1

Food 60a—Quantity Food Purchasing .....	2
Food 65—Menu Planning .....	2
Food 68—Sanitation & Safety for Hospitality Industry .....	1
Bus 50 or 51—Business Mathematics .....	2

Students are encouraged to complete the certificate program and also the requirements for the Associate in Science degree.

## GERONTOLOGY

The Gerontology program at Cañada College is designed to develop a multi-disciplinary/interdisciplinary focus on the human development of aging and to build from this knowledge of the theories of aging a view of how such theories may be applied through practice.

The Gerontology Program is being developed to prepare individuals to work in occupations serving older persons: educators, counselors, program administrators, allied health, planning, and direct services. The intention is to diversify and upgrade the expertise of individuals already working, as well as develop the first step in a career ladder.

The core curriculum has been approved for continuing education for Nursing Home Administrators.

#### Recommended Core Curriculum

	Units
Sci 15—Aspects of Aging: Introduction to Social Gerontology .....	3
Psyc 5c—Maturity and Aging .....	3
*Soc 4—Sociology of Development & Aging .....	3
Plsc 43—Political & Economic Power: The Question of the Older Citizen .....	3
Biol 9—Nutrition .....	3
SSci 10—Interaction & Communication for the Paraprofessional .....	3
SSci 40—Introduction to Social Service .....	3
Phys 5—Physiology of Aging .....	3
SSci 47—Cooperative Education .....	1-4

Students will be required before completion of the certificate to participate in a field placement (Coop 47) and are encouraged to participate in as many additional units of field placement as possible.

#### Suggested Electives

Psyc/Biol 39—Human Sexuality (1½-3)
Hist 30—Historical Genealogy (3)
Hist 14—Religion in America (3)
Soc 15—Sociology of Region (3)
SSci 36—Life Cycles (3)
Psyc 21—Intro to Exceptionality (3)

\*Being developed for Spring 1977

## Home Economics

### Recommended Core Curriculum (General)

	Units
H. Ec. 4—Creative Food Preparation .....	3
H. Ec. 6—Consumer in the Marketplace .....	3
H. Ec. 7—Home Management .....	2
H. Ec. 9—Nutrition .....	3
H. Ec. 20a—Beginning Sewing .....	2
or	
H.Ec. 20b—Sew to Fit .....	2
or	
H.Ec. 21a—Creative Sewing .....	3
or	
H. Ec. 21b—Custom Sewing .....	3
H. Ec. 35—Parent Education .....	3
or	
H. Ec. 36—Life Cycle: Families in Crisis .....	3
or	
H. Ec. 37—Sociology of Women .....	3
H. Ec. 40—Your Home .....	3

### Emphasis on Clothing and Textiles

Substitute the following for H.Ec. 4, 7, 35, 36 or 40

H.Ec. 21a—Creative Sewing .....	3
H.Ec. 21b—Custom Sewing .....	3
H.Ec. 22—Textiles .....	2-3
H.Ec. 24—Fashion Analysis & Apparel Selection .....	2
H.Ec. 60—Textile Arts .....	2
or	
H.Ec. 61—Stitchery and Quilt-making .....	2

## INTERIOR DESIGN

### Assistant Designer and Display Designer

#### Recommended Core Curriculum

	Units
Intd 1—Your Home and Environment .....	3
Intd 2—Space Planning .....	3
Intd 3—Color for Interiors .....	3
Intd 4—Practicum .....	3
Intd 5a—Display Design .....	3
Intd 6—History of Interiors .....	3
Intd 47—Cooperative Education .....	1-4
or	
H.Ec. 6—Consumer in Market Place .....	3
**Intd 49—Independent Study (Portfolio Project) .....	1-2
Art 1c—History of Art .....	3
Art 5a/5b—Design .....	6
Art 4—Perspectives .....	3
or	
Art 12a—Lettering .....	3
Bus 110—Salesmanship .....	2
or	
Bus 116—Retail Merchandising .....	2
or	
Bus 117—Modern Retail Operation .....	2
Draf 55—Basic Architectural Drafting .....	2
H. Ec 22—Textiles .....	3

### Suggested Electives

Art 2a—Form and Composition (3)
Art 3—Color (3)
Art 73a—Photography (3)
Bus 10—Introduction to Business (3)
Bus 56—Business Communications (3)
Bus 124—Marketing (3)

### Certificate Program

	Units
Intd 1—Your Home & Environment .....	3
Intd 2—Space Planning .....	3
Intd 3—Colors for Interiors .....	3
Intd 4—Practicum .....	3
Intd 6—History of Interiors .....	3
**Intd 49—Independent Study (Portfolio Project) .....	1-2
Art 1c—History of Art .....	3
Art 2a—Form and Composition .....	3
Art 5a—Design .....	3
Art 4—Perspectives .....	2
or	
Art 12a—Lettering .....	2-3
Bus 110—Salesmanship .....	2
or	
Bus 116—Retail Merchandising .....	2
or	
Bus 117—Modern Retail Operation .....	2
Draf 55—Basic Architectural Drafting .....	2
H. Ec 6—Consumer in Market Place .....	3
H. Ec 22—Textiles .....	2-3

### Suggested Electives

Art 3—Color (3)
Art 5b—Design (3)
Art 73a—Photography (3)
Bus 10—Introduction to Business (3)
Bus 56—Business Communications (3)
Bus 124—Marketing (3)

### Home Furnishings—Merchandising

#### Recommended Core Curriculum

	Units
Intd 1—Your Home and Environment .....	3
Intd 2—Space Planning .....	3
Intd 3—Color for Interiors .....	3
Intd 4—Practicum .....	3
Intd 5a—Display Design .....	3
Intd 6—History of Interiors .....	3
**Intd 49—Independent Study (Portfolio Project) .....	1-2
Art 1b or 1c—History of Art .....	3
Art 5a/5b—Design .....	6
Bus 50—Business Arithmetic .....	3
Bus 110—Fundamentals of Salesmanship .....	2
Bus 116—Principles of Retail Merchandising .....	2
or	
Bus 117—Modern Retail Operation .....	2
Bus 124—Marketing .....	3
H. Ec 22—Textiles .....	2-3

**Suggested Electives**

- Art 2a—Form and Composition (3)  
 Art 3—Color (3)  
 Art 12a—Lettering (2-3)  
 Bus 10—Introduction to Business (3)  
 Bus 36—Consumer Credit Management (3)  
 Bus 56—Business Communications (3)

**Certificate Program**

	Units
Intd 1—Your Home and Environment .....	3
Intd 2—Space Planning .....	3
Intd 3—Color for Interiors .....	3
Intd 4—Practicum .....	3
Intd 5a—Display Design .....	3
Intd 6—History of Interiors .....	3
Intd 7—Decorating Techniques .....	3
Intd 49—Independent Study (Portfolio Project) .....	1-2
Art 5a/5b—Design .....	6
Bus 50—Business Arithmetic .....	3
Bus 110—Salesmanship .....	2
Bus 116—Principles of Retail Merchandising .....	2
or	
Bus 117—Modern Retail Operation .....	2
H. Ec 22—Textiles .....	2-3

**MANAGEMENT****AS Degree and Certificate Program**

Management programs are offered on weekday evenings and Saturday mornings during both fall and Spring semesters. Classes meet once a week for three hours and carry three units of credit.

All programs lead to a Certificate of Completion, which verifies that students have acquired the specialized training, knowledge and skills needed for management-level advancement. A certificate can be attained by completing 24 units of credit with a grade average of "C".

The Management Programs include both required courses and elective courses which may be selected from a variety of available electives, according to individual needs and interests. After earning a certificate in one program, students may earn a certificate in another program by completing the additional required courses and necessary units of elective work in that second program. For each additional certificate, a minimum of 12 new units is required, including the required core courses from the new certificate field.

**Required Core Courses for all Management Certificates**

	Units
Mgmt. 65—Business & Industrial Economics .....	3
Mgmt 92—Techniques of Supervision .....	3
Mgmt. 96—Organization for Management .....	3

**Required Courses in Specialized Certificate Area****Business Management**

Required core courses (9 units), 12 units of Management electives and:

	Units
Mgmt 99—Introduction to Business Management .....	3

**Food Marketing Management**

Required core courses (9 units), 9 units of Management electives and:

	Units
Mgmt. 105—Supermarket Operations .....	3
Mgmt 106a—Retail Food Merchandising Principles .....	3
Mgmt 106b—Retail Food Merchandising Practice .....	3

**Industrial Management**

Required core courses (9 units), 6 units of Management electives and:

	Units
Mgmt. 77—Industrial Engineering Methods .....	3
and two of the following:	
Qual. 61—Introduction to Quality Control .....	3
Stat. 2—Introductory Statistics .....	3
Mgmt. 61—Industrial Relations .....	3
Mgmt. 71—Materials Management .....	3
Mgmt. 72—Motion Study, etc .....	3
Engg. 50—Introduction to Materials Evaluation .....	3

**Occupation Safety & Health**

Required core courses (9 units) and:

	Units
OSHA 10—Introduction to Occupational Safety and Health .....	3
OSHA 11—Safety & Health Standards, Codes & Regulations .....	3
OSHA 12—Physical Hazards Control I .....	3
OSHA 13—Physical Hazards Control II .....	3
and one of the following:	
OSHA 14—Safety Program Management .....	3
OSHA 15—Construction Safety .....	3

**Public Administration Management**

Required core courses (9 units), 9 units of Management electives and:

	Units
Mgmt. 110—Public Services .....	3
Mgmt. 111—Public Administration Management .....	3

**Public Employment Labor Relations**

Required core courses (9 units) and:

	Units
Mgmt 62—Public Sector, Labor Mgmt Relations .....	3
Mgmt 64—Collective Negotiations in Public Employment .....	3
Mgmt 111—Public Administration Management	3
Mgmt *—Impasse Resolution and Problem Solving Mechanism .....	3
Mgmt *—Public Sector Labor Law & Legislation .....	3

\*To be developed.

**Small Business Management**

Required core courses (9 units), 6 units of Management electives and:

	Units
Mgmt. 99—Introduction to Business Management .....	3
Bus. 65—Small Business Management .....	3
Mgmt 50—Financial Management .....	3

**Electives**

Mgmt. 47—Cooperative Education (1-4)	
Mgmt. 50—Financial Management (3)	
Mgmt. 52—Report Writing (3) (See Engl 6)	
Mgmt. 54—Management Communications (3)	
Mgmt. 55—Dynamics of Group Communications (3)	
Mgmt. 61—Industrial Relations (3)	
Mgmt. 63—Management Planning, Budgeting & Control (3)	
Mgmt. 71—Materials Management (3)	
Mgmt. 72—Motion Study & Method Analysis (3)	
Mgmt. 77—Industrial Engineering Methods (3)	
Mgmt. 80—Management of Human Resources (3)	
Mgmt. 81—Management Styles & Employee Involvement (3)	
Mgmt. 82—Employee, Information & Organizational Success (3)	
Mgmt. 85—Organizational Behavior (3)	
Mgmt. 90—Office Management & Procedures (3)	
Mgmt. 91—Sales Management (3)	
Mgmt. 93—Leadership in Organization (3)	
Mgmt. 94—Creative Problem Solving (3)	
Mgmt. 99—Introduction to Business Management (3)	
Mgmt. 105—Supermarket Operations (3)	
Mgmt. 106—Supermarket Merchandising (3)	
Mgmt. 107—Supermarket Management: Special Problems (3)	
Mgmt. 110—Public Services (3)	
Mgmt. 111—Public Administration Management (3)	
OSHA 10—Introduction to Occupational Safety & Health (3)	
OSHA 11—Safety & Health Standards, Codes & Regulations (3)	
OSHA 12—Physical Hazards Control I (3)	
OSHA 13—Physical Hazards Control II (3)	
OSHA 14—Safety Program Management (3)	
OSHA 15—Construction Safety (3)	
Bus. Ad. 18a—Commercial Law (3)	

Bus. 36—Credit Management (3)
Bus. 37—Credit Management (3)
Bus. 38—Principles of Bank Operations (3)
Bus. 58—Human Relations In Business (3)
Bus. 65—Small Business Management (3)
Bus. 120—Advertising (3)
Bus. 124—Marketing (3)
Engg. 50—Introduction to Materials Evaluation (Nondestructive Testing) (3)
Engl 6—Basic Technical & Report Writing (3)
Qual. 61—Introduction to Quality Control (3)
Stat. 2—Introductory Statistics (3)

**OPHTHALMIC DISPENSING**

A two-year certificate program, pending Board and State approval, is in the developmental process. The program consists of a two part sequence; successful completion of the first year prepares one to be employed as an ophthalmic laboratory technician. The second year of the program prepares one to become an Ophthalmic Dispenser who combines scientific and clinical procedures to fit and adapt lenses or devices to aid or correct visual deficiencies. Please contact the Science Division Office for further information.

**RADIOLOGIC TECHNOLOGY (X-Ray Technology)****Associate in Sciences Degree with a Major in Radiologic 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 Canada 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 course in algebra within two years and a written and oral examination. Biology is recommended. A grade of "C" or better is necessary for progression in the sequence.*

In addition to the College admission application, all students enrolling in the Radiologic Technology program must complete a separate application available from the Life Science Division office. Applications for new or continuing students are available each January for the following fall semester.

**Recommended Core Curriculum**

	Units
Anatomy 2a-2b, Anatomy for X-Ray Tech .....	6
Physics, 2a, General .....	4
Psychology 1a, General .....	3
Nursing 62, X-Ray .....	3
Radiological Tech. 1, Introduction .....	2
Radiological Tech. 2.2L, Clinical Education .....	6
Radiological Tech. 3.3L,4.4L Clinical Education .....	12
Radiological Tech. 5a,5aL,5b,5bL, Clinical Ed. ....	12

**SPECIAL EDUCATION ASSISTANT**

Special Education is a set of educational program and/or services designed to meet the particular needs of exceptional individuals at both ends of the ability-disability spectrum. An individual is considered "exceptional" when it is necessary to alter or provide support services to meet his or her specific needs.

The Special Education Assistant program at Cañada College prepares students, by means of curriculum and experimental work, to become assistants in a Special Education setting. The program encourages students to explore whether or not they have the attitudes, interests and personality to pursue part-time or full time positions in this area.

Two years of training are provided by the program in conjunction with the Associate in Arts degree. The training is designed to enable the person to function in a paraprofessional capacity and at the same time have lower-division requirements met so that work may be extended to a four-year college or university.

**Recommended Core Curriculum**

	Units
Psyc 1a—General Psychology .....	3
or	
Psyc 10—Psychology in Practice .....	3
Psyc 5a—Child Development .....	3
Psyc 11b—Early Childhood Curriculum .....	3
or	
ECE 14—Creative Activities for the Young Child .....	3
Psyc 12—Child, Family, Community .....	3
Psyc 21—Intro to Exceptionality .....	3
Psyc 22—Intro to Developmental Disabilities .....	3
Psyc 23—Infant Behavior .....	3
SSci 47—Cooperative Education .....	1-4

**Suggested Electives**

- Psyc 33—Psychology of Adjustment (3)
- Psyc 45—Principles of Group Interaction  
for the Paraprofessional (3)

- Psyc 46—Introduction to Counseling (3)
- SSci 40—Introduction to Social Service (3)
- SSci 49—Individual Projects (2)

Those interested in completing an A.A. Degree along with or in addition to the certificate program should consult with a counselor.

**TRAVEL INDUSTRY CAREERS****Certificate Programs**

The Travel Industry Careers program is designed for students planning to enter an occupational field of retail travel agent, airlines reservations and ticket counter, local host services, wholesale tour operations, or passenger traffic management. The present program includes two certificates which are: Retail Certificate Program and Wholesale Certificate Program.

**Travel Retail Certificate Program****Recommended Core Curriculum**

	Units
Tourism 4—Introduction to Tourism .....	3
Tourism 10—Basic Procedures— Retail Travel .....	3
Tourism 11—Advanced Procedures— Retail Travel .....	3
Tourism 20—Domestic Airline Tariff and Ticketing .....	3
Tourism 21—International Airline Tariff and Ticketing .....	3
Tourism 47—Cooperative Education or	

\*Tourism 46—Retail Agency Workshop ..... (1-4)

Plus any two of the following:

- Geography 1a—Physical Geography (3)
- Geography 1b—Cultural Geography (3)
- Geography 5—World Regional Geography (3)
- History 4a—History of Western Civilization (3)
- History 8b—Modern Latin America (3)

\*Tourism 46 may be waived for those already employed in the industry as retail travel agents.

**Travel Wholesale Certificate Program****Recommended Core Curriculum**

	Units
Tourism 4—Introduction to Tourism .....	3
Tourism 10—Basic Procedures— Retail Travel .....	3
Tourism 20—Domestic Airline Tariff and Ticketing .....	3
Tourism 21—International Airline Tariff and Ticketing .....	3
Tourism 30—Wholesale Tour Operations— Beginning .....	3



Tourism 31—Wholesale Tour Operations— Advanced .....	3
Plus any two of the following: .....	6

Geography 1a—Physical Geography (3)	
Geography 1b—Cultural Geography (3)	
Geography 5—World Regional Geography (3)	
History 4a—History of Western Civilization (3)	
History 8b—Modern Latin America (3)	

#### Suggested Electives

A Foreign Language .....	3-5
History 4b—History of Western Civilization .....	3
History 9a-9b—Asian Civilization and Heritage .....	3-3
Philosophy 24—Introduction— Regions of the World .....	3
Social Science 10—Interaction and Communication for the Paraprofessional .....	3
Business 92a/b/c—Typing (or proof of equivalency) .....	3
Business 90a/b/c—Shorthand (or proof of equivalency) .....	4-7
Business 50 or 51—Business Math (or proof of equivalency) .....	3
Business Administration 1a or Business 66—Accounting .....	5-3
Business 10—Introduction to Business .....	3
Business 65—Small Business Management .....	3
Business 124—Marketing .....	3
Speech—Communication 1a or 10— Speech Communication .....	3

The following are recommended for foreign students in Travel Industry Programs:

English 57a, 57b—English as a Second Language .....	5-5
Speech-Communication 57a, 57b— Speech for Foreign Students .....	3-3
Political Science 27—American Society .....	5

## TRANSFER PROGRAMS

Students planning to transfer will find general information regarding the state colleges and universities and the University of California in this section. Cañada College also offers the lower division requirements for transfer in most majors to other colleges and universities. Since the requirements vary, it is essential that students—with their counselors—plan their programs at Cañada from the catalogs of the universities or colleges to which they plan to transfer. In this planning, students should review both the degree requirements and the departmental requirements for their majors. It is important also for transfer students to plan with their counselor from the catalogs and departmental requirements of the transfer institutions.

## CALIFORNIA STATE UNIVERSITY AND COLLEGES

A student planning to transfer to a California State University or College, private college or university can usually complete the first two years of his or her work at Cañada College. If all requirements have been met, students transferring to higher institutions may graduate in two years of further full time study. Students 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 they consult with their counselors in order to arrange programs which will meet the requirements for transfer to the institutions of their choice.

College catalogs are on file in the Library. Students may write directly to the Registrar or Dean of the institutions of their choice to obtain catalogs, circulars of information and other data concerning required subjects.

The earlier the students make a decision regarding a higher institution to which to transfer, the better are their chances for meeting all requirements without delay. If they are unable to make this decision when they enter Cañada College they may elect to follow the requirements shown in the General Education curriculum of the California State University and Colleges.

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



## CALIFORNIA STATE UNIVERSITY AND COLLEGES GENERAL EDUCATION REQUIREMENTS

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

### I. NATURAL SCIENCES (Must complete one Life Science and one Physical Science course – one of which must be with laboratory)

\* indicates Lab course

#### Life Sciences

Anatomy \*1, \*2a, \*2b, 51  
Anthropology 1, 4  
Biology \*1, 2, \*3, 9, 10,  
18, 20, \*20L, 39, \*40

Botany \*1, 4, \*10  
Conservation 1  
Environment 1  
Food Science 1  
Forestry 1

Home Economics 9, \*15, 18  
Micro Biology \*1  
Physiology \*1, 5  
Zoology \*1

#### Physical Sciences

Astronomy 10, 12, 17  
Chemistry \*1a, \*1b, 10,  
\*10L, \*30a, \*30b  
Electronics 10  
Environment 3

Geography 1a  
Geology \*1a, \*1b, \*10, 15  
Meteorology 1  
Music \*9  
Oceanography 10

Physical Science 10  
Physics \*2a, \*2b, \*4a, \*4b,  
\*4c, \*9, 10, 12, 42

### II. SOCIAL SCIENCE (Must complete American Institutions requirement: one course marked ' and one course marked '' or a single course marked '')

# indicates Ethnic Studies Courses

Administration of Justice 1  
Anthropology 2, 3, 6, #34,  
#36, #37  
Economics 1a, 1b, 7, '11, 14a,  
27  
Environment ''2, ''4  
Geography 1b, 3, 4, 5

History '4c, 5, 6a, '8a, #8b,  
'17, '17b, ''22, ''26, '28,  
'30, ''31, #32, #33, 37  
Home Economics 6, 35, 36, 37  
Political Science 1, 2, 3, 5,  
'7, #'13, '21, ''23, '27, 40

Psychology 1a, 1b, 4, 5a, 5b,  
5c, 6, #7, 10, 12, 13, 33, 39  
Social Science ''1, '2, 6, 15,  
20, 29, #32, 35, 36, 37, 40  
Sociology 1, 2, #3

### III. HUMANITIES (Choose one course from each of two categories)

# indicates Ethnic Studies Courses

#### Fine Arts

Art 1a, 1b, 1c, 2a, 2b, 3, 4,  
5a, 10, 12a, 13a, 13b, 22a,  
#30, 44  
Drama 10, 14, 16, 17, 20  
Home Economics 40, 41, 60  
Interior Design 1, 2  
Music 1, 6, 8, 11, 19, 22,  
23, 24, 25, 26, 27, 33, 34,  
36, 43, 44

#### Literature

Drama 1a, 1b, 24, 25  
English 1b, 20, 21, 23, 24,  
25, 27, 28a, 29, 29b, 30,  
36, 37(2), 38, 42a, 42b,  
#43, #44a, #44b, 46a, 46b  
Speech Communication 30a, 30b

#### Philosophy

History 13, 14  
Philosophy 6, 7, 20, 21, 23,  
24, 25, 27, 28, 35  
Sociology 15  
**Multi-culture**  
French 3, 4, 25a, 25b  
German 3, 4  
History 4a, 4b, #9a, #9b  
Spanish 3, 4, 25a  
Social Science #33, #34

## IV. BASIC SUBJECTS # indicates Ethnic Studies Courses

English 1a, 2, 4, 6, 7  
 French 1, 2  
 German 1, 2  
 Health Education 1-10  
 Mathematics 10, 13, 16, 17,  
 18, 19, 20, 21, 22, 23a,  
 23b, 25, 28, 29, 30, 31  
 Philosophy 11, 12  
 Social Science 10  
 Spanish 1, 2  
 Speech Communication 1a, 10,  
 #12  
 Statistics 1, 2

## V. ELECTIVES (Maximum of 8 units permitted)

Business 10, 11, 12, 35,  
 51, 58, 64, 66, 83a, 84,  
 91, 92a, 92r  
 Business Admin. 1a, 18a  
 Drama 15  
 Early Childhood Ed 11a,  
 11b  
 Engineering 10  
 French 49  
 German 49  
 Guidance 1, 3, 4, 10  
 Home Economics 4, 7, 20a,  
 21a, 21b, 22, 24  
 Health Education 11, 12  
 Library 1a  
 Management 61, 65, 85, 99  
 Music 40  
 Physical Education 20, 22  
 Psychology 11a, 11b  
 Recreation Education 40,  
 41, 42, 43, 44  
 Social Science 3  
 Sociology 12  
 Spanish 49

## COURSES FROM CAÑADA COLLEGE TRANSFERABLE TOWARD BACCALAUREATE DEGREE CREDIT AT CALIFORNIA STATE UNIVERSITY AND COLLEGES

**Administration of Justice** — 1, 2, 3, 4, 7a, 7b, 12, 17, 18,  
 19, 20, 21, 30, 32, 35, 38, 42, 44, 46, 47, 49, 100.

**Anatomy** — 1, 2a, 2b.

**Anthropology** — 1, 2, 3, 4, 36, 37, 249, 300.

**Art** — 1a, 1b, 1c, 2a, 2b, 3, 4, 5a, 5b, 6a, 6b, 7a, 7b, 8, 10,  
 12, 13a, 13b, 14, 15, 17a, 17b, 22a, 22b, 30, 44, 45, 48d, 53,  
 56, 73a, 73b, 73c.

**Astronomy** — 10, 12, 17.

**Audio-Visual** — 1, 4.

**Biology** — 1, 2, 3, 9, 10, 18, 39, 40.

**Botany** — 1, 4, 10.

**Business** — 2, 3, 10, 11, 12, 35, 36, 37, 38, 40, 47, 48, 51,  
 56, 58, 61, 64, 65, 66, 67, 81, 83a, 84, \*90a, \*90b, \*90r, 91,  
 \*92a, \*92b, \*92c, \*92r, 92x, 93, 100, 101, 106a, 106b, 110,  
 116, 117, 120, 124, 131, 150, 151, 152, 153, 154, 155, 156,  
 157, 164.

\* The maximum transfer credit to be allowed for typewriting  
 courses is 6 units; for shorthand courses, 8 units.

**Business Administration** — 1a, 1b, 18a.

**Chemistry** — 1a, 1b, 5, 8, 9, 10, 10L, 12a, 30a, 30b.

**Conservation** — 1.

**Cooperative Education** — 47.

**Data Processing** — 12, 65.

**Drama** — 1a, 1b, 10, 13a, 13b, 13c, 13d, 14a, 14b, 14c,  
 14d, 14aL, 14bL, 14cL, 14dL, 15, 16, 17, 18, 20L, 24, 25.

**Early Childhood Education** — 11a, 11b, 47.

**Economics** — 1a, 1b, 7, 11, 14a, 27.

**Education** — 1, 2, 3, 47.

**Electronics** — 10

**Engineering** — 10, 19, 20, 22, 35, 36, 37, 38, 48, 51.

**English** — 1a, 1b, 2, 4, 6, 7, 9, 20, 21, 23, 24, 25, 27, 28a,  
 28b, 29, 29b, 30, 31, 36, 37, 38, 41, 42a, 42b, 43, 44a, 44b,  
 46a, 46b, 46c, 50a, 50b, 57a, 57b.

**Environment** — 1, 2, 3, 4, 47.

**Food Science** — 1.

**Food Technology** — 62, 93.

**Forestry** — 1.

**French** — 1, 2, 3, 4, 25a, 25b, 27, 46.

**Geography** — 1a, 1b, 3, 4, 5a, 5b, 5c.

**Geology** — 1a, 1b, 10, 15, 19, 48.

**German** — 1, 2, 3, 4.

**Guidance** — 1, 3, 4, 7, 10.

**Health Education** — 1, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14.

**History** — 4a, 4b, 4c, 5, 6, 8a, 8b, 9a, 9b, 13, 14, 17a, 17b,  
 22, 26, 28, 30, 31, 32, 33, 40.

**Home Economics** — 4, 5, 6, 7, 9, 15, 18, 20a, 20b, 21a,  
 21b, 22, 24, 35, 36, 37, 39a, 39b, 40, 41, 47, 55, 60, 81, 82,  
 83, 90, 91, 92.

**Horticulture** — 50.

**Interior Design** — 1, 2, 3, 4, 5a, 6.

**Journalism** — 1, 2, 3a, 15.

**Library** — 10.

**Management** — 47, 50, 54, 55, 61, 62, 63, 64, 65, 71, 72,  
 77, 80, 85, 90, 91, 92, 93, 94, 96, 99, 104, 105, 106a, 106b,  
 107, 110, 111, 120, 121.

**Mathematics** — 10, 13, 16, 17, 18, 19, 20, 21, 22, 23a, 23b,  
 25, 28, 29, 30, 31, 32, 34.

**Mental Health** — 47.

**Meteorology** — 1.

**Microbiology** — 1.

**Music** — 1, 2a, 2b, 4a, 4b, 5a, 5b, 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 12a, 12b, 12c, 12d, 16, 19a, 19b, 19c, 19d, 20, 22a, 22b, 22c, 22d, 23a, 23b, 23c, 23d, 24a, 24b, 24c, 24d, 25a, 25b, 25c, 25d, 26a, 26b, 26c, 26d, 27a, 27b, 27c, 27d, 28a, 28b, 28c, 28d, 29a, 29b, 29c, 29d, 30a, 30b, 30c, 30d, 31a, 31b, 31c, 31d, 32, 33a, 33b, 33c, 33d, 34a, 34b, 34c, 34d, 35a, 35b, 35c, 35d, 36a, 36b, 36c, 36d, 37a, 37b, 37c, 37d, 40, 41, 42, 43, 44.

**Occupational Safety & Health** — 10, 11, 12, 13, 14, 15.

**Oceanography** — 10.

**Philosophy** — 6, 7, 11, 12, 20, 21, 23, 24, 25, 28, 35, 38.

**Physical Education** — 3, 4, 5, 6, 7, 8, 9, 20, 21, 22, 30, 31, 32, 33, 34a, 34b, 35, 35b, 36a, 36b, 37, 38, 39a, 39b, 40, 41, 42a, 42b, 43a, 43b, 44, 45, 46a, 46b, 47, 48, 49, 50a, 50b, 51, 52, 53, 54, 56, 57, 58a, 58b, 59, 60, 61, 62, 63a, 63b, 64, 65, 66a, 66b, 67, 68, 69a, 69b, 70, 71, 72, 80, 82a.

**Physical Science** — 10.

**Physics** — 2a, 2b, 4a, 4b, 4c, 9, 10, 42.

**Physiology** — 1, 5.

**Political Science** — 1, 2, 3, 5, 7, 13, 21, 23, 24, 25, 27, 28, 40, 41, 48, 49.

**Psychology** — 1a, 1b, 4, 5a, 5b, 5c, 6, 7, 10, 11a, 11b, 12, 21, 22, 23, 33, 42, 43, 44, 45, 46, 48, 49.

**Quality Control** — 61.

**Recreation Education** — 40, 41, 42, 43, 44, 47.

**Social Science** — 1, 2, 3, 6, 10, 11, 12, 15, 20, 29, 30, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44, 45, 47a, 47b, 48.

**Sociology** — 1, 2, 3, 5, 15, 47.

**Spanish** — 1, 2, 3, 4, 25a, 25b, 46, 50a.

**Speech-Communication** — 1a, 10, 30a, 30b, 49, 57.

**Statistics** — 1, 2.

**Tourism** — 4.

**Zoology** — 1.

NOTES: "48" and "49" courses are transferable unless otherwise indicated. There are a few courses which do not appear on the list above which were offered prior to 1975 and were transferable at the time. They will continue to be transferable.

## UNIVERSITY OF CALIFORNIA

A student planning to transfer to one of the campuses of the University of California can usually complete the first two years of his or her work at Canada. In some cases, students may wish to make up high school course deficiencies or grade point average deficiencies. It is important to work with your counselor from the general catalog of the University campus you plan to attend. The current issue of the University publication "Prerequisites and Recommended Subjects" is a helpful planning guide. It lists the requirements for admission, breadth requirements and requirements for the major, all of which should be carefully considered in planning your program at Canada.

Not all Canada courses are designed for transfer to the University of California. The following is a list of those that are transferable to all campuses of the University. Some others may be accepted for transfer credit by a particular campus depending upon your major.

### COURSES FROM CAÑADA COLLEGE ACCEPTABLE AT UNIVERSITY OF CALIFORNIA (ALL CAMPUSES)

**Administration of Justice** — 1 (3); 2 (3); 3 (3); 4 (3); 38 (3); 44 (3).

**Anatomy** — 1 (W/Lab 4).

**Anthropology** — 1 (3); 2 (3); 3 (3); 4 (3); 6 (3); 34 (3); 36 (3); 37 (3); 49 (See Independent Study).

**Art** — Lab c (3,3,3) \*2ab (3,3); \*3 (3); \*4 (2); 5ab (3,3), \*6ab (3,3); \*7ab (3,3); 8 (3); 10 (3); +12a (2); \*13ab (3,3); \*15 (2); +17ab (3,3); 17c(x) (3); +22ab (3,3), \*44 (3); 49 (See Independent Study); +73bc(x) (3,3).

\* Any or all of these courses combined: maximum credit allowed, 16 units.

+ Any or all of these courses combined: maximum credit allowed, 12 units.

° 44 and Music 44 combined: maximum credit allowed, 1 course.

**Astronomy** — 10 (3); 12 (3); 17 (3).

**Biology** — 1 (W/Lab 4); 2 (3); 3 (W/Lab 4); 9 (3); \*10 (3); 18 (3); 39 (1-½); 40 (W/Lab 3); 49 (See Independent Study)

\* See Catalog for limitation of credit

**Botany** — 1 (W/Lab 5); 4 (W/Lab 3); 10 (3) (W/Lab 4).

**Business** — \*12 (3); \*15 (3); 35 (3); \*12, 15 + Math 18, 25: maximum credit allowed, 3 courses.

**Business Administration** — 1a (5); 1b (5); 18a (3).

**Chemistry** — \*Lab (W/Lab 5.5); 5 (W/Lab 4) \*10 (3); 10L (Lab 1); \*12a (W/Lab 5); \*30ab (W/Lab 4,4); 48 (1-3).

\*10 following 1a or 30a: no credit for 10.

30a following 1a: no credit for 30a.

30b and 1b combined: no credit for 30b.

**Chinese** — 1,2 (3,3).

**Conservation** — 1 (3).

**Cooperative Education** — 47 (1-4; maximum 6 units in otherwise transferable areas only).

**Drama** — 1ab (3,3); 10 (3); \*13ab (3,3); \*13cd (3,3) + 14a (3); + 14bcd (3,3,3); +14aLbLcLdL (1-2); \*15 (½-2); \*16 (½-2); \*17 (½-2); \*17a (2); \*17b (1); \*20L (½-2); 24 (3); 25 (3); \*49 (See Independent Study)

\* Any or all of these courses combined: maximum credit allowed, 12 units.

+ Any or all of these courses combined: maximum credit allowed, 12 units.

**Economics** — Lab (3,3); \*7 (3); 11 (3); 14 (3); 27 (3); 49 (See Independent Study).

\* No credit for 7 following 1a or 1b.

**Education** — 1 (3).

**Engineering** — 10 (2); 20 (2); 22 (2); 35 (3); 36 (3); 37 (3); 38 (3); 48 (1-3); 49 (See Independent Study).

**English** — 1a (3); 1b (3); 2 (3); 4 (3); 9 (3); 20 (3); 21 (3); 23 (3); 24 (3); 25 (3); 27 (3); 28a (3); \*28b (3); 29 (3); 29b (3); 30 (3); 31 (3); 36 (3); 37 (1-2); 38 (3); 42ab (3,3); 43 (3); 44 (3); 46ab (3,3); 49 (See Independent Study); 57ab (5,5).

\* Limit with (\*) Drama courses to a maximum of 12 units.

**Environment** — 1 (3); 2 (3); 3 (3); 4 (3); 49 (See Independent Study).

**Food Science** — 1 (3).

**Forestry** — 1 (3).

**French** — 1 (5); 2 (5); 3 (5); 4 (3); 25ab (3,3); 49 (See Independent Study).

**Geography** — 1a (3); 1b (3); 3 (3); 4 (3); 5 (3); 49 (See Independent Study).

**Geology** — \*1a (W/Lab 4); 1b (W/Lab 4); \*10 (3); 15 (3); 49 (See Independent Study).

\* 1a and 10 combined: maximum credit allowed, 1 course.

**German** — 1 (5); 2 (5); 3 (5); 4 (3); 49 (See Independent Study).

**Health Education** — \*1 (1); \*3 (1); \*4 (1); \*5 (1); \*6 (1); 10 (1); \*11 (1).

\* Any or all of these courses combined: maximum credit allowed, 3 units.

**History** — 4ab (3,3); \*4c (3); 5 (3); 6 (3); 8ab (3,3); 9ab (3,3); 13 (3); 14 (3); \*17ab (3,3); 22 (3); 26 (3); 30 (3); 31 (3); 32 (3); 33 (3); 49 (See Independent Study).

\* 4c and 17ab combined: no credit for 4c.

**Home Economics** — 6 (3); 9 (3); 15 (W/Lab 3); 18 (3); \*20 (2); \*21a (3); 22 (1-3); \*24 (2); 35 (3); 36 (3); 37 (3); +40 (3); +41 (3); +42 (3); +44 (3).

\* 20, 21a and 24 combined: maximum credit allowed, 1 course.

+ 40, 41, 42, 44, Interior Design 1, 2, 6: maximum credit allowed, 1 course.

**Independent Study** — (Maximum credit allowed: 5 units per term in any or all appropriate subject areas.)

**Interdisciplinary Studies** — American Studies (English lab/History 17a-26) (6,6).

**Interior Design** — 1 (3); 2 (3); 3 (3); 6 (3).

**Journalism** — 1 (3); \*2 (3); \*15 (2).

\* Any or all of these courses combined: maximum credit allowed, 6 units.

**Mathematics** — 10 (3); 13 (3); 16 (3); +17 (3); ++18 (3); 22 (2-4); \*23ab (5,5); ++25 (3); 28 (3); 29 (5); \*30 (5); \*31-32 (5,5); 33 (5); 49 (See Independent Study).

\* Check for duplication of credit.

+ 17 and Philosophy 12 combined: maximum credit allowed, 1 course.

++ 18, 25, Business 12, 15: maximum credit allowed, 3 courses.

**Meteorology** — 1 (3).

**Microbiology** — 1 (W/Lab 5).

**Military Science** — 1ab (2,2); 2ab (2,2).

**Music** — 1 (2); 2ab (2,2); 4ab (3,3); 5ab (3,3); 6 (3); 8 (3); \*11abcd (1,1,1,1); \*12abcd (1,1,1,1); \*16 (1); \*19abcd (1,1,1,1); 20 (2-3); \*22abcd (2,2,2,2); \*23abcd (2,2,2,2);

\*24abcd (1,1,1,1); \*25abcd (1,1,1,1); \*26abcd (1,1,1,1); \*27abcd (1,1,1,1); \*28abcd (1,1,1,1); \*29abcd (1,1,1,1); \*30abcd (1,1,1,1); \*31abcd (½,½,½,½); \*32 (1); \*33abcd (2,2,2,2); \*34abcd (1,1,1,1); \*35abcd (1,1,1,1); \*36abcd (1,1,1,1); \*37abcd (1,1,1,1); \*40 (1-3); \*41 (½); \*42 (1); \*43ab (1,1); \*44 (3); 49 (See Independent Study).

\* Any or all of these courses combined: maximum credit allowed, 12 units.

° 44 and Art 44 combined: maximum credit allowed: 1 course.

**Oceanography** — 10 (3).

**Philosophy** — 6 (3); 7 (3); \*12 (3); 20 (3); 21 (3); 23 (3); 24 (3); 25 (3); 27 (3); 28 (3); 35 (3); 38 (3); 48 (1-3); 49 (See Independent Study).

\* 12 and Math 17 combined: maximum credit allowed, 1 course.

**Physical Education** — \*3 through 9 (1-2 units each); +20 (2); +22 (2); +25abcd (2,2,2,2); +26abcd (2,2,2,2); +27abcd (2,2,2,2); \*30 through 47 (1 or 2 units each); 50a (1); 50b (1); 51 (2); \*\*52 (2); \*53 through 85 (1 or 2 units each); 73 (2).

\* Any or all of these courses combined: maximum credit allowed, 4 units.

+ Any or all of these courses combined: maximum credit allowed, 8 units.

\*\* Limit with (\*) Drama courses to a maximum of 12 units.

**Physical Science** — 10 (3).

**Physics** — \*2ab (W/Lab 4,4); \*4abc (W/Lab 4,4,4); +9 (W/Lab 3); \*10 (3); \*12 (3).

\* 2a + 4a: deduct 3 units from 2a

2a + 4c: deduct 1 unit from 2a

2b + 4b: deduct 2 units from 2b

2b + 4c: deduct 2 units from 2b

10 or 12 following 2a or 4: no credit for 10 or 12

+ 9 combined with Music 9: maximum credit allowed, 1 course.

**Physiology** — 1 (W/Lab 5).

**Political Science** — 1 (3); 2 (3); 3 (3); 5 (3); 7 (3); 13 (3); \*21 (3); \*23 (2); 27 (5); 49 (See Independent Study).

**Psychology** — \*1a (3); 1b (3); 4 (3); 5 (3); 6 (3); 7 (3); \*10 (3); 12 (3); 13 (3); 21 (3); 22 (3); 33 (3); 34 (3); 39 (1-½); 42 (1-3); 43 (3); 44 (3); 45 (3); 46 (3); \*\*47 (1-4); 48 (See Independent Study); 49 (See Independent Study).

\* 1a + 10: maximum credit allowed, 1 course.

\*\* Maximum 6 units with any other transferable work experience.

**Recreation Education** — \*40 (2); \*44 (2).

\* Maximum credit allowed, 1 course.

**Social Science** — 1 (3); 2 (3); 3 (3); 6 (3); 15 (3); 20 (3); 29 (3); 32 (3); 33 (3); 34 (3); 35 (3); 36 (3); 37 (3); 38 (3); 40 (3); 41 (2).

**Sociology** — 1 (3); 2 (3); 3 (3); 49 (See Independent Study).

**Spanish** — 1 (5); 2 (5); 3 (5); 4 (3); 25ab (3,3); 49 (See Independent Study).

**Speech-Communication** — 1a (3); 10 (3); 11 (3); 12 (3); 30ab (3,3); 49 (See Independent Study); 57ab (5,3).

**Statistics** — \*1 (3); \*2 (4).

\* 1 and 2 combined: maximum credit allowed: 1 course.

**Zoology** — 1 (W/Lab 5).

## TRANSFER MAJORS OFFERED AT CAÑADA COLLEGE

ASSOCIATE OF ARTS

OR

ASSOCIATE OF SCIENCES DEGREE:

Transfer Majors	AA	AS	Page
Administration of Justice	X		60
Anthropology	X		60
Architecture		X	61
Art	X		61
Biology		X	61
Business Administration		X	61
Chemistry		X	61
Computer Science		X	61
Dental Hygiene		X	62
Pre-Dentistry		X	62
Drama	X		62
Economics	X		62
Electronics		X	62
Engineering		X	63
Engineering Technology		X	63
English	X		63
Environmental Science		X	63
Ethnic Studies	X		63
Fisheries		X	64
Forestry		X	64
Geography	X		64
Geology		X	64
History	X		64
Home Economics	X		64
Industrial Arts	X		65
Interior Design	X		65
Journalism	X		65
Pre-Law	X		65
Mathematics		X	66
Medical Sciences		X	66
Pre-Medicine		X	66
Music	X		66
Natural Resources		X	67
Nursing		X	67
Oceanography		X	67
Occupational Therapy		X	67
Optometry		X	67
Paleontology/Parasitology		X	67
Pharmacy		X	67
Philosophy	X		67
Physical Education	X		68
Physical Therapy		X	68
Physics		X	68
Political Science	X		68
Psychology	X		68
Range Management		X	68
Recreation Education	X		68
Religious Studies	X		68
Sociology	X		69
Speech	X		69
Teacher Preparation	X		69
Pre-Veterinary Medicine		X	71
Wildlife Management		X	71
Women's Studies	X		71

### Transfer Programs

Students who plan to transfer to one of the California four-year colleges or universities must plan their courses of study at Canada College to include the required freshman and sophomore courses of the particular four-year institution. It is necessary that students work closely with counselors in order to fulfill both major and lower division requirements for the college of their choice, including specific courses to be taken at Canada College.

On the following pages are listed the recommended transfer programs for the majors listed, but students should consult the appropriate college catalogs of the senior institution to which they expect to transfer.

### ADMINISTRATION OF JUSTICE

The Administration of Justice program at Cañada College is geared so that a student, if he or she wishes, may transfer upon completion of the necessary course work to a California State University as an upper division student, and at the same time be prepared at the A.A. degree level for an effective law enforcement career.

#### Recommended Transfer Program

	Units
Admj 1 — Introduction to Justice System	3
Admj 3 — Concepts in Criminal Law	3
Admj 4 — Legal Aspects of Evidence	3
Admj 7a — Criminal Investigation	3
Admj 17 — Police Organization & Administration	3
Admj 19 — Patrol Procedures & Report Writing	3
Admj 38 — Community Relations	3
Admj 47 — Cooperative Education — Internship (Law Enforcement, Probation, Security)	2

### ANTHROPOLOGY

#### Recommended Transfer Program

	Units
Anth 1 — Physical Anthropology	3
Anth 2 — Cultural Anthropology	3
Anth 3 — Pre-History	3
Biol 3 — Human Biology	4
Stat 1 — Research Methods	4
Soc 1 — Introduction to Sociology	3
Econ 1a/1b — Principles of Economics	6
Phil 6 — Introduction to Philosophy	3

## ARCHITECTURE

### Recommended Transfer Program

	Units
Math 18/25 — Computer-Basic Fortran .....	3-6
*Math 23a,b — Applied Calculus .....	10
*Phys 2a,b — General Physics .....	8
Foreign Language .....	0-12
Engg 1a — Surveying .....	3
Engg 10 — Engineering and Environment .....	2
Engg 22 — Graphics .....	2
Art 2a — Form and Composition .....	3
Engg 20 — Descriptive Geometry (Recommended) .....	2
Art 5b — Design (Recommended) .....	3

\* Math 30, 31, 32 and Physics 4a,b,c sequence in place of Physics 2a,b are recommended for those contemplating transfer to California State Polytechnic Colleges.

## ART

The student who intends to transfer a major in Art should plan his or her course at Canada 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 or she wishes to transfer.

### Recommended Transfer Program

	Units
Art 1a/b — History of Art .....	6
Art 2a/b — Form and Composition .....	6
Art 5a/b — Design .....	6
Art 13a/b — Drawing .....	6

## BIOLOGY AND APPLIED FIELDS

### Recommended Transfer Program

(Biology, Agriculture, Physiology, Microbiology, Botany, Entomology, Zoology, Physical Therapy, Public Health, Medical Technology, etc.)

	Units
*Math 23a,b — Applied Calculus .....	10
Chem 1a,b — General Chemistry .....	10
Chem 12a — Organic Chemistry .....	5
*Chem 5 — Quantitative Analysis (recommended) .....	4
Phys 2a/b — General Physics .....	8
Biol 1 — Principles of Biology .....	4
or	
Biol 3 — Human Biology .....	4
Bot 1 — General Botany .....	5
Zool 1 — General Zoology .....	5
*Foreign Language .....	0-12

\* The student should consult the catalog of the intended transfer institution concerning the necessity of appropriateness of these courses.

## BUSINESS ADMINISTRATION

### Recommended Transfer Program

*Recommended High School Preparation: Elementary Algebra, Plane Geometry, Natural or Physical Science.*

The lower division requirements for Business Administration majors transferring to state colleges are Business Administration 1a-1b, Economics 1a-1b, Business Administration 18a.

Students planning to transfer to California State University at San Jose should complete Math 19 or 20, Math 13, and Statistics 2. Students transferring to other State universities should complete Math 19 or 20 and Statistics 2. Math 23a/b is also recommended.

Business 51, Business Mathematics, is recommended for students who are weak in basic math.

Students planning to transfer to the University of California should consult their catalog and the bulletin for the School of Business Administration.

### Recommended Transfer Program

	Units
Baud 1a/b — Financial, Managerial Acc't .....	10
Baud 18a — Commercial Law .....	3
Econ 1a/b — Introduction to Economics .....	6
Math 13 — Elem. Finite Math .....	3
Math 19 or 20 — Intermediate Math .....	5-3
Stat 2 — Introductory Statistics .....	4
Psyc 1a — General Psychology .....	3
Math 23a/b — Applied Calculus .....	10

## Chemistry

### Recommended Transfer Program

	Units
Math 30, 31, 32 — Calculus .....	15
Math 34 — Differential Equations .....	3
Phys 4a/b/c — General Physics .....	12
Chem 1a/b — General Chemistry .....	10
Chem 5 — Quantitative Analysis .....	5
Chem 12a — Organic Chemistry .....	5
Foreign Language .....	0-12

## COMPUTER SCIENCE

### Recommended Transfer Program

	Units
Math 18/25 — Computer-Basic Fortran .....	6
Math 30, 31, 32 — Calculus .....	15
Math 33 — Linear Algebra & Differential Equations .....	5
Math 13 — Elementary Finite Math (recommended) .....	3
Bus 92a — Elementary Typing .....	3

Recommended background in either Economics, Business, Life Science or Physical Science.

## DENTAL HYGIENE

### Recommended Transfer Program

High School Preparation: Chemistry, Mathematics through Trigonometry.

	Units
Chem. 1a — General .....	5
Chem. 12a—Elem. Organic.....	5
Biology 1 — Princip .....	5
Zoology 1 — General .....	4
Psych. 1a/b or 33 .....	6
Foreign Language .....	0-12

## PRE-DENTISTRY

### Recommended Transfer Program

High School Preparation: Chemistry, Mathematics through Trigonometry.

	Units
Chem. 1a/b — General .....	10
Chem. 5 (recommended) — Quantitative Analysis .....	4
Chem. 12a (recommended) Organic .....	5
Physics 2a/b — General .....	8
Biology 1 — Principles .....	4
or	
Biology 3 — Human Biology .....	4
Zoology 1 — General .....	5
Psych. 1a/b or 33 .....	6
Foreign Language .....	0-12
Math 23a/b — Applied Calculus .....	10

## DRAMA

The student who intends to transfer a major in Drama should plan his or her course at Canada College to meet the general requirements for junior standing, as well as the lower-division departmental requirements of the college, university, or drama school of his or her choice. The program outlined below is typical of requirements for transfer with junior standing to a state college.

### Recommended Transfer Program

	Units
Drama 10 — Introduction to Theatre .....	3
Drama 13a — Stage Production .....	3
Drama 14a/14b — Acting, Practice and Theory .....	6
Drama L14a/L14b — Acting Lab .....	4
Drama 1a/1b — Masterpieces of Drama .....	6
Drama 14c/14d — Advanced Acting .....	6
Drama L14c/L14d — Acting Lab .....	4
Drama 15 — Play Production .....	½-2
Drama 16 — Production Shop .....	½-2
Drama 17 — Costume-Fashion Design and Prep. Make-up .....	½-2
Engl/Drama 24 — Modern Drama .....	3

## Suggested Electives

	Units
Drama 13b, 13c, 13d — Stage Production .....	3-3-3
Drama 15 — Play Production (Repeatable for credit) ..	½-2
Drama 16 — Production Shop (Repeatable for credit) ..	½-2
Drama 17 — Costume-Fashion Design and Prep. Make-up (Repeatable for credit) .....	½-2
Drama 20 — Intro. to Direction (Repeatable for credit) ..	3
Drama 24 — Modern Drama .....	3
Drama 25 — Intro. to Shakespeare .....	3
Drama 49 — Individual Projects .....	1-2

## Other Electives

Art 1a, 1b — History of Art .....	3-3
Art 2a, 2b — Form and Composition .....	3-3
Art 4 — Perspectives .....	3
Music 6 — Music Appreciation and Survey .....	3
Phys. Ed. 42a — Elementary Folk Dance .....	1
Phys. Ed. 50a — Elementary Modern Dance .....	1
Speech Comm. 1a — Fundamentals .....	3
Speech Comm. 30a — Oral Interp. of Literature .....	3

## ECONOMICS

### Recommended Transfer Program

	Units
Econ 1a/b — Principles of Economics .....	6
Buad 1a/b — Financial, Managerial Acc't .....	10
Math 13 — Elementary Finite Math .....	3
Math 23a/b — Applied Calculus .....	10
Econ 11 — Economic History of the U.S. ....	3

## ELECTRONICS

### Recommended Transfer Program

	Units
Electronics 10 — Introduction .....	3
Engin. 10 — Engineering and Environment .....	2
Engin. 38 — Circuits & Devices .....	3
Math. 30, 31, 32 — Calculus .....	15
Math. 25 — Computers-Fortran .....	3
Physics 4a/b/c — General .....	12
Chem. 1a/b — General .....	10
Bus. 10 — Introduction .....	3

## ENGINEERING

The Engineering programs detailed below have been designed to prepare a student to transfer to the Engineering Department of many four-year colleges and universities at the end of the sophomore year. It is very important that the student refer to the catalog of the transfer college of his or her choice and work through the Mathematical/Engineering Division Counselor.



The following core subjects were approved unanimously by representatives of all the California State Colleges and Universities and all branches of the University of California at the fall meeting of the Engineering Liaison (ELC) Committee in November, 1970.

	Units
Mathematics (beginning with Analytic Geometry and Calculus and completing a course in Ordinary Differential Equations) .....	16
Chemistry (for engineers and scientists) .....	8
Physics (for engineers and scientists) .....	12
Statics .....	3
Graphics and Descriptive Geometry .....	3
Computers (digital) .....	2
Orientation and Motivation .....	1
Properties of Materials .....	3
Electrical Circuits and Devices .....	3
Electives .....	11-15

The Engineering Liaison Committee (ELC) strongly recommends that any transfer student from a community college complete all his Mathematics, Physics and Chemistry before going on to the four-year institution.

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

## ENGINEERING (Civil, Mechanical, Chemical, Electrical, Environmental, Materials, and Other Principal Branches)

### (Recommended Transfer Program)

	Units
Math. 30, 31, 32 — Calculus .....	15
Math. 34 — Differential Equations .....	3
Physics 4a/b/c — General .....	12
Chem. 1a/b — General .....	10
Engin. 10 — Engineering and Environment .....	2
Engin. 20 — Descriptive Geometry .....	2
Engin. 22 — Graphics .....	2
Engin. 35 — Vector Statics .....	3
Engin. 36 — Vector Dynamics .....	3
Engin. 37 — Strength of Materials .....	3
Engin. 38 — Circuits & Devices .....	3
Math. 25 — Computers-Fortran .....	3
Engineering (Technical Program)	

## ENGINEERING (Technical Program)

### Recommended Transfer Program

	Units
Engg 10 — Engineering & Environment .....	2
Math 23a/b — Applied Calculus .....	10
Chem 30a/b — Introduction to Chemistry .....	8
Phys 2a/b — General Physics .....	8
Math 18 — Computers (basic) .....	3
Math 25 — Computers (Fortran) .....	3

For other Engineering programs available, see the math/engineering counselor.

Please note that other engineering courses are available to adapt the above programs to your needs. Example: Evening College; courses related to non-destructive testing and drafting.

## ENGLISH

### Recommended Transfer Program

	Units
Engl 1a — Reading and Composition .....	3
Engl 1b — Introduction to Literature .....	3
Engl 42a/b — Classical & European Literature .....	6
Engl 46a/b — English Literature .....	6
Engl 9 — Creative Writing .....	3
Hist 4a/b — Western Civilization .....	6
Phil 6 — Introduction to Philosophy .....	3
Foreign Language .....	0-10

## ENVIRONMENTAL SCIENCE (CONCENTRATION NATURAL SCIENCE)

### Recommended Transfer Program

	Units
Chem 1a/b — General Chemistry .....	10
Biol 1 — Principles of Biology .....	4
or	
Biol 3 — Human Biology .....	4
Bot 1 — General Botany .....	4
Phys 2a/b — General Physics .....	8
Anth 2 — Cultural Anthropology .....	3
Econ 1b — Introduction to Economics .....	3

## ETHNIC STUDIES

Courses in the interdisciplinary Ethnic Studies major currently being offered are as follows:

	Units
Anth 34 — California Indians .....	3

Anth 36 — Indians of North America .....	3
Anth 37 — Pre-Columbian Peoples of Mexico .....	3
Art 30 — Development of Mex. & Chicano Art .....	3
Engl 41 — Black Poetry .....	3
Engl 43 — Black Literature .....	3
Engl 44a/b — Mexican-American Literature .....	6
Hist 8b — History of Americas .....	3
Hist 9a/b — Asian Civilization & Heritage .....	6
Hist 32 — Spanish Speaking Peoples in the U.S. ....	3
Hist 33 — Afro-American in U.S. History .....	3
Plsc 13 — Minority Group Politics in the U.S. ....	3
Psyc 7 — The Psyc. Experience of La Raza in the U.S. ....	3
SSci 32 — Contemporary Mexican-American Social Movement .....	3
SSci 33 — Afro-American Culture .....	3
SSci 34 — Mexican-American Culture .....	3
Soc 3 — Minorities in American Society .....	3
Spcm 12 — Black American Speech .....	3

## FISHERIES

### Recommended Transfer Program

High School Preparation: Chemistry, Mathematics through Trigonometry.

	Units
Biol 1 — Principles of Biology .....	4
Bot 1 — General Botany .....	5
Zool 1 — General Zoology .....	5
Chem 1a/b — General Chemistry .....	10
Phys 2a/b — General Physics .....	8
Math 23a or 30 — Applied Calculus .....	5
Cons 1 — Essentials of Conservation .....	3
Stat 2 — Introductory Statistics .....	3

## FORESTRY

### Recommended Transfer Program

High School Preparation: Chemistry, Mathematics through Trigonometry.

	Units
Biol 1 — General Biology .....	4
Bot 1 — General Botany .....	5
Chem 1a — General Chemistry .....	5
Math 23a or 30 — Applied Calculus .....	5
Phys 2a — General Physics .....	4

## GEOGRAPHY

### Recommended Transfer Program

	Units
Geog 1a/b — Physical, Cultural Geography .....	6
Geog 3 — Geography of California .....	3
Geog 4 — Urban Economic Geography .....	3
Anth 1 — Physical Anthropology .....	3

Anth 2 — Cultural Anthropology .....	3
Econ 1a/b — Introduction to Economics .....	6
Geol 1a — General Geology .....	4
Geol 1b — Historical Geology .....	4
Hist 17a/b — U.S. History .....	6
Soc 1 — Introduction to Sociology .....	3

## GEOLOGY

### Recommended Transfer Program

	Units
Math. 30, 31 — Calculus .....	10
Stat. 1 — Research .....	4
Physics 2a/b — General .....	8
Geology 1a — General .....	4
Geology 1b — Historical .....	4
or	
Geology 15 — Environmental .....	3
Chem. 1a/b — General .....	10
Engin. 1a — Surveying .....	3

Math 30, 31, 32 and Physics 4a, b, c sequence in place of Physics 2a/b are recommended for those contemplating graduate work or those who plan to major in geophysics.

## HISTORY

### Recommended Transfer Program

	Units
Hist 4a/b — Western Civilization .....	6
Hist 8a/b — History of Americas .....	6
Hist 17a/b — U.S. History .....	6
Plsc 1 — Introduction to Political Science .....	3

### Supporting Courses

Anth 1 — Physical Anthropology .....	3
or	
Anth 2 — Cultural Anthropology .....	3
Geog 1a — Physical Geography .....	3
Econ 1a — Introduction to Economics .....	3
Soc 1 — Introduction to Sociology .....	3

## 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.

### Recommended Transfer Program (General)

	Units
H.Ec. 4 — Creative Food Preparation .....	3
H.Ec. 5 — Careers in Home Economics .....	1
H.Ec. 6 — Consumer in the Marketplace .....	3

H.Ec. 7 — Home Management .....	2
H.Ec. 9 — Nutrition .....	3
H.Ec. 20a — Beginning Sewing .....	2
and	
H.Ec. 20b — Sew to Fit .....	2
or	
H.Ec. 21a — Creative Sewing .....	3
and/or	
H.Ec. 21b — Custom Sewing .....	3
H.Ec. 35 — Parent Education .....	3
H.Ec. 36 — Life Cycle: Families in Crisis .....	3
H.Ec. 39a — TV/Communications .....	3
H.Ec. 40 — Your Home .....	3

#### *Transfer with Major in Clothing and Textiles*

H.Ec. 21a — Creative Sewing .....	3
H.Ec. 21b — Custom Sewing .....	3
H.Ec. 22 — Textiles .....	2-3
H.Ec. 24 — Fashion Analysis & Apparel Selection .....	2
H.Ec. 60 — Textile Arts .....	2
or	
H.Ec. 61 — Stitchery and Quilt-making .....	2

## INTERIOR DESIGN

### Recommended Transfer Program

	Units
Intd. 1 — Your Home and Environment .....	3
Intd. 2 — Space Planning .....	3
Intd. 3 — Color for Interiors .....	3
Intd. 4 — Practicum .....	3
Intd 5a — Display Design .....	3
Intd 6 — History of Interiors .....	3
**Intd 49 — Independent Study (Portfolio Project) .....	1-2
Art 1c — History of Art .....	3
Art 5a/5b — Design .....	6
Art 4 — Perspectives .....	2
or	
Art 12a — Lettering .....	2
Bus 110 — Salesmanship .....	2
or	
Bus 116 — Retail Merchandising .....	2
or	
Bus 117 — Modern Retail Operations .....	2
Intd 47 — Cooperative Education .....	1-2
or	
H. Ec. 22 — Textiles .....	2-3

### Suggested Electives

Art 2a — Form and Composition (3)
Art 73a — Photography (3)
Bus 10 — Introduction to Business (3)
Bus 56 — Business Communications (3)
Bus 124 — Marketing (3)

\*\* Portfolio projects by arrangement with instructor, limited enrollment (11 max.)

## INDUSTRIAL ARTS

### Recommended Transfer Program

	Units
Math. 29 — Mathematics Analysis .....	5
Chem. 30a — Introduction to Inorganic .....	4
Physics 2a — General .....	4
Engin. 20 — Descriptive Geometry .....	2

The following may be required depending on transfer school:

Physics 2b — General .....	4
Chem. 30b — Introduction to Organic .....	4

## JOURNALISM

### Recommended Transfer Program

	Units
Jour 1 — Introduction to Journalism .....	3
Jour 2 — Newswriting .....	3
Engl 1a — Reading & Composition .....	3
Engl 1b — Introduction to Literature .....	3
Plsc 1 — Introduction to Political Science .....	3
Psyc 1a — General Psychology .....	3
Soc 1 — Introduction to Sociology .....	3
Spcm 1a — Fundamentals of Speech .....	3

## PRE-LAW

### Recommended Transfer Program

There is no prescribed pre-legal curriculum. Students are generally admitted to law schools after they have received their B.A. degrees and passed the Law School Admission Test. Most pre-legal students major in economics, business administration, political science or liberal arts. Courses in English, speech, psychology, philosophy, accounting, mathematics, economics, history and political science form a basic recommended core.

	Units
Buad 1a/b — Financial, Managerial Accounting .....	10
Buad 18a — Commercial Law .....	3
Econ 1a/b — Principles of Economics .....	6
Engl 1a — Reading & Composition .....	3
Engl 1b — Introduction to Literature .....	3
Phil 6 — Introduction to Philosophy .....	3
Psyc 1a — General Psychology .....	3
Soc 1 — Introduction to Sociology .....	3
Spcm 1a — Fundamentals of Speech .....	3
*Math 23a/b — Applied Calculus .....	10
*Psio — Introduction to Physiology .....	5
*Chem 1a — General Chemistry .....	5

\*For concentration in Criminal Law.

## MATHEMATICS

Canada College offers a wide variety of courses for students who wish to major in Mathematics, enabling them to transfer to a university or four-year college at the end of the sophomore year. Students should consult the catalogs of the colleges of their choice for special requirements.

### Recommended Transfer Program

	Units
Math. 30, 31, 32 — Calculus .....	15
Math. 34 — Differential Equations .....	3
Math. 25 — Computers-Fortran .....	3
*Physics 2a/b — General .....	4
*Foreign Language .....	0-12

\* The student should consult the catalog of the intended transfer institution concerning the necessity or appropriateness of these courses.

## MEDICAL SCIENCES

### Recommended 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 or her choice for special requirements.

Major Requirements .....

May include:

- Biology 1 or 3
- Chemistry 1a/1b, 5, 8, 9
- Physics 2a/2b or
- Physics 4a/4b/4c
- Zoology 1
- Psychology 33, Anthropology, Anatomy
- Microbiology, Physiology, Sociology,
- Analytical Geometry and Calculus.

## PRE-MEDICINE

### Recommended Transfer Program

*High School Preparation: Chemistry, Mathematics — Four years of college preparatory Math, Physics.*

	Units
Chem. 1a/1b — General .....	10
Chem. 6 — Quantitative Analysis .....	5
Chem. 12a — Organic .....	5
Biology 1 — Principles .....	4
Zoology 1 — General .....	5
Physics 2a, 2b — General .....	8
*Foreign Language .....	0-8
*Math. 23a/b — Applied Calculus .....	10

\* Students are advised that college math through calculus is mandatory for those seeking a career in medical research and desirable for all medical students. Since medical school requirements vary widely, the student should consult the appropriate medical school bulletins.

## MUSIC

The student who intends to transfer a major in Music or Music Education should plan his or her course at Canada 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 or she intends to transfer. The program outlined below is typical of requirements for transfer with junior standing to a state college.

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

### Recommended Transfer Program

	Units
Music 1 — Musicianship .....	2
Music 2a — Advanced Musicianship .....	2
Music 4a/4b — Harmony .....	6
Music 6 — Appreciation and Survey .....	3
Applied Music .....	4
11 — Piano*	
24 — Brasses	
25 — Woodwinds	
26 — Strings	
36 — Voice	
Performance Groups .....	8
Music 22 — Orchestra	
Music 23 — Band	
Music 33 — A Cappella Choir	
Music 34 — College Chorale	
Music 41 — Recitals .....	2
Music 2b — Advanced Musicianship .....	2
Music 5a/5b — Advanced Harmony .....	6

### Suggested Electives

Guid. 1, 3 or 4 Guidance (1-1-1)	
Music courses not listed above	
Art 10 .....	
Physics 9 — Sound and Music (lab) .....	

\* Music 11 is strongly recommended for all music majors for 4 semesters, in addition to their applied music.

## NATURAL RESOURCES

### Recommended Transfer Program

	Units
Biology 1 — Principles .....	4
Botany 1 — General .....	5
Zoology 1 — General .....	5
Chem. 1a/1b — General .....	10
Math. 19 or 20 — Intermediate Algebra or (Math 23a or 30 — Calculus (recommended)) .....	5
Geol. 1a — General .....	4
Cons. 1 — Essentials .....	3
Stat. 2 — Introductory .....	4
Art 2a — Form and Comp. ....	3

## NURSING

### Recommended Transfer Program

High School Preparation: Chemistry, Intermediate Algebra.

	Units
*Chem. 30a/b — Intro .....	8
Anatomy 1 — Intro .....	4
Physiology 1 — Intro .....	5
*Microbiology 1 — General .....	5
Biology 9 — Nutrition .....	3
Sociology 1 — Introduction or	
Anthro. 2 — Cultural .....	3
Psych. 1a, 5, 33 .....	9

\* Consult appropriate catalog for specific requirements. University of California requires Chem. 1a, 1b and does not require Microbiology.

## OCEANOGRAPHY

### Recommended Transfer Program

High School Preparation: Chemistry, Physics, four years of college prep math.

	Units
Math. 30, 31, 32 — Calculus .....	15
Chem. 1a, 1b — General .....	10
Physics 4a, b, c — General .....	12
Biology 1 — Principles .....	4
Geol. 1a — General .....	4
Zool. 1 — General .....	5
Bot. 1 — General .....	5
Stat. 2 — Introductory .....	4

## OCCUPATIONAL THERAPY

See "Medical Sciences."

## OPTOMETRY

### Recommended Transfer Program

High School Preparation: Chemistry, Physics, Foreign Language, four years of college preparatory math.

	Units
Math 23a/b — Calculus .....	10
Chem. 1a & 1b — General .....	10
Physics 2a/b — General .....	8
Biology 1 — Principles .....	4
Zoology 1 — General .....	5
Stat. 1 — Research .....	4
Psych. 1a — General .....	3
Foreign Language .....	0-12

## Paleontology/Parasitology

See "Medical Sciences."

## PHARMACY

### Recommended Transfer Program

High School Preparation: Physics, Chemistry, four years of college preparatory math.

	Units
Math 23a/b — Applied Calculus .....	10
Chem. 1a/b — General .....	10
Chem. 5 — Quantitative Analysis .....	4
Physics 2a/b — General .....	8
Biology 1 — Principles .....	4
Zoology 1 — General .....	5
Foreign Language .....	0-12

## PHILOSOPHY

### Recommended Transfer Program

	Units
Phil 6 — Introduction to Philosophy .....	3
Phil 7 — Contemporary Philosophy .....	3
Phil 23 — Introduction to Ethics .....	3
Phil 20 — History of Philosophy .....	3
Hist 4a/b — Western Civilization .....	6
Anth 2 — Cultural Anthropology .....	3
Psyc 1a — General Psychology .....	3
Stat 1 — Research Methods .....	3

## PHYSICAL EDUCATION

### Recommended Transfer Program

	Units
1. Complete requirements for general education	40
2. Complete requirements for the major	19-23
Biol 1 — Principles of Biology (4)	
Anat 1 — Anatomy (4)	
Physiology 1 — Introduction (5)	
Physical Education Activities (4-8)	
3. Other requirements: Students should refer to the catalog of the transferring institution for specific requirements for the major. This may include: English 1b, Speech-Comm 1a, Statistics 1, Sociology 1, Chemistry 1a, Anthropology 2, Recreation 40, Psychology 1a and others.	

## PHYSICAL THERAPY

### Recommended Transfer Program

	Units
Biol 1 — Principles of Biology	4
Anat 1 — Anatomy	4
Psio 1 — Introduction	5
Chem 30a/b — Organic Chemistry	8
Phys 2a — General	4

## PHYSICS

### Recommended Transfer Program

High School Preparations: Physics, Chemistry, four years of college preparatory math.

	Units
Math. 30, 31, 32 — Calculus	15
Math. 34 — Differential Equations	3
Math. 25 — Computer/Fortran	3
Chem. 1a/b — General	10
Physics 4a, b, c — General	12

## POLITICAL SCIENCE

### Recommended Transfer Program

	Units
Plsc 1 — Introduction	3
Plsc 2 — Contemporary Foreign Governments	3
Plsc 21 — American Government	3
Plsc 23 — State & Local Government	3
Econ 1a/b — Principles of Economics	6
Hist 17a/b — U.S. History	6
Hist 4a/b — Western Civilization	6

## PSYCHOLOGY

### Recommended Transfer Program

	Units
Psyc 1a — General Psychology	3
Psyc 1b — Experimental Psychology	3
Soc 1 — Introduction to Sociology	3
Anth 2 — Cultural Anthropology	3
Stat 1 — Research Methods	3
*Biol 1 — Principles of Biology	4
or	
*Biol 3 — Human Biology	4
*Psio 1 — Introduction to Physiology	5
*Chem 1a — General Chemistry	5

\* Depending on concentration in major and choice of four-year college.

## RANGE MANAGEMENT

### Recommended Transfer Program

	Units
Biology 1 — Principles	4
Botany 1 — General	5
Zoology 1 — General	5
Chem. 1a/b — General	10
Physics 2a/b — General	8
Math. 19 or 20 — Intermediate Algebra or (Math. 23a or 30 Applied Calculus)	5
Geol. 1a — General	4
Cons. 1 — Essential	3
Stat. 2 — Introductory	4

## RECREATION EDUCATION

### Recommended Transfer Program

	Units
1. Complete requirements for general education	40
2. Complete requirements for the major	15-18
Recreation 40 (2)	
Recreation 41 (3)	
Recreation 42 (2)	
Psychology 1a, 1b (6) or Sociology 1, 2 (6)	
Anthropology 2 (3)	
3. Other requirements: Students should refer to the catalog of the transferring institution for specific requirements for the major. This may include: PE 20, Music 6, Art 10, Environment 2 and 3, and others.	

## RELIGIOUS STUDIES

An interdisciplinary Religions Studies major is currently being offered. Courses now existing under this major are:

History 13 — The Bible as History	(3)
History 14 — Religion in America	(3)

- Philosophy 6 — Introduction to Philosophy (3)  
 Philosophy 23 — Introduction to Ethnicity (3)  
 Philosophy 24 — Introduction to Religion: Religions of the World (3)  
 Philosophy 25 — Western Religious Philosophy (3)  
 Philosophy 35 — Asian Philosophy (3)  
 Sociology 15 — Religion and Society: Toward a Sociology of Religion (3)

## SOCIOLOGY

### Recommended Transfer Program

	Units
Soc 1 — Introduction to Sociology .....	3
Soc 2 — Social Problems .....	3
Soc 3 — Minorities in American Societies .....	3
SSci 10 — Interaction & Communication .....	3
Stat 1 — Research Methods .....	3
Anth 2 — Cultural Anthropology .....	3
Psyc 1a — General Psychology .....	3
Econ 1a/b — Principles of Economics .....	6

## SPEECH-COMMUNICATION

### Recommended Transfer Program

	Units
Spcm 1a/b — Fundamentals of Speech .....	3
Engl 1a/b — Reading/Composition, Literature .....	6
Engl 30 — Major Figures in Amer. Literature .....	3
Dram 1a/b — Masterpieces of Drama .....	3
Psyc 1a — General Psychology .....	3
Anth 2 — Cultural Anthropology .....	3
Soc 1 — Introduction to Sociology .....	3

## TEACHER PREPARATION

If you are interested in teaching, you most likely come under the Ryan Act, a set of new credentialing laws passed by the California State Legislature. Under this Act, there are two basic teaching credentials: multiple subjects (elementary), and single subjects (secondary). If you want your multiple subjects credential, then you should major in Liberal Studies. If you are interested in teaching secondary school and, therefore, need to have a single subject credential, there are a limited number of subjects you should major in (ones commonly taught in high school).

### RYAN ACT CREDENTIALS

The Ryan Act became law in July, 1970, establishing new regulations for credentials for all school personnel. This credential law is now being implemented state-wide, and programs are being developed as rapidly as guidelines become available. Students now entering credential programs must plan their studies in accordance with Ryan Act requirements.

## TEACHING CREDENTIALS

Students wishing to become teachers should apply for admission to teaching credential programs under the Ryan Act through the appropriate educational departments. Upon completion of their baccalaureate degrees, students must go through university admission procedures for retention for the fifth year. Graduating seniors and new graduate transfers should apply for admission as unclassified graduate students with credential only objectives.

### Multiple Subjects Teaching Credential — Ryan Act

1. General Requirements  
Candidates for university-recommended credentials must meet all State requirements and all university requirements over and above State minimums.
2. Specific Program Requirements for Multiple Subjects Credential.  
The multiple subjects credential will authorize the holder to teach the various subjects taught in self-contained classrooms in grades pre-school through twelve and in classes for adults. Self-contained classrooms occur most commonly in California pre-schools and elementary schools.

The Ryan Act required subject matter competence in the following areas:

1. English, including grammar, literature, composition and speech
2. Mathematics and the physical or life sciences
3. Social Sciences
4. Humanities and fine arts, including foreign languages

Candidates must demonstrate their competence in the multiple subject areas by passing the Commission's examination over these subject areas. The examination may be waived upon completion of a Commission-approved "diversified" or "liberal arts" degree program. Such a program must include 84 semester hours, equally distributed among the four areas, with no more than a three-unit variance for any area.

Undergraduate candidates for the Multiple Subjects Credential should enroll in the Liberal Studies Degree program. This program will provide opportunities for students to develop academic programs around central themes or problem areas cutting across the various disciplines. While the program offers experiences in various subject areas, it offers depth through the means of a unifying theme. The Liberal Studies major will also enable the prospective Multiple Subjects Credential student to study those areas in which he/she will be expected to teach.

### Liberal Studies Degree Program

The Liberal Studies degree program must be individually planned by students consulting with as-

signed advisors. The most effective major is a carefully organized program of studies centered around a theme. Courses taken indiscriminately, without advisor approval may not be counted toward the degree major.

The planned program of studies constituting the Liberal Studies major must be developed by the student and the assigned advisor, and be officially approved by the advisor by the time that the student has completed 94 semester units.

### Liberal Studies Degree Major Requirements

Rather than specific required courses for the degree, each program is to be individually planned and approved. For the completed degree 39-45 units are required. The student working toward a Multiple Subjects Credential must complete 18-24 units in each of the four Ryan Act categories. All students must complete a core of 15-18 units in one of the four Ryan Act categories. In addition, thematically related courses of 6-12 units must be completed in each of the other three Ryan Act areas.

### Specific Requirements for the Multiple Subjects Credential

Students wishing to qualify for a waiver of the Commission's approved subject matter examination for the Multiple Subjects Credential, must meet the following course requirements.

#### Area I — English (18-24 units)

##### Required Courses:

- One course in composition and grammar
- One course in speech or oral composition
- One course in literature

##### Electives — Suggested Areas of Experience

- Children's Literature
- Dialects
- Linguistics
- Literature
- Writing Skills (including composition above Freshman level)
- Speech
- English as a Second Language
- Poetry

#### Area II — Mathematics and Physical or Life Science (18-24 units)\*

##### Required Courses:

- \*\*One course in mathematics
- One course in the physical sciences
- One course in the life sciences

##### Electives — Suggested Areas of Experience:

- Theory of Number System
- \*\*Basic Arithmetic Concepts
- Computer Skills

#### Biological Sciences:

- Nature Study
- Nutrition
- Health Science
- Human Reproduction
- Human Physiology
- Ecology
- Biology

#### Physical Sciences:

- Chemistry
- Physics
- Geology
- Astronomy
- Meteorology
- Physical Science

#### Area III — Social Science (18-24 units)\*

##### Required Courses:

- One course in an "era" of history
- One course in the concepts and theories of the social sciences

##### Electives — Suggested Areas of Experience

- Human Relationships
- Child Growth and Development
- Family Relations
- Concepts and Theories of Social Sciences
- Sociological Understandings
- Anthropological Understandings
- Urbanization
- Ethnic Cultures
- Economics
- American Constitution
- U.S. History
- History and Geography of California
- World Geography
- Maps, Charts and Graphs

\*\* Math 16 at Canada College will meet the Mathematics requirement.

#### Area IV — Humanities and Fine Arts, Including Foreign Languages (18-24 units)\*

##### Required Courses:

- One course in art
- One course in music

##### Electives — Suggested Areas of Experience:

- Art and Music for Children
- Ethnic Music, Arts and Crafts
- Design and Industry for Children
- Creative Dramatics for Children
- Foreign Language Skills
- Types of Cultural Expressions
- Other Suggested Areas of Experience (Electives Beyond the 84 units)
- Physical Education for Children
- Basic Movement for Children
- Camping
- Outdoor Education

\* Twenty-one units are expected with no more than a three unit variance.  
TOTAL 84 units



### Single Subject Teaching Credential — Ryan Act

1. General Requirements  
(See your counselor)
2. Subject Matter Requirements

The single subjects teaching credential will authorize the holder to teach specified subject matter courses in grades pre-school through twelve or in classes for adults. Departmentalized classes occur most commonly in California junior and senior high schools.

The following subject matter categories for single subject credentials are acceptable under the credential law:

agriculture	home economics
art	industrial arts
biological sciences	life science
business	mathematics
English	music
foreign languages	physical education
government	physical sciences
history	social sciences

A candidate must demonstrate his/her competence in a single subject area by a passing score on the examination provided by the Commission on Teacher Preparation and Licensing. This examination may be waived upon completion of a Commission-approved program in the specific subject matter area. Programs in the above subject areas have been submitted to the Commission for approval for waiver of the examination.

### PRE-VETERINARY MEDICINE

See "Medical Sciences."

### WILDLIFE MANAGEMENT

#### Recommended Transfer Program

	Units
Biol — Principles of Biology .....	4
Bot 1 — General Botany .....	5
Zool 1 — General Zoology .....	5
Math 19 or 20 — Intermediate Algebra .....	5
or (Math 23a or 30 — Applied Calculus)	
Chem 1a, 1b — General Chemistry .....	10
Cons 1 — Essentials of Conservation .....	3
Stat 2 — Introductory Statistics .....	4

### WOMEN'S STUDIES

These courses seek to increase understanding of the characteristics, concerns, and contributions of women in a society where women's roles are rapidly changing.

#### Courses now existing under this major are:

	Units
Admj 20 — Women in Justice .....	3
Engl 38 — Literature by and About Women .....	3
Hist 28 — Women in U.S. History .....	3
SSci/H. Ec. 37 — Sociology of Women .....	3





# Announcement of Courses

All courses and curricula listed in this catalog will not necessarily be offered during 1976-77. Courses are offered at the discretion of the College in accord with its determinations of educational needs and available resources. Courses may be added, cancelled or combined when circumstances warrant.

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.

The following courses have been approved for all instructional departments:

"47" Courses — COOPERATIVE EDUCATION (1-4)

"48" Courses — SPECIAL TOPICS (1-3)

"49" Courses — INDIVIDUAL PROJECTS (1-2)

"99" Courses — STUDIO OR LABORATORY PROJECTS (1-3 units. Grade Option.)

99 courses must be taken in conjunction with at least one course of like kind in any academic division; the course augments classroom instruction. Many 99 courses are sponsored by and housed in the Media Learning Center, and may be designed as MLC (Media Learning Center) 99 courses.

Evening College courses are described in a supplementary 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.

Because the transfer of credits to other colleges and universities is so important to students, it is important that they carefully check the catalog of the school to which they want to transfer. For transfer to a state university or college see General Education sheet listed in the California State Universities and Colleges section of this catalog. A student planning to transfer to a campus of the University of California should refer to the University of California section of this catalog to insure that his or her courses have been accepted by UC.

## COORDINATED INSTRUCTIONAL SYSTEMS

A Coordinated Instructional System Program, also called Individualized Self-Paced Instruction, is a learning approach emphasizing the student's maturity, initiative and responsibility for his or her own learning. It utilizes various audio, video and audiovisual devices, which may include prepared materials on slides, tapes, printed matter, TV, computer, etc., as well as individual consultations with the instructor. Some regular class meetings may be required. In Coordinated Instructional courses, students determine their own schedule of study, testing dates, level of mastery and need for teacher assistance.

## ADMINISTRATION OF JUSTICE

### **1 Administration of Justice (3).** 3 lecture hours per week.

Orientation to the Administration of Justice program as well as law enforcement as a profession and means of livelihood. Includes history and philosophy of law enforcement on the local, state and national levels. Employment opportunities and general requirements of various law enforcement agencies. Problems facing law enforcement and the over-all crime picture in the United States. Included are aspects of racism in the administration of justice, police and minority groups, police discretionary decision-making and the double standard of justice: why it must go.

### **2 Principles and Procedures of the Justice System (3).** 3 lecture hours per week.

In-depth study of the role and responsibilities of each segment within the administration of justice system: Law enforcement, judicial, corrections. Past, present and future exposure to each subsystem procedure from initial entry to final disposition and the relationship each segment maintains with its system members.

### **3 Concepts of Criminal Law (3).** Also Social Science 3. 3 lecture hours per week.

Reason for criminal laws, their source and function in our society. 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.

### **4 Legal Aspects of Criminal Evidence (3).** 3 lecture hours per week.

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.

### **7a Criminal Investigation (3).** 3 lecture hours per week.

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.

### **7b Advanced Investigation (3).** Prerequisite: Administration of Justice 7a or consent of instructor. 3 lecture hours per week.

Advanced study of criminal investigation; crime scene search; collection, preservation and identification of physical evidence; scientific aids; photography; sources of information; interrogation of victims, witnesses and suspects; cooperation with related agencies; case preparation and follow-up work.

### **12 Traffic Control (3).** Prerequisite: Administration of Justice 1, or concurrent registration in same. 3 lecture hours per week.

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.

### **17 Justice Management (3).** 3 lecture hours per week.

Evolution of theories of organization and administration of justice agencies. Policy formulation, communications, methods of control, planning and research. Chain of command, span of control, unity of command and functional supervision will be presented.

### **18 Alternatives to Incarceration (3).** 3 lecture hours per week.

Legal, philosophical, sociological and psychological aspects of probation and parole with emphasis on the practical application of this knowledge by the practitioner.

### **19 Patrol Procedures and Report Writing (3).** Prerequisite: Administration of Justice 1 or concurrent registration in same. 3 lecture hours per week.

Methods, techniques and responsibilities of the patrol unit. Beat patrol and observation, police hazards and how to handle them. Includes methods of writing police reports, what material is important, what purpose the different reports will fill. Various types of files and their uses.

### **20 Women and Justice: New Directions (3).** 3 lecture hours per week.

This course will examine both traditional and changing roles of men and women in society with an emphasis on the criminal justice system. Special features of the course will be investigations of female adult and juvenile correctional facilities, the selection, training and affirmative action programs for women in police work, and unique female issues such as the woman alone and rape.

**21 Police Report Writing (2).** *Prerequisite: Administration of Justice 3. 2 lecture hours per week.*

History of records and reports pertaining to police. Various types of files and their uses; the value of the file system as used in the Police Department of the state; the method of writing police reports, what material is important; what purpose the different reports will fill.

**30 Introduction to Industrial & Retail Security (3).** *3 lecture hours per week.*

Historical, philosophical and legal bases of security. Role of security and the security individual in modern society; the concept of professionalism in security; a survey of the administrative, personnel and physical aspects of the security field.

**32 Security Administration (3).** *3 lecture hours per week.*

Organization, administration and management of security functions of mercantile establishments; special laws and procedures; policy and decision making; personnel and budgeting; programs in business, industry and government, including retailing, transportation, and public and private institutions; private guard and alarm services.

**35 Current Security Problems (3).** *3 lecture hours per week.*

Analysis of special problem areas such as security education and training, community relations, white-collar crime, drug abuse, theft control, shoplifting, document control, subversion and sabotage, protection of classified information, control of proprietary information and business espionage, labor problems, civil disturbances, and natural and man-made disasters.

**38 Community Relations of Public Agencies (3).** *Also Social Science 38. 3 lecture hours per week.*

Role of public agencies in contemporary society with particular emphasis on minority group relations. Examination of the society and the agencies that perform the police and service functions.

**42 Juvenile Justice: Trends and Treatment (3)** *3 lecture hours per week.*

Explores the variety of systems in the juvenile court system, ranging from maximum security to the professional foster home. Survey of placement considerations and procedures. Emphasis on growth and implications of the treatment modal.

**44 Drugs: Effects on Individuals and Society (3).** *Also Psychology 44. Prerequisite: Psychology 1a. 3 lecture hours per week.*

Introduction to the effects of various categories of drugs. Exploration of the anatomical and physiological basis of drug action. Designed to enable identification of symptoms and side effects of drug use or abuse. Emphasis upon various modes of treatment and rehabilitation.

**45 Police Patrol Canine Management (3)** *(Evening College) Prerequisite: Student must be working with trained patrol dog in a professional capacity. 3 hours per week.*

An in-depth study of the modern day working police canine; understanding, handling, and improving management techniques. In applying theory with actual field situations, the student will attain a greater awareness of the significant role the patrol canine plays as a physical and psychological deterrent to crime, with emphasis on police/public relations.

**46 Introduction to Counseling (3).** *Also Psychology 46. Prerequisite: Permission of instructor. 3 lecture hours per week.*

Introduction to the various theoretical views of counseling and exposure to the general principles of interviewing. Major objectives are to provide an opportunity for development of skills in establishing rapport, setting counseling goals, recognizing strengths in individuals, recognizing self-limitations and methods for making referrals and terminating counseling relationships.

**47a Internship Cooperative Education (2).** *Prerequisites: Administration of Justice 1 or consent of instructor. 6 hours per week - one hour classroom and 5 hours to be arranged.*

## ANATOMY

**1 Anatomy (4).** *Prerequisite: Biology 1 or high school Biology with grade B or better. 3 lecture and one 3-hour lab period per week.*

Structure of the human body as demonstrated through laboratory study and dissection of the human and higher mammals. Intended for students in nursing, physiotherapy, hygiene and physical education. Elective for pre-dental, pre-medical and pre-veterinarian students.

**2a-2b Anatomy for X-Ray Technologists. (4-4).** *Prerequisite for 2a-Concurrent registration in the X-Ray Technology program; prerequisite for 2b-Anatomy 2a. 3 lecture and 3 lab hours per week.*

Survey of the anatomy and physiology of the human organism with emphasis directed toward recognition

of tissue by radiographs. Laboratory aids would include human cadaver, preserved cat and radiographs. Physiological aspects centered through the use of live material.

**51 Body Structure and Function (2).** 2 lecture hours per week.

Normal body structure and function of the following systems: skeletal, muscular, circulatory, digestive, endocrine, respiratory and nervous. The special senses are also covered.

**71 Human Anatomy (3).** Prerequisite: Enrollment in court reporting program. 3 lecture hours per week.

An anatomical and physiological survey of the human body with emphasis on application in the court reporting field.

## ANTHROPOLOGY

**1 Physical Anthropology (3).** 3 lecture hours per week.

Relationship of Homo sapiens to lower animals, evidence of man's evolution, genetics, human racial stocks and man's early prehistory.

**2 Cultural Anthropology (3).** 3 lecture hours per week.

Study of culture as the man-made environment of particular societies; pre-historic, 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 Pre-History (3).** 3 lecture hours per week.

Man's biological and cultural relationships are developed before the written record. Origins of language and society are dealt with in the context of the paleolithic, mesolithic, and neolithic periods. Levels of subsistence from gathering and hunting to the advent of agriculture will be presented on a geographical basis. Europe, Asia, Africa, North, South and Meso America.

**4 Archaeology Fieldwork (3).** 2 lecture and 3 lab hours per week.

Techniques and method of Archaeological excavation and laboratory analysis. Archaeological theory and interpretation of data; Archaeological report preparation. Preservation and care of artifacts.

**6 Africa (3).** 3 lecture hours per week.

An introductory survey of the culture and society of Africa. A general review of history, economic life, social structure, religion and politics will be followed by thorough case studies of two societies: the Yoruba of Nigeria and the Zulu of South Africa.

**34 California Indians (3).** 3 lecture hours per week.

An introduction to the origins and pre-history of the California Indian; archaeology, pre-history, ethnography and history of selected cultures. Emphasis will be on the San Francisco Bay Region with special emphasis upon San Mateo County. Historical and contemporary problems will also be dealt with in terms of European influence on the various California Indian cultures. (This course may be used to fulfill Ethnic Studies requirement.)

**36 Indians of North America (3).** 3 lecture hours per week.

In-depth look at some of the life-ways of distinct North American Indian cultures found in different geographical areas of North America. Stress in 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. (This course may be used to fulfill Ethnic Studies requirement.)

**37 Pre-Columbian Peoples and Cultures of Mexico and Central America (3).** 3 lecture hours per week.

Study of Middle American civilization as it developed through many different peoples including the Olmecs, Zapotecs, Mixtecs, Mayas, Toltecs and Aztecs. Emphasis on the contributions of these peoples and cultures in the development of Middle America. Examination of the impact of the Spanish conquest, emergence of the mestizo, and the cultural influence still present in Middle Americans and Spanish speaking in the United States. One additional unit optional in conjunction with MLC. (This course may be used to fulfill Ethnic Studies requirement.)

## ART

For Art majors, see program outlined in "Suggested Curricula." While intended primarily for regular students taking the semi-professional or pre-major 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).** 3 lecture hours per week.

Survey of prehistoric ancient, classic, early Christian and medieval art.

**1b (x) History of Art (3).** 3 lecture hours per week.

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

**1c (x) History of Art (3).** 3 lecture hours per week.

Survey of architecture, painting and sculpture of the 20th Century. May also be taken as an interdisciplinary course.

**2a (x) Form and Composition (Surfaces I) (3).** Prerequisite: Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

Fundamentals of perceptual (subject matter) and conceptual (idea) composition, emphasizing line, shape, mass, value, space organization and texture. An introductory course for painting and drawing. Approximate cost of materials: \$20.

**2b Form and Composition (Surfaces II) (3).** Prerequisite: Art 2a and concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

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).** 3 lecture hours per week.

Consideration of color theory and practice. Relationship of color and form as applied to contemporary painting and design. Approximate cost of materials: \$25.

**4 Perspectives (2-3).** 2-3 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 Design (3).** Prerequisite: Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

Study of spatial organization through color, line,

shape and mass with emphasis on the conceptual process of composing designs on two-dimensional surfaces. Course is related to practical application of design. Approximate cost of materials: \$25.

**5b Design (Three-Dimensional) (3).** 3 lecture hours per week.

Basic instruction and applied use of three-dimensional design concepts, structuring them in three-dimensions with emphasis on composition.

**6a-6b (x) Painting (3-3).** Prerequisite: None; recommended Art 2a-b. Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

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).** Prerequisite: For 7a - Art 2a; prerequisite for 7b - Art 7a. 3 lecture hours per week.

Exploration and application of water color media, emphasizing the experimental and interpretative. May be repeated for credit. Approximate cost of materials: \$25.

**8 Art and Cultures (3).** Prerequisite: None. Recommended Art 1C. 3 lecture hours per week.

The course will present a living art-sociology. It will be a study of cultural systems of expression and convention in art as they reflect the cause social change. Comparisons will be drawn among universals which appear common to all cultures and how the needs they imply can be used as a method of understanding the more complex relationships of today's society.

**10 (x) Introduction to Art (3).** 3 lecture hours per week.

A lecture course for the general student and Art major in the principles and fundamentals of art and art criticism. Study of terminology and criteria of value. Illustrated with examples of modern and historic drawing, painting, sculpture and design.

**12a Lettering and Layout (2-3).** 2-3 lecture hours per week.

Development of proficiency in freehand lettering with pen and brush. Imaginative interpretations of lettering styles. Approximate cost of materials: \$15.

**12b Lettering and Layout (3).** Prerequisite: Art 12a or permission of instructor; recommended: Art 3 and 5a. 3 lecture hours per week.

Development of lettering and two-dimensional design problems related to the area of ad copy and the graphic promotion of commercial events. Page layout and poster design emphasized. Diverse media used. Approximate cost of materials: \$25.

**13a (x) Drawing I (3).** 3 lecture hours per week. Concurrent enrollment in Art 99. (Studio Hours).

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).** Prerequisite: Art 13a. 3 lecture hours per week.

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.

**14(x) Illustration (3).** 3 lecture hours per week.

A course in the rendering of literal and commercial concepts, providing the student with the basic skills to illustrate or decorate books, articles, advertisements, etc.

**15 Life Drawing (2).** Prerequisites: Art 13a-b. 1 1/2 lecture and 1 1/2 drawing lab hours per week.

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. \$4 model fee.

**17a (x) Printmaking I (3).** Prerequisites: Art 2a, Art 13a or permission of instructor. Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

Introduction to printmaking, involving processes of relief printing (woodcut, linocut, collagraphy) and intaglio. May be repeated for credit. Approximate cost of materials: \$25.

**17b (x) Printmaking II (3).** Prerequisite: Art 17a. Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

The student will choose from the types of printing listed in 17a for concentrated work. May be repeated for credit. Approximate cost of materials: \$25.

**17c (x) Silkscreen Printing (3).** Prerequisites: Art 17b. Concurrent enrollment in Art 99 (Studio Hours). 3 lecture hours per week.

Introduction to stencil process of printing through a silk screen to produce graphic art on paper or fabric.

**18 Commercial Design (3).** Prerequisite: Art 5a, 12a or 12b, or consent of instructor. 3 lecture hours per week.

Development of two- and three-dimensional problems in graphic communication. Principles of design will be utilized and exploited in individual and group assignments ranging from pure decoration to practical application as related to commercial design and packaging.

**20 (x) Ceramics (3-3).** Prerequisite: None. 3 lecture hours per week.

A class designed to give the student interested in ceramics the techniques of working on the potter's wheel, as well as hand building, pinch, coil and slab methods, including work in ceramic sculpture. Course will include techniques of glazing and decorative processes. \$10 lab fee. May be repeated once for credit.

**22a-22b (x) Sculpture (3-3).** Prerequisite for 22a-Art 5a (not in Evening College); prerequisite for 22b-Art 22a. Concurrent enrollment in Art 99 (Studio Hours) for both 22a and 22b. 3 lecture hours per week.

Basic course in figurative and non-objective structural forms using plastic, fiberglass, metal and other media. May be repeated for credit. Approximate cost of materials: \$30.

**24(x) Weaving (3).** 3 lecture hours per week.

Exploration of various techniques and design possibilities of textile arts using hand-made looms. Approximate cost of materials \$15.

**30 Development of Mexican and Chicano Art (3).** 3 lecture hours per week.

A survey course of Chicano Art intended to create awareness of Chicano expression. Origins, history and contemporary movements will be examined as well as criticism of the art itself. (This course fulfills the ethnic studies requirement.)

**44 Fine Arts for Children (3).** Also Music 44. (Evening College) 3 lecture hours per week.

For parents and teacher aids. 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.



**53 Elementary School Art (3)** *Forty-five in-class hours - workshop experiences.*

Designed for teachers, administrators, school aides, parent volunteers from pre-school to grade 8. Course is workshop-oriented, covering painting, printmaking, stitchery, weaving, bakers dough, ceramic clay and many varied mural experiences. Course will include a tour of children's art in public areas and a beach outing involving work with natural materials.

**56 (x) Landscape (3).** *(Evening College) 3 lecture hours per week.*

Development skills, techniques and sensitivity in traditional forms. Acrylics, oil paint, water color and other media are used to encourage individual expression. For the recreational painter. May not be applied toward the degree by the student whose major is art. (May be repeated for credit.)

**57 (x) Portraiture (3).** *Prerequisite: Art 2a or Art 13a. Three lecture hours per week.*

This course is designed to give the student a background in head construction, painting procedures and techniques. Through a series of problems, the student gains in the development of structural and technical skills.

**73a Photography (3).** *Prerequisite: concurrent or previous enrollment in Art 2a. 3 lecture hours per week.*

Basic fundamentals: the beginning of a technique and a concept of photography as an art form. Includes discussion of photography equipment, filters, film, papers. Black and white only. Two hours of lab per week (Art 99b).

**73b Photography (3).** *Prerequisite: Art 73a. 3 hours per week.*

Composition, design, creative presentation. More advanced techniques with camera and darkroom. Two hours of lab per week (Art 99b).

**73c Experimental Photography (3).** *Prerequisite: Art 73b. 3 hours per week.*

Advanced photographic techniques building toward a professional portfolio. Two hours of lab per week. (Art 99b).

**74 Survey of Photography (3).** *3 lecture hours per week.*

Through viewing slides and taking trips to local galleries and museums, a survey of photography from its conception to the present day will be taken. As a learning tool, master photographs will be analyzed for

their excellence in technique and composition. Some discussion of students' photographic work and equipment may be included.

**99a Studio Hours (0).**

Supervised studio hours in connection with Art 2a, 2b, 5a, 5b, 6a, 6b, 17a, 17b, 22a, 22b. Hours by arrangement.

**99b Photography Lab Hours (0).** *2 hours per week.*

Supervised lab hours in connection with Art 73a, b, c.

## ASTRONOMY

**10 Introduction to Astronomy (3).** *3 lecture hours per week.*

Survey of modern astronomy, including the study of the planets, stars and galaxies. Emphasis on the place of man in the universe and the possibilities of life on other worlds. Quasars, pulsars, black holes, the space program, and the beginning and end of the universe will also be discussed. Accepted for general education at most colleges and universities.

**12 Theories of the Universe (3).** *3 lecture hours per week.*

An introduction to astronomy, in the form of a historical survey of man's thinking about the large-scale questions concerning the universe, ranging from ancient myth to modern theories of an exploding universe. Will focus particularly on three questions: the creation of the cosmos, the meaning of time and the end of the universe. The continual interaction of science with literature, philosophy, etc., will be explored through readings, slides, films. Course especially designed for those with an interest but no background in science. Accepted for general education at most colleges and universities.

**17 Planets and Life (3).** *Prerequisite: Astronomy 10 or equivalent, or permission of the instructor. 3 lecture hours per week.*

Study of the solar system with a view toward discovering the conditions necessary for life to form and assessing the chances that life has formed elsewhere in the universe. Various means for detecting extra-terrestrial life will be discussed. Extensive use will be made of the results from U.S. and Soviet space programs.

## AUDIO-VISUAL

**1 Audio-Visual Laboratory (1-2)** Prerequisite: None. One lecture and three lab hours per week.

Techniques of AV equipment set-up, operation and care (16MM projector, slide and filmstrip equipment, tape recorders, video equipment, etc.) Some production of software plus orientation to AV Control Room, Reading Lab, Language Lab, and Learning Labs.

## BACTERIOLOGY (See Microbiology)

## BIOLOGY

**1 Principles of Biology (4)**. 3 lecture and one 3-hour lab period per week.

Biological principles including cellular organization, heredity, molecular components, evolution, reproduction, differentiation, and ecology.

**2 Genetics (3)**. Prerequisite: One course in the Biological Sciences or consent of instructor. 3 lecture hours per week.

Introduction to the principles of heredity in plants and animals with specific reference to human inheritance and bio-chemical genetics, evolutionary heredity and genetic engineering.

**3 Human Biology (4)**. 3 lecture and one 3-hour lab per week.

Study of biological principles utilizing the human body as a model. Emphasis on study of the major body systems of the human as well as topics of heredity, human development and human ecology.

**9 Nutrition (3)**. Also Home Economics 9. 3 lecture hours per week.

Basic knowledge and fundamental concepts as a basis to evaluate current nutritional trends, fads, and diets; metabolic interrelationships; hunger and malnutrition vitamins and minerals; obesity; popular weight reduction diets; food processing and getting the most nutrition for your food dollar.

**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 Biological Sciences. Complementary to Physical Science 10. 3 lecture hours per week.

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.

**18 Nutrition in Health and Disease (3)**. Also Home Economics 18. Prerequisite: Biology 9 or Home Economics 9. 3 lecture hours per week.

Nutritional aspects and metabolic biochemical relationships of special medical problems including mental illness, alcoholic malnutrition, dental disease, diabetes and heart disease.

**39 Human Sexuality: Biological Aspects (1 1/2)**. 3 hours per week for 8 weeks.

Lecture-discussion of the physical aspects of sexuality. Topics include: anatomy and physiology of the male and female, "The Pill" and other methods of contraception, pregnancy and fetal development, and the biological aspects of sexual development and behavior. It is strongly recommended that this class be taken concurrently with Psych. 39.

**40 Nature Study (3)**. 2 lecture and one 3-hour lab/field trip per week.

Lecture, laboratory and field study of common plants and animals of the Bay Area. Emphasis on plant identification of common organisms and study of their natural history and distribution in this area.

## BOTANY

**1 General Botany (5)**. Prerequisite: Biology 1 with a grade of C or better, or high school Biology with a grade of B or better. 3 lecture hours and 6 hours of lab per week.

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

**4 Native Plants and Wild Flowers (3)**. 2 lecture and 3 lab hours per week.

Study of the native ferns, trees, shrubs and wild flowers of San Mateo County. Mainly field work, designed to allow the student to acquire skills in collection and identification of the flora of any region.

**8 Indoor Gardening (1)**. 2 lecture hours per week for eight weeks.

How to grow potted plants in the home, deck or patio. This course will give practical information on how to start potted plants and care for them, as well as on their use in and around the home.

**10 Plants and Man (3-4).** 3 lecture and one optional 3 hour lab per week.

Introduction to plant science including cells, plant groups propagation, distribution, succession structure and function.

## BUSINESS

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

**Major requirements:** 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 10—Introduction to Business.

**10 Introduction to Business (3).** *Credit/no credit.* (Required of all students majoring in two-year Business programs). 3 hours per week.

Introductory survey of the nature, organization, and structure of the American private-enterprise system. Designed to allow student examination and comparison of many activities performed in the business community. Instruction includes lectures, discussions, guest speakers and field trips. Several written reports assigned. An aid to selecting a field of vocational specialization.

**11 Contemporary Business Economic Issues (3).** 3 hours per week.

Introduction to contemporary American economy from the points of view of both the businessman and consumer. Sixteen different, often related current issues economically and politically affecting business and society will be given balanced presentations through lectures, films, readings and guest speakers.

**12 Introduction to Data Processing (3).** 3 lectures hours per week.

Introduction to data processing with emphasis on use of the digital computer. Flow charting and programming using BASIC are introduced. Students are required to run several programs. File maintenance and

manipulation is explored. Students retrieve and use stored programs from files.

**15 Business Computer Programming (3).** *Prerequisite: Business 12 or Business 61 or Mathematics 18.* 3 lecture hours per week - some lab necessary.

Introduction to computer languages used in business programming. Emphasis on COBOL, including a variety of programs using the language. The basic fundamentals of RPG and PL/1 will be covered.

**35 Personal Money Management (3).** 3 hours per week.

Develops understanding and skill in dealing with personal finance problems. Topics include financial planning, consumer purchasing, borrowing money, savings methods, insurance, estate planning, investments, real estate taxes. Provides a project for comparative investment of a periodic summary.

**36 Consumer Credit Management (3).** (*Evening College*). 3 hours per week.

Economic and social concepts of Credit Management and analysis of consumer credit from viewpoint of the creditor. Investigation of retail and cash loan credit; government regulation; collection policies and practices. Current happenings in the industry presented through appearance of guest speakers and field trips.

**37 Commercial Credit Management (3).** (*Evening College*). 3 hours per week.

Study of types of loans extended to companies. Analysis of credit application, financial statement, and all credit information gathered about the company; and of credit decision making. Study of the credit reporting agencies. Course will feature guest speakers and field trips.

**38 Credit Investigation and Financial Analysis (3).** (*Evening College*). *Prerequisites: Business 36 or 37 or current employment in credit profession.* 3 lecture hours per week.

Consumer Credit and Commercial Credit Management are integrated into a study of our credit economy. Emphasis will be placed on credit investigation and the involved analysis necessary to the credit decision making process in both consumer and commercial transactions.

**40 Principles of Bank Operations (3).** (*Evening College*) 3 hours per week.

Description of the fundamentals of bank functions. A study of bookkeeping operations involving the day-to-day banking activities; various bank services such as loans, savings, trusts, legal considerations; the Federal Reserve System and related government controls.

**43 Political and Economic Power: The Questions of the Older Person (3).** *also Political Science 43. 3 lecture hours per week.*

The course explores the political attitudes and voting behavior of older Americans; their past, present, and future involvement in interest-group politics; the laws and government agencies, national, state, and local, that are responding to the needs of the aging; the legal rights of older people including specific attention to age-based discrimination in employment; the financial aspects of aging, including financial planning before and during retirement, the Social Security system, private pension plans, savings, annuities, and investments; and estate transfer. Present trends and prospective future changes will be stressed. Attention will be directed to California and San Mateo County programs and developments wherever possible.

**47 Cooperative Education (1-4) Credit/no credit.** *Prerequisites: Completion of or enrollment in Business 10, or concurrent enrollment in another Business course, or approval of instructor; and employment in business 5-20 hours per week. Activities include supervised work experience, group discussion based on individual and group job problems and selected field trips. 6 class sessions (including field trips). First meeting during second week of semester.*

**50 Business Arithmetic (3).** *Prerequisite: For students with a percentile below 35 on the quantitative part of SCAT entrance examination. 3 hours per week. (SCAT test is given during second class session.)*

Objectives are to: (1) improve arithmetic skills in basic addition, subtraction, multiplication and division, as well as teach some helpful shortcuts and aliquot parts, (2) brush up on common and decimal fractions, and (3) apply these skills to bank statements, cash and trade discounts, income tax and other business problems.

**51 Business Mathematics (3).** *Prerequisite: Percentile rating of 35 or over on the quantitative part of the SCAT test, or completion of Business 50 with a grade of C or better. Placement in Business 50 or 51 is on the basis of the score on inventory test given during the first or second class session. 3 hours per week.*

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.

**55a Law for Laymen (3).** *(Evening College) Fall semester. 3 hours per week.*

A practical course for the layman designed to help him understand how the courts operate and important

aspects of contracts torts, real property, wills, estates, and criminal law and procedures.

**55b Law for Laymen (3).** *(Evening College) Spring semester. 3 hours per week.*

A practical course for the layman designed to help him understand the important aspects of Constitutional Law, family law, tax, corporations, partnerships, trusts, conservatorships, and guardianships, equity, bankruptcy, and court procedures.

**56 Business Communications (3).** *Prerequisites: Business 92a and completion of or enrollment in Business English or completion of English 50a-50b. (Students must either type or have their work typed for them.) 3 hours per week.*

The ability to create (not just type) letters is needed in order to advance in most fields. This course zeroes in on composing clear and concise letters and reports. How to achieve readability, build interest and use persuasive techniques are demonstrated and practiced. Techniques for achieving ease in speaking before groups are developed. Dictating techniques as used by executives and court reporters are demonstrated and practiced by students. Recommend for all Business majors.

**58 Human Relations in Business (3).** *3 hours per week.*

Films, tapes by experts on the subjects and lectures are used to present the basic psychological principles operating in family, social and business relationships. Conference method class discussions, and oral and written reports prepared in acceptable business format offer an opportunity for individual self-improvement. Topics covered include: perception, self-image, self-management, success, prejudice, creativity, attitudes, change, motivation and maturity, productivity, leadership and many others. Recommended for all Business majors.

**61 Basic Computer Operations (3).** *3 lecture and 3 lab hours per week.*

Designed to explore the mechanics of the hardware in a system 360/370 environment. Field trips plus a long-term field experience give the students actual operating experience. (Minimum homework assignments).

**64 Business Law (3).** *Fall semester. 3 hours per week.*

Broad study of the legal aspects of business transactions: the legal system; contracts, sales, agency negotiable instruments and personal property. Provides a background for personal as well as business transactions. Lecture and case problems used extensively. Recommended as general education elective.

**65 Small Business Management (3).** (Evening College) Spring semester. Prerequisite: Business 10 or permission of the instructor. 3 hours per week.

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 are explored, type of operation, legal form, site location, financing, handling of personnel and over-all management procedures.

**66 General Accounting (3).** Recommended: Completion of or concurrent enrollment in Business 50 or 51. 4 hours per week.

Non-professional accounting course introducing the principles of double-entry bookkeeping. These principles are applied to recording financial transactions and the preparation of statements and reports used in a small single-owner business. A practice set is required.

**67 Federal Income Tax Procedures (0).** (Evening College) Spring semester-6 weeks. 3 hours per week.

Study of the federal income tax structure as related to individuals, including problems intended to provide an understanding of the law and regulations.

**68 Business Taxes (1).** (Evening College) Prerequisite: Business 66 or Business Administration 1a. 3 lecture hours per week.

State and federal laws and regulations governing payroll accounting and reporting; California sales tax regulations and reporting; real and personal property declarations as a basis for county assessor's valuation for city and county property taxes.

**81 Security Investments (3).** (Evening College) Prerequisite: Consent of instructor. 3 hours per week.

Designed to assist individuals in starting investment program with survey of stocks, bonds, mutual funds to include fundamental and technical analysis. Topics include how to read Wall Street Journal, annual reports and use of computer in stock selection and timing. Guest lecturers on estate planning, role of financial counselor and portfolio management.

**83a Real Estate Principles (Basic) (3).** (Evening College) 3 hours per week.

Legal basis of real estate transactions—Contracts, agency and property; real estate transactions—listing and purchase contracts, real estate financing, deeds, liens and encumbrances, escrows and title insurance; land descriptions; real estate mathematics; business opportunities. Assists toward basic license preparation.

**84 Real Estate Valuation, Investment and Management (3).** 3 hours per week. (Evening College).

Investments in general; investments in real estate; forms and nature of ownership; income tax shelter; and investment property analysis. A practical course designed to teach students how to successfully invest their savings.

**85 Real Estate Practice (3).** (Evening College) Prerequisite: Salesman's or broker's license, or completion of Business 83a and 84. 3 hours per week.

Comprehensive presentation of the techniques of operating a real estate business in the State of California with emphasis on the daily activities of salesmen and brokers. (Meets one of the state requirements for the broker's examination).

**87 Legal Aspects of Real Estate (3).** (Evening College) Prerequisite: Salesman's or broker's license or completion of Business 83a and 84; or completion of Business 85. 3 hours per week.

The practice of real estate brokerage, real estate sales, property management, real estate ownership, the management of the building of an estate and related topics, along with a study of the facts and principles of California Real Estate Law. (Meets one of the state requirements for the broker's examination.)

**88 Real Estate Finance (3)** (Evening College) Prerequisite: Salesman's or broker's license, or completion of Business 83a and 84; or completion of Business 85. 3 hours per week.

The practice of real estate brokerage, real estate sales, property management, real estate ownership, the management of the building of an estate, and related topics along with a study of the facts and principles of California Real Estate Law. (Meets one of the state requirements for the broker's examination).

**90a Beginning Shorthand (1-5)** Prerequisites: Completion of Business 92a or equivalent and completion of enrollment in Business English, English 50b or 1a. 5 class and 2 scheduled audio library lab hours by arrangement per week.

A self-paced foundation course in Gregg Shorthand principles with practice in simple dictation and transcription.

**90b Intermediate Shorthand (7).** Fall semester. Prerequisites: Business 90a or its equivalent and completion of or enrollment in Business 92b or equivalent; completion of or enrollment in Business English, English 50b or 1a. 10 class and one scheduled audio library lab hour by arrangement per week.

Thorough review of beginning shorthand theory principles. Training in vocational application of shorthand through intensive dictation and transcription with emphasis on the integration of specific secretarial skills; transcription, punctuation and related English review, vocabulary development, and efficient shorthand methods. Field trips, speakers, tapes, records and lab used.

**90bx Intermediate Shorthand (3).** (Evening College) College. Fall Semester. Prerequisites: Business 90a or its equivalent and completion of or enrollment in Business 92b or equivalent; completion of or enrollment in Business English, English 50b or 1a. 10 class and one scheduled audio library lab hour by arrangement per week.

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

**90p Alphabetic Shorthand (2).** (Evening College) Prerequisite: Completion of or enrollment in one typing course. 4 hours per week.

Foundation course in alphabetic shorthand — principles, dictation, transcription. Vocational or personal use.

**90r Refresher Shorthand (3).** Prerequisite: Enrollment in or completion of Business 92a or equivalent, and completion of or enrollment in Business English, English 50b or 1a. 3 class and 2 scheduled audio library lab hours by arrangement per week.

For students with insufficient training in shorthand to qualify for Business 90b. Review of Gregg shorthand principles and practice dictation and transcription.

**90X Individualized Skill Improvement (1).** Prerequisite: Completion of Business 90a, or equivalent. 1 class hour with two additional hours of A-V lab per week.

Opportunity for students to rebuild, maintain or increase skills previously attained.

**91 Business English (3-4).** Fundamental English preparation for all students—particularly helpful to Secretarial and Clerical majors. 3 hours per week.

Grammar, punctuation, spelling, word usage, vocabulary building and use of the dictionary. Emphasis on English of business through use of business-oriented materials. Recommended for students in any major who feel the need for improvement in fundamentals of English and vocabulary.

**92a Beginning Typing (3).** Prerequisite: No previous typing instruction. 5 hours per week.

Designed to develop correct typing techniques, keyboard mastery, proper care and operation of the typewriter, and basic skills in typing straight copy, business letters, simple tables, outlines and manuscripts.

**92b Intermediate Typing (3).** Prerequisite: Business 92a with a grade of C or better or an equivalent proficiency in typewriting. 5 hours per week.

Emphasis on increasing speed and accuracy of typing. Development of judgement and skill in the arrangement and typing of a wide variety of business office problems including letters, tabulations, purchase orders and invoices, manuscripts, rough draft copy, etc. Improvement on production rate of typing business office problems expected.

**92c Advanced Typing (3).** Spring semester. Prerequisite: Business 92b with a grade of C or better, or satisfactory completion of two years of typing in high school. 3 hours per week.

Production typing with emphasis on speed and accuracy in the preparation of business letters, business and legal forms, manuscripts, financial and statistical reports in project form. Helps develop judgment and initiative and ability to work with a minimum of direction. Recommended for all secretarial and clerical students.

**92r Refresher Typing (3).** Prerequisite: For students with insufficient training in typing to qualify for Business 92b. 5 hours per week.

Emphasis on improving keyboard control, correct typing techniques, and developing skill in typing straight copy, business letters, simple tables outlines and manuscripts.

**92Sa Spanish Typewriting (1-3).** Prerequisite: None; no previous typewriting instruction.

Beginning typewriting course for Spanish-speaking students, designed to develop correct typing techniques, keyboard mastery, proper care and operation of the typewriter, and basic skills in typing straight copy, business letters, simple tables, outlines and manuscripts. Taught bilingually.

**92X Typewriting Laboratory-Speed and Accuracy Building (1) (Eight weeks)**

This credit/no credit laboratory is designed to improve your ability to type straight copy with correct technique, develop accuracy, and increase speed. All work will be done in class and attendance is mandatory. May be repeated for credit.

**93 Machine Calculation (2).** Spring semester. Prerequisite: *Business 50 or permission of instructor.* 3 hours per week. Lab work- as assigned by instructor.

Performance of arithmetic calculations on machines emphasizing actual business situations and problems, starting with fundamentals, continuing to more complex practical business applications including allocation of expenses, depreciation and financial statement analysis. In-depth instruction (not acquaintanceship) on the operation of rotary-type calculators and touch system of operating printing calculators and electronic machines; also some ten-key adding machines. Strives to develop ability to follow instructions, speed, accuracy and neatness of work. (Recommended for all certificate and AA degree majors).

**100 Office Procedures and Office Administration (4).** Prerequisites: *Business 92b or an equivalent proficiency in typing; and completion of or enrollment in Business English, English 50b or 1a, 5 class and 4 scheduled lab hours per week scheduled by arrangement.*

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

**100a Office Procedures (2).** (Saturday), 4 hours per week.

Develops skill in use of transcribing and duplicating machines, electric typewriter and duplicating equipment in performing office work; reviews the basic filing rules and their application; develops the ability to maintain accurate payroll records; improves on-the-job telephone techniques; develops skill in the use of effective English; includes study and discussion of job application, the job interview and growing on the job.

**100b Office Procedures (2).** (Saturday) 4 hours per week.

Emphasizes increasing speed and accuracy in the use of machines and equipment used in Business 100a; further develops judgment and skill in the arrangement and typing of business office problems on the duplicating machines; continues the study of alphabetic, geographic and numeric filing; introduces the electronic printing calculator and the offset duplicating machines; focuses attention on English grammar and sentence structure; teaches appreciation of the elements of poise and personality as related to business.

**110 Fundamentals of Salesmanship (2).** Fall semester. 2 hours per week.

Covers the role and impact of personal selling in the

marketing process. Considers principles and techniques employed effectively in the direct sales process. Includes practical sales presentations by students. TV tape used for self-evaluation and improvement of sales presentations.

**116 Principles of Retail Merchandising (2)** Alternate Fall semesters. 2 hours per week.

Retail processes of chain and department stores emphasizing merchandise planning and control, buying and selling, pricing, personnel evaluation, and customer services. Lecture, class discussion and case problems used.

**117 Modern Retail Operation (2).** Alternate Fall semesters, 2 hours per week.

Small retail store operations. Topics include location analysis, franchising, merchandise, promotion and pricing. Management tools such as inventory control, accounting, and credit practices are also considered. Lecture, class discussion and case problems are used. No credit for students having had Business 65.

**120 Advertising (3).** Spring semester, 3 hours per week.

The role of advertising in our economic life with emphasis on advertising objectives and methods. Creation of print advertising. Evaluation of various media. Discussion of advertising ethics and campaign strategy. Includes student development of an advertising campaign.

**124 Marketing (3)** Spring semester. 3 hours per week.

Broad study of marketing principles and methods applicable to the development, manufacture, and selling of consumer goods. Major topics include customer research, product planning, marketing policies and practices, and price determination. Lecture, case problems and class discussions utilized in class sessions.

**134 Real Estate Appraisal (Basic) (3).** Prerequisite: *Completion of Bus. 83a and 84, or broker's license, or two years' full-time appraisal experience.* 3 hours per week.

Basic real estate appraisal; both residential and commercial properties are analyzed. Methods and techniques for determination of loan, market and insurance values. (Meets the state requirements for the broker's examination.)

**146a Advanced Estate Planning I (3).** (Evening College) Prerequisite: *CPA's, attorneys, trust officers, and chartered life underwriters employed in estate planning.* 3 lecture hours per week.

Detailed study of the law and instrumentalities of estate planning designed primarily for attorneys, CPA's,

trust officers and chartered life underwriters. The course will examine the theory and practice of the federal estate and gift tax, state death taxes, wills, trusts and estate planning for the individual.

**146b Advanced Estate Planning II (3).** (Evening College) Prerequisite: *Advanced Estate Planning I*. 3 lecture hours per week.

Instruction in fact finding, analysis and presentation of estate planning proposals. Ten estate planning case studies to be completed.

**150 Torts and Contracts (3).** Prerequisite: 6 months legal office work, or one year college training in legal subjects, or permission of instructor. 3 hours per week.

Recommended for Para-Legal Students only. Study of the various torts that make up the body of the substantive law of torts, including the basis of tort liability, the elements of actionable torts, and remedies and procedure; study of the basic law of contracts, including the elements of a contract, factors affecting their validity, construction and interpretation, and termination or rescission.

**151 Legal Research and Bibliography (3).** (Evening College). Prerequisite: 6 months legal office work or one year college training in legal subjects or permission of instructor. 3 hours per week.

By examination of the basic elements of criminal law, the student is introduced to reading and briefing legal cases and principles of legal writing; the differences between primary and secondary sources of law; indexes and citators; using outside sources such as title and court records, county and state law libraries, and specialized libraries and outside specialists; organization and management of a law office library and preparation of bibliographies; cite checking, etc.

**152 Trial Preparation and Study of Legal Ethics (3).** (Evening College) Fall semester. Prerequisite: 6 months legal office work or one year college training in legal subjects, or permission of instructor. 3 hours per week.

Introduction to the basics of trial practice and litigation; procedural law, including jurisdiction, venue, statutes of limitation and service of process; commencement of the lawsuit, preparation of pleadings and motions; discovery and fact investigation; pretrial considerations, preserving facts and preparation for trial; mock trial; post-trial motions and appeal; introduction to the ethical standards of the legal profession.

**153 Probate Administration (3).** (Evening College) Prerequisite: 6 months legal office work or one year

college training in legal subjects, or permission of instructor. 3 hours per week.

Fundamental principles involved in the legal process of probating an estate, including the basic law of wills, preparation of all pleadings and documents customarily used in the probate of an estate, preparation of state and federal inheritance tax and estate tax returns, methods and procedures and preparation of documents in conservatorships and guardianships.

**154 Family Law (3).** (Evening College) Prerequisite: 6 months legal office work or one year college training in legal subjects, or permission of instructor. 3 hours per week.

Legal principles applicable to the formation of the marriage contract, together with principles of law applicable to problems arising from the marital relationship, including; property rights; support obligations between husband and wife, custody and support of children, adoption.

**155 Corporations and Business Entities (3).** (Evening College) Fall semester. Prerequisite: 6 months legal office work or one year college training in legal subjects, or permission of instructor. 3 hours per week.

Basic orientation in business organizations involving sole proprietorships and partnerships with particular emphasis on corporations; including a study of the substantive law of each organization; the business and tax factors in the choice of form; licensing and registration requirements; preparation of forms; business aspects in buying and selling a business entity with preparation of agreements for sale; procedures for dissolving and liquidating a partnership or corporation, and procedures for qualifying a foreign corporation in California.

**156 Real Estate and Landlord-Tenant (3).** (Evening College). Prerequisite: Six months legal office work or one year college training in legal subjects, or permission of instructor. 3 hours per week.

Relationships between buyer and seller of real estate and between landlord and tenant, with particular emphasis on the role of the legal assistant in the analysis and solution of legal problems and in the preparation of documents in relation thereto.

**157 Bankruptcy and Debt Collection (3).** (Evening College). Prerequisite: Six months legal office work or one year college training in legal subjects, or permission of instructor. 3 hours per week.

General outline of bankruptcy jurisdiction and procedures, including powers of bankruptcy court, administration of bankrupt estates by receivers and trustees; preparation of schedules in voluntary cases, taking into consideration available exemptions; a general re-



view of arrangement proceedings under Chapters XI, XII and XIII of the Bankruptcy Act. Debt collection procedures, including determination of the nature of the action, venue, jurisdiction, prejudgement remedies, examination of judgment debtors, execution and other means of enforcing judgments.

**160a Machine Shorthand I (5).** *Prerequisites: Business English and Intermediate Typewriting or equivalent or concurrent enrollment. Laboratory: 12 1/2 hours per week. 2 hours per week by arrangement in audio lab.*

Presentation of the keyboard and basic theory of machine shorthand and phonetic writing; intensive practice dictation with emphasis on rapid and accurate reading back of notes, transcription of notes; emphasis on clear notes, and use of good English skills. All work in preparation for more advanced courses in Machine Shorthand. *Minimum speed attainment: 70 words per minute on dictation of new material and 80 on familiar material, transcribed with 95% accuracy for five minutes.*

**160b Machine Shorthand II (5).** *Prerequisites: Machine Shorthand I or its equivalent. 3 hrs. lab daily; 3 hrs. per week by arrangement in audio lab.*

Continuation of development of skill in recording dictation and reading notes in preparation for more advanced courses in Machine Shorthand. Thorough review of theory and principles learned previously with an inclusion of any other new theory to complete basic keyboard training. A wide variety of dictation materials will include familiar and new matter dictation, with transcription skills being further developed. *Minimum speed attainment: 100 words per minute on dictation of new material; 97.5 percent accuracy.*

**160c Machine Shorthand III (5).** *Prerequisites: Machine Shorthand II or its equivalent. 3 hrs. lab daily; 3 hrs. pr. week by arrangement in audio lab.*

Advanced skill development on the machine keyboard and on transcribing at the typewriter for mastery and perfection of skills. Designed to establish, develop and strengthen the link between theory dictation, transcription, and reporting skill. Dictation material includes increasingly more difficult matter. *Minimum speed attainment: 120 words per minute for five minutes on new matter dictation material; 98.5 percent accuracy of transcription.*

**160d Machine Shorthand IV (5).** *Prerequisites: Machine Shorthand III or its equivalent or consent of instructor; typewriting speed (60); and completion of 2 terminology courses (163, 164), their equivalent or consent of instructor. 3 hours lab daily; 3 hours per week by arrangement in audio lab.*

Continuation of machine skill development with concentration on progressively more difficult dictation material, emphasizing endurance for reporting skill, which includes straight matter material, correspondence, legal matter, some medical reports, timed transcription practice one hour per week. *Minimum speed attainment: 140 words per minute on new-matter dictation material; 98.5 percent accuracy of transcription.*

**160e Machine Shorthand V (5).** *Prerequisite: 160d or its equivalent or consent of instructor. 3 hrs lab daily; 3 hrs. per week by arrangement in audio lab.*

To continue to develop mastery and competency in the use of the shorthand machine with progressively more difficult dictation material, including courtroom testimony, reporting abbreviations, jury charge; emphasis will also be placed on the transcription ability of the student, with both speed and accuracy of taking dictation and transcribing as a continuing requirement. Timed transcription practice one hour per week. *Minimum speed attainment: 160 words per minute for five minutes on new matter with 98.5 percent accuracy.*

**160f Machine Shorthand VI (5).** *Prerequisite: Completion of 160e. 3 hours lab daily, 3 hours per week by arrangement in audio lab.*

Speed building continues with emphasis on actual court cases covering testimony in all phases of law. Timed transcription practice - one hour per week. *Minimum speed attainment: 180 words per minute on new dictation material with 98.5 percent accuracy.*

**161a Advanced Machine Shorthand Legal Dictation (5).** *Prerequisite: Completion of 160f with typing speed of at least 60 words per minute. 3 hours lab daily; 3 hours per week by arrangement in audio lab.*

Continued speed building through intensive dictation with read back of notes. Dictation material to include technical and non-technical material, medical and legal terminologies, jury charge, two-voice and four-voice dictation using both live and video-tape. Emphasis on accurate writing continues through taking new material at 200 to 225 w.p.m. for sustained periods. Goal for semester is passing one 200 w.p.m. test with 98.5 accuracy or better. Transcribing from notes continues with emphasis on timed transcriptions for one hour weekly.

**161b Advanced Machine Shorthand Legal Dictation (5).** *Prerequisite: Completion of 161a with typing speed of at least 60 w.p.m. 3 hours lab daily; 3 hours per week by arrangement in audio lab.*

Continued speed building through intensive dictation. Dictation material to include technical and non-

technical material, medical and legal terminologies, jury charge, two-voice and four-voice dictation using video-tape and NSRA Proficiency and Merit tapes. Emphasis on accurate writing continues through taking new material at 225 plus for sustained periods. Goal for semester is passing one 225 w.p.m. test with 98.5 accuracy. Transcribing from notes continues with emphasis on timed transcriptions for one hour weekly.

**162a Machine Shorthand Transcription (1).** Prerequisite: Completion of 91, 92b, or 92c or equivalent or consent of instructor. Laboratory: 3 hours per week.

Emphasis will be placed on the student's ability to type mailable copy from his notes. The material to be used will be actual court transcripts as well as technical and non-technical material. Emphasis will be placed on punctuation, spelling, vocabulary building and proofreading of copy.

**162b Dictation Technique/Office Practice (1).** Prerequisite: Completion of 162a (Enrollment in or completion of 162f recommended). Laboratory: 2 hours per week.

To instruct the student in developing proper dictation techniques on all transcription material, including dictating, punctuation and capitalization, as well as organizing an "information sheet" for transcriber. Office organization material included in the course: indexing, filing of notes, billing, recordkeeping or other organization skills.

**163 Vocabulary and Spelling (3).** Prerequisites: None. (Good English background helpful) 3 lecture hours per week.

Designed to prepare and encourage the student to develop word curiosity about unfamiliar words. It will provide an understanding and knowledge of general vocabulary words, with emphasis included on various professional disciplines.

**164 Legal Terminology (3).** Prerequisites: Completion of 160A; Completion of Business 163 recommended; Completion of or concurrent enrollment in Law (18a or 170) recommended. Three lecture hours per week.

A specialized study of development of a legal vocabulary basic to the student of court reporting. Course emphasizes usage of terminology on the shorthand machine.

**165a Medical Terminology (3).** Prerequisites: Completion of or concurrent enrollment in Business 160c or higher speed. 3 lecture hours per week.

All the human physiological systems are emphasized to develop the medical vocabulary necessary for students of court reporting. Basic training in medical terminology to be written on the machine will be concerned with the systems: skeletal, endocrine; muscular; respiratory; circulatory; nervous, and sensory; it will also include prefixes and suffixes, diagnostic, operative, and symptomatic terms and medical abbreviations and drug terminology.

**165b Advanced Medical Terminology and Dictation (3).** Prerequisite: Business 165a or its equivalent. 3 lecture hours per week.

A specialized medical and general anatomy vocabulary course designed for the purpose of studying prefixes and suffixes as well as diagnostic operative and symptomatic terms and medical abbreviations and physiological terminology. The course will also include pronunciation and vocabulary pertaining to the human physiological system with application toward machine writing.

**166 Courtroom Orientation/Survey/And Ethics (1).** Prerequisite: Completion of or concurrent enrollment in 160c. 1 lecture hour per week.

Overview of the court reporting and hearings field with actual courtroom observations and other visitations conducted for more in-depth understanding of the court reporting field and ethics of the profession.

**167 Library Resources/Legal Procedures (1).** 1 lecture hour per week.

To provide the student with a foundation for a thorough understanding of law library resources and reference materials and to provide the student with the ability to use such materials.

**168 Apprenticeship Training/Practicum (1/2-1).** Prerequisite: Attainment of high speed skill-minimum of 180 w.p.m. proficiency and recommendation of instructor. Twenty laboratory hours minimum (Recommended by the State Board)

To provide the student with the opportunity to attend and report actual proceedings or hearings after achieving 180 w.p.m. minimum proficiency on unfamiliar material, as well as to practice transcription and dictation of the same proceedings. **Machine Audio Lab Requirement:** Practice in Audio Laboratory on Stenograph Machine and instructional tapes is required as follows: (1) 160a - two hours per week by arrangement (2) 160b, c, d, e, f, 161a, and 161b - three hours per week by arrangement.

**170 Law For Court Reporting (5).** Prerequisite: Business 164, Legal Terminology helpful/suggested, either taken concurrently or previously. 5 lecture hours per week.

A course designed to provide the student with a foundation of the general concepts of law and acquaintanceship with general legal terminology and with procedural law including appellate procedures, the judicial system, and trial procedures. Areas of general concepts covered include: real and personal property, negligence and person injury, contracts, wills, probate, and domestic relations, corporate law, insurance, criminal law, and equity.

## BUSINESS ADMINISTRATION

Business 50 or 51 is recommended for Business Administration majors who feel the need of improving basic math skills.

**1a Financial Accounting (5).** *Prerequisite: None; Business 50 recommended preparation for students who need improvement in basic math skills. 5 hours per week.*

Techniques of communicating financial information to parties outside the organization. Accounting principles, transaction analysis and information processing for reporting financial position, income measurement, and resources generated and used. Interpretation and use of financial statements. Emphasis on corporate accounting. Practice set required.

**1b Managerial Accounting (5).** *Prerequisite: Business Administration 1a or equivalent with a grade of C or better. 5 hours per week.*

Uses of accounting within an organization for planning and controlling purposes. Analysis of information for management functions budgeting, manufacturing and cost accounting, responsibility accounting, and for evaluating alternative choices.

**2 Intermediate Accounting (3).** *(Evening College) Spring semester. Prerequisite: Business Administration 1a and 1b. 3 hours per week.*

Theory of accounts and periodic procedures including the reporting process. Intensive study of assets with emphasis on related problems of income measurement and presentation. Does not satisfy requirement for upper division intermediate accounting course at state universities.

**3 Cost Accounting (3).** *(Evening College) Fall semester. Prerequisites: Business Administration 1a and 1b. 3 hours per week.*

Accounting for labor, materials and overhead costs. Procedures for finding unit costs. Job order and process cost accounting. Standard cost accounting. Managerial cost applications. Does not satisfy requirement for upper division cost accounting at state universities.

**18a Legal Environment of Business (3)** *3 hours per week.*

Introduction to law applicable to business; the history and philosophy of the law, agencies for enforcement and court procedures; and the substantive law of contracts, agency and sales, under the Uniform Commercial Code. Legal problems pertaining to contracts, agency and sales and business associations and the impact of law on economic enterprise.

## CHEMISTRY

**1a-1b General Chemistry (5-5)** *Prerequisites: 1a—Chemistry 51 with a grade of C or better, or high school chemistry with grade 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. A qualification exam will be given at the first class meeting; students not qualifying will be counseled to take Chemistry 51 before continuing with Chemistry 1a. 3 lecture one recitation, and 5 lab hours per week.*

1a—Principles of inorganic chemistry for students majoring in Engineering, Physical Science, Pre-Med, Pre-Dental and other science fields. 1b—Continues the study of principles of chemistry and includes some descriptive chemistry of the elements, ionic equilibria, oxidation-reduction, qualitative analysis, introduction to nuclear chemistry, and introduction to organic chemistry.

**5 Quantitative Analysis (4).** *Prerequisite: Chemistry 1b (grade of C or better). 2 one-hour lectures; one hour recitation, and 5 lab hours per week.*

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, medical sciences, and some areas of life science.

**10 Environmental Chemistry (3).** 3 lecture hours per week.

Introduction to the language of chemistry, followed by investigations into the role chemistry plays in various aspects of our environment. Topics such as pollution, food additives, drugs, etc., examined from a chemistry point of view. This course meets the general education requirements for physical science including the lab science requirement at many colleges and university if Chemistry 10L is taken also.

**10L Experimental Environmental Chemistry (1).** Prerequisite: Concurrent enrollment in or completion of Chemistry 10. 3 hours lab and recitation per week.

Experimental examination of some materials in our environment; such as the making of soaps, examining of fuels, flammability of materials, etc.

**12a Organic Chemistry (5).** Prerequisite: Chemistry 1b with a grade of C or better. 3 lecture, 2 recitation, 4 lab hours per week.

The basic concepts of carbon chemistry; a study of the structure, nomenclature, and reactions of the important classes of aliphatic and aromatic compounds.

**30a Introductory Chemistry (4).** Prerequisite: One year high school algebra. 3 lecture; one recitation, and 2 lab hours per week.

Elementary course covering fundamental principles of general and inorganic chemistry with emphasis on applied chemistry rather than theoretical principles. Not accepted toward physical or life science major, or engineering, but will meet the requirements for many programs in home economics, nursing, environmental tech., etc.

**30b Introductory Chemistry (4).** Prerequisite: Chemistry 30a or Chemistry 1a. 3 lecture; one recitation, and 2 lab hours per week.

Same format as 30a, but with organic and biochemistry as subject matter.

**48 Special Topics (1-3).** 1 to 3 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.

**51 Elementary Chemistry (3).** Prerequisite: Mathematics 11 or one year of high school algebra. Concurrent enrollment in Geometry or Intermediate Algebra strongly recommended. 3 one-hour lecture and one recitation, and 2 lab hours per week.

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, with emphasis on simple problem solving.

**55 Chemistry for Water Quality Control (2).** (Evening College) 3 hours per week.

Basic study of the elements, compounds, formula and chemical equations, concentrations of solutions, etc. Examination of specific tests in water quality control and the discussion of problems in these tests.

## CHINESE

**1-2 Elementary Chinese (3-3).** (Evening College) 3 lecture hours per week.

Introduction to reading, speaking and writing modern Mandarin Chinese. Emphasis on the spoken language. Chinese culture background pertinent to the learning of the language will be supplemented.

## CONSERVATION

**1 Essentials of Conservation (3).** 3 lecture hours per week.

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

## COOPERATIVE EDUCATION

**47 Cooperative Education (1-4).** Six class meetings per semester. Veterans see below. See also Administration of Justice 47, Business 47, Early Childhood Education 47, Education 47, Environment 47, Food Technology and Management 47, Home Economics 47, Interior Design 47, Management 47, Recreation 47, Social Science (Gerontology) 47, Special Education 47. Credit/no Credit.

One unit of credit for each five hours of work per week (75 hours per semester) with a maximum of four units per semester can be earned by students who have jobs which are related to their occupational goals, with a maximum of 16 units in the College. Students who hold jobs not related to their occupational goals can earn a maximum of 3 units of Cooperative Education

per semester with a maximum of 6 units in the College. Enrollment in at least 8 units including Cooperative Education is required of all students. Through a combined program of work and study under the direction of a College coordinator, the relationship between theory and practical application is clearly established for students. Students are given appropriate assignments related to their learning objectives which have been developed in concert with the College coordinator, student and employer. Grades are given in accordance with the College's established grading system. Students must complete a minimum of eight units (including the Cooperation Education course) to earn Cooperative Education credit.

**The Parallel Program** operates concurrently with the daily studies. Through a program of work and study the relationship between theory and practical application is established.

**The Alternate Semester Plan** provides the student with full-time field experience (8 units) for half a year. The other half of the year is spent in school. Students must complete 12 semester units prior to the alternate semester and intend to return the following semester.

#### Veterans

In order for Cooperative Education units to be eligible for GI Benefits, a Veteran must attend one work experience class hour per week and be enrolled in a planned vocational program, and employed in a College-approved job directly related to their academic major.

For further information see your counselor or the Cooperative Education Director.

## DATA PROCESSING

(See Business 12, Business 61 and Mathematics 18.)

## DRAFTING

**55 Basic Architectural Drafting (2).** (Evening College) 3 hours per week.

Beginning program of planning and design for the family dwelling. Emphasis on architectural blueprint reading, floor plan design, home orientation, construction, local building codes, sketching and drafting.

## 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).** 3 class hours per week.

Study of the greatest plays and playwrights from classical Greece through the Elizabethan era in England. Principles underlying dramatic literature in each period will be related to dominant social, intellectual and artistic forces. Use of motion pictures, filmstrips, recordings and play attendance, as well as lectures and discussions.

**1b(x) Masterpieces of Drama Modern Era (3).** The second semester of this course. Students may take the course without having taken Drama 1a. 3 class hours per week.

Study of the great plays and playwrights from the 17th Century to the present. See description of Drama 1a.

**10 (x) Introduction to the Theatre (3).** 3 lecture hours per week.

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. Viewing video-tape recordings, motion pictures and stage plays; listening to recordings of plays. Subject matter will include such things as nomenclature, duties and responsibilities of the various theatre artists, traditions, script analysis, approach to a script from the director's viewpoint, the designer's viewpoint, the actor's viewpoint and the audience's viewpoint. Special lecturers may discuss publicity, performance, music and dance, motion pictures and T.V.

**13a-13b (x) Stage Production (3-3).** 2 lecture and 3 lab hours per week.

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

**13c-13d Advanced Stage Production (3-3).** Prerequisites: Drama 13a and 13b or their equivalent. 2 lecture and 3 lab hours per week.

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

**14a Theory and Practice of Acting (3).** 4 class hours per week.

Theories and techniques of acting and dramatic produc-

tion, presentation of scenes and oral reading, video-tape recordings, pantomimes and improvisations.

**14b-14c-14d Advanced Acting (3-3-3).** *Prerequisite: Drama 14a or equivalent. 4 class hours per week.*

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

**14aL-14bL-14cL-14dL Acting Laboratory(1-2).**

Supervised rehearsals of improvisations, pantomimes, oral readings and short scenes. Forms and styles of acting. Exercises in the use of mind, emotions, voice and body in acting. Acting scenes for drama classes and others.

**15 Play Production (1/2 to 2 units per play).** *Prerequisite: Tryouts.*

Problems of actual play production, acting. May be repeated for credit. Play rehearsal of seven weeks for each of three major productions per semester, the first four weeks of which are from 3-6 p.m. daily and the last three weeks from 7-11 p.m. daily.

**16 Production Shop (1/2 to 2 units per play).** *Hours by arrangement.*

Problems of actual play production. Scene building, lighting, properties, rigging and stage crew operations. May be repeated for credit. Students may work on one to three plays per semester.

**17 Costume-Fashion Design (2) 1 hour per week plus lab by arrangement.**

Problems of actual play preparation of costumes. This course will provide drama and fashion students the opportunity for practical experience in execution of costumes for dramatic productions, with possibilities for designing. May be repeated for credit.

**18 Make-up (1) 1 hours per week.**

Introduction to basic techniques of theatrical make-up. Development of skills in practical application.

**20L(x) Introduction to Directing (Lab) (1/2 to 2 units per play).** *One to three 2-hour labs per week.*

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. Study of composition, movement, tempo, climax and the use of sound and music. Preparation of play-production plans and prompt-books. Directing of scenes for classes in drama and other fields and discussion of ideas dramatized in the scenes. Emphasis on learning by actual directing under teacher supervision. May be repeated for credit.

**24(x) Modern Drama (3).** *Also English 24. 3 hours per week.*

Study, from a theatrical as well as a literary viewpoint, of the outstanding dramas written between 1880 and the present. Emphasis upon contemporary dramatic trends such as realism, naturalism, symbolism, expressionism, epic theatre, eclecticism. Appreciation and understanding. Reading, thinking, arguing and sharing. Relating drama to man's nature and problems and those to drama.

**25(x) Introduction to Shakespeare (3).** *Also English 25. 3 hours per week.*

Exploring and appreciating Shakespeare's best plays. A careful study of tragedy, history and comedy from Shakespeare's three major periods. The plays as superb fusions of poetry and drama, as mirrors of Renaissance and universal ideas and attitudes, and as summations of human nature and the human predicament. Emphasis upon Shakespeare as playwright, poet, psychologist and philosopher.

## EARLY CHILDHOOD EDUCATION

(Formerly Nursery School)

**11a Early Childhood Education Principles and Practices. (3)** *Also Psychology 11a. 3 lecture hours per week.*

Nature and goals of early childhood education. Evolution and exploration of various models of pre-schools and follow-through project. Exploration of the philosophic position, personalities and forces guiding the development of these early childhood programs.

**11b Early Childhood Education Curriculum (3).** *Also Psychology 11b. 3 lecture hours per week.*

Selecting, developing, and managing activities for young children. Developing skills in providing adequate and effective education. Learning and values inherent in children's play. Exploration of creative activities and growth experiences through art, music, language development, dance, science, and math.

**14 Creative Activities for the Young Child. (3).** *3 hours per week.*

Designed to give practical skills in presenting activities to young children. The student will understand the role of creativity; how to stimulate creative expression through art media, music, dramatic ac-

tivities, science and games both indoors and outdoors; and how to offer a variety of experiences to children through development of the student's own creative abilities and awareness of different approaches to curriculum development.

**47 Cooperative Education (1-4).** *Credit/no credit.*

Supervised field experience.

**115 Introduction to Early Childhood Education Administration (3).** *3 lecture hours per week.*

Provides students with in-depth knowledge of city, county and state licensing requirements. The primary goal is to acquaint the student with early childhood education business characteristics, staff management procedures, parent-teacher relationships, staff qualification and teacher-child relationships.

## ECONOMICS

**1a Principles of Economics (3).** *3 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).** *Prerequisite: None. Economics 1a recommended. 3 hours per week for lectures and discussion.*

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).** *3 lecture hours per week.*

Non-theoretical consideration of the major economic problems which confront the citizen today. Students who have completed Economics 1a or 1b or Business 11 will not receive credit for this course.

**11 Economic History of the United States (3).** *3 hours per week.*

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. (This course may be used to fulfill the American Institutions requirement.)

**14a Working in America (3).** *3 hours per week for lecture and discussion.*

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 Underdeveloped Areas (3).** *3 lecture hours per week.*

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 American today.

For Economic Statistics, see Statistics.

## EDUCATION

**1 Introduction (3).** *3 lecture hours per week.*

Exploring the total spectrum of education including preschool, elementary school, junior high school, senior high school and junior college. Will explore the strength in the educational system, the areas of concern, current innovations, the challenges facing education, such as testing, bussing middle-class and sub-culture values.

**2 The Teacher Assistant (2).** *Prerequisite: Education 1 or consent of instructor. 2 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).** 3 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 assistant.

**4 Children's Literature, Storytelling (3).** Also English 4. 3 hours per week.

Designed to give laboratory experience in presenting stories and poetry to children in the kindergarten-primary grades and to acquaint the teacher assistant, teacher, library aide and librarian with the history of literature for children and the outstanding authors and illustrators of children's books.

**47 Cooperative Education (1-4).** Credit/no credit. Supervised field experience.

## ELECTRONICS

**10 Introduction to Electronics (3).** (Evening College) Open to all students except those currently enrolled in or who have completed a college course in electronics. 3 hours per week.

Study of basic electronics with a descriptive presentation and a non-mathematical approach. The influence of electronics in all phases of business, science and daily life is stressed.

## ENGINEERING

**10 Engineering and The Environment (2).** Prerequisite: None, but required of Engineering majors. 2 lecture hours per week.

Technological assessment of current and future problems facing mankind, including the ecological, legal, social and political aspects and their interconnections. Exploration of the engineering systems' ap-

proach to finding and providing optimum solutions of environmental needs. Various present-day problems will be analyzed. This course is open to both technical and non-technical majors.

**19 Fundamentals of Photogrammetry (3).** (See Geology 19)

**20 Descriptive Geometry (2).** Prerequisite: Mathematics 21. 6 lab hours per week.

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

**22 Engineering Graphics (2).** Prerequisite: Mathematics 30 or 23a or consent of the instructor. 6 lab hours per week.

Numerical and graphical calculus. Nomography. Introduction to creative design. Design project.

**35 Vector Statics (3).** Prerequisite: Mathematics 30 or 23a or consent of instructor. 3 lecture hours per week.

Plane and space force systems; equilibrium problems covering structures, machines, distributed force systems, friction, moments of inertia and virtual work.

**36 Vector Dynamics (3).** Prerequisites: Engineering 35, Mathematics 31 or 23b; Physics 4b (or 2b with a grade of B). 3 lecture hours per week.

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

**37 Strength of Materials (3).** Prerequisites: Engineering 35 and Mathematics 31 or 23b. 3 lecture hours per week.

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

**38 Circuits and Devices (3).** Prerequisites: Mathematics 31, 23b, Physics 4b recommended or consent of instructor. 3 lecture hours per week.

Introduction to electrical and electronic circuits and devices. Network theory. Amplifier theory. Instruments.



**48 Special Topics (1-3)**

Selected topics in Engineering. Course content and units to be determined by the Mathematic/Engineering Division in relation to need and available staff.

**50 Introduction to Materials Evaluation (Nondestructive testing) (3).** *(Evening College) 3 hours per week.*

Introduction to the nondestructive testing with emphasis on developing the basic and theoretical background needed to understand the nature of the various tests, their uses and interpretation of inductions.

**51 Magnetic Particle and Penetrant Inspection (3).** *(Evening College) Prerequisite: Engineering 50 (Introduction to Materials Evaluation) or consent of instructor. 3 lecture hours per week.*

Designed to develop the physical and theoretical background needed to understand the nature of magnetic particle and penetrant inspection with emphasis on their uses and interpretation.

## ENGLISH

The Cañada English Placement Test is required of all students who have not taken a college composition course by the time they enter Cañada. Special exemption is also made for students who program totals fewer than 9 units and who do not intend to take an English class.

Students who have taken Placement Exams at either the College of San Mateo or Skyline College may substitute results from those colleges. No other exams are acceptable.

Those taking the placement Exam will ordinarily be placed in either English 1a or English 50a. Other class placements will be made for those students requiring remedial courses.

**Credit By Examination:** May be undertaken by arrangement with the English Division. The Division recognizes the C.L.E.P. examination.

**Advanced Placement Credit:** Students who have taken the Advanced Placement Test in English and who have scored 3 may receive credit for English 1b; those who have scored 4 or 5 will receive credit for English 1a or 1b. Test scores and a written petition for this credit should be filed in the Registrar's office.

**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).** *3 hours per week.*

Intensive reading and writing based on a study of primarily non-fiction materials.

**1b Introduction to Literature (3).** *Prerequisite: English 1a. 3 hours per week.*

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

**2 Advanced Composition (3).** *Prerequisite: English 1a, 1b. 3 hours per week.*

Practice in writing, based upon the extensive and intensive reading of literature. Students will be asked to write in many different forms, and some emphasis will be placed on the longer essay.

**4 Children's Literature, Storytelling (3).** *Also Education 4. 3 hours per week.*

Designed to give laboratory experience in presenting stories and poetry to children in the kindergarten-primary grades and to acquaint the teacher assistant, the teacher, the library aide and the librarian with the history of literature for children and the outstanding authors and illustrators of children's books.

**6 Basic Technical and Report Writing (3).** *Prerequisite: English 1A or consent of instructor. Three lecture hours per week.*

Basic Technical and Report Writing is designed to help the student become skilled in the basic techniques of report writing. Students will write papers about their technical areas or interests, including office letters and memos and other reports. Basic principles for achieving successful written communication - in both formal and informal situations - are set forth with frequent reference to the fields of psychology, marketing, and semantics.

**7 Advanced Technical and Report Writing (3).** *Prerequisite: English 6. 3 lecture hours per week.*

The Advanced Technical Writing course is designed to help the student refine written communication skills. A major goal is more direct, clear, and concise written technical reports. Designed for employees in industry and government, and students interested in technical writing, assignments will include problem-oriented reports on topics from students' technical areas, the creating of hypothetical problems and attempts at solving these problems in reports. Basic principles for achieving successful written communication - in both formal and informal situations - are set forth with frequent reference to the fields of psychology, marketing and semantics.

**9a-9b Creative Writing (3).** 3 hours per week.

The craft of writing fiction and poetry. Fall sections will concentrate exclusively upon fiction, spring sections entirely upon poetry.

**20 Language and Linguistics (3).** Prerequisites: English 1a; its equivalent; or by recommendation. 3 lecture hours per week.

The scientific study of language, linguistics, examines structure, history, derivation, and evaluation of language expression. Theoretical applications are made to world languages and to learning theory.

**21 The Short Story (3).** (Evening College) 3 hours per week.

Study of an anthology of short stories. Class discussion, oral readings and literature.

**23 Introduction to Poetry (3).** Prerequisite: English 1b or permission of the instructor. 3 hours per week.

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

**24 Modern Drama (3).** Also Drama 24. 3 hours per week.

Study from a theatrical as well as a literary viewpoint, of the outstanding dramas written between 1880 and the present. Emphasis upon contemporary dramatic trends such as realism, naturalism, symbolism, expressionism, epic theatre and eclecticism.

**25 Introduction to Shakespeare (3).** Also Drama 25. 3 hours per week.

Exploring and appreciating Shakespeare's best plays. Careful study of tragedy, history and comedy from Shakespeare's three major periods.

**27 Modern Literature (3).** Prerequisite: English 1a or permission of the instructor. 3 hours per week.

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).** 2 lecture and 2 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).** 2 lecture and 2 lab hours per week.

Theoretical and practical course on the art and tech-

nique 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 Drama Study and Appreciation (3).** 3 lecture hours per week.

An introduction to the literary bases of dramatic art, with an emphasis on structure of drama. Frequent play attendance will be stressed. Discussion and written analyses follow.

**29b Classic Theatre (3).** Thirteen 2-4 hour television programs over 13 weeks.

Thirteen productions from the BBC, each a classic of its genre, will be seen via public television for this course. Class meetings undertake analysis of each play, based on playreading and at-home viewing.

**30 Major Figures in American Literature (3).** Prerequisite: English 1a or permission of the instructor. 3 hours per week.

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

**31 The Nonfiction Film (3)** 3 lecture hours per week.

Study of the nonfiction film (including documentaries, propaganda film and poetic/lyrical films) in order to understand the nature, the potential, the power, and the impact of such films within the historical perspective of both motion pictures and the human condition.

**36 Science Fiction and Fantasy (3).** 3 hours per week.

Study of science fiction and fantasy emphasizing 20th Century works. Both popular writers and established literary figures covered in wide range of forms, types and themes of SF. Extensive and intensive readings, lectures, discussion, critical papers in areas of individual interest, for those choosing grade.

**37 English Electives (1-2).** 3 hours per week for 6 or 12 weeks.

Study of important literature, language or media, offered on a variable basis from semester to semester depending upon student interest and faculty expertise in a particular area. See the semester schedule for specific offerings.

**38 Literature By and About Women (3).** Prerequisite: An interest in literature and people. 3 lecture hours per week.

This course explores women writers' views of women

and men in short stories, novels, poetry, drama, and film. A sweeping panorama of a changing world appears as the class discusses literature beginning with the ancient Greeks up to contemporary feminist writers, comparing men and women writers on similar themes. This course meets Humanities requirement for the A.A. degree.

**41 Black Poetry (3).** 3 hours per week.

Survey of the oral and written tradition in the poetic theory and practice of the black poet in America from 1619 to the present. Recordings of poetry readings, song lyrics; lectures and readings by visiting poets.

**42a Masterpieces of Classical and European Literature (3).** Prerequisite: Enrollment in English 1a or permission of the instructor. 3 hours per week.

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).** Prerequisite: Enrollment in English 1a or permission of the instructor. 3 hours per week.

Study of selected European novels, short stories and plays from the 17th Century to the present. Reading, analysis and discussions; written reports, oral readings and lectures.

**43 Black Literature (3).** 3 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. (This course may be used to fulfill the Ethnic Studies requirement.)

**44a Mexican-American Literature (In English) (3).** 3 hours per week.

Study of literature written by Mexican-Americans. Emphasis will be placed upon contemporary stories, poems and essays. (This course may be used to fulfill the Ethnic Studies requirement.)

**44b Myth and Folklore of La Raza (3).** 3 lecture hours per week.

Study of the folk literature of Mexican and Mexican-American peoples, with special emphasis on their effect on contemporary values. (This course may be used to fulfill the Ethnic Studies requirement.)

**45 Russian Novem and Short Story (3).** (Evening College) 3 lecture hours per week.

A study of important Russian writers from Pushkin to

Solzhenitsyn. Emphasis will be on works of major writers such as Tolstoi, Dostoyevsky, and Chekhov. All works will be read in translation.

**46a Survey of English Literature (3).** Prerequisite: English 1b or permission of the instructor. 3 hours per week.

Study of the typical works of major English writers from Chaucer to the end of the 18th Century. Discussions, lectures, recordings.

**46b Survey of English Literature (3).** Prerequisite: English 1b or permission of the instructor. 3 hours per week.

Study of the typical works of major 18th and 19th Century English writers. Discussions, lectures, recordings.

**46c Survey of English Literature (3).** Prerequisite: English 1b or consent of instructor. 3 lecture hours per week.

Study of major English writers of the 20th century, including Woolf, Eliot, Yeats, and Huxley.

**48 Innovative Courses (3).**

An experimental three unit English elective course meant to serve the temporary needs of Cañada students.

**50a Reading and Writing (4).** 4 hours per week.

Reading of fiction and nonfiction materials; vocabulary study; short papers, some work on study skills, critical thinking and basic writing skills. Course is designed to increase reading and writing skills and to develop an interest in reading for pleasure and information. English 50a and 50b are recommended for students who have found previous English courses difficult.

**50b Reading and Interpretation (4).** 4 hours per week.

Reading and study of plays, novels, poetry, stories. Vocabulary study. Quizzes and short compositions based upon the reading.

**55 English Fundamentals and Grammar Review (3).** 3 lecture hours per week.

While primarily intended as a semester-length "brush-up" course, English 55 also serves the remedial needs of students whose English Placement Test indicates a need for stringent review. Grammar, punctuation, vocabulary and diction are included in the course.

**56 Vocabulary Lab (3).** *One lecture and 2 lab hours per week.*

Course in vocabulary improvement, including use of context and structural clues, use of the dictionary, and using work lists, tapes, and filmstrips of varying difficulty. Key technical terms in different context areas will be studied also. Frequent individual quizzes and checkups.

**57a-b English as a Second Language (5-5).** *Prerequisites. Assignment by faculty personnel and by inclass test. 5 hours per week.*

Study of English grammar and composition, drill in oral and written vocabulary, sentence structure and English idiom. May be repeated once for credit.

**58 Spelling and Word Formation (3).** *One lecture hour per week.*

Students may be placed in English 58 as a result of their English Placement Test results, but the course is open to all students. Word history, derivation, formation and spelling rules are covered in the course.

**67a Developmental Reading (1/2-3).** *Credit/no credit.*

By means of individual and small group work, Developmental Reading concentrates on the teaching of basic reading skills. Word attack, vocabulary, and comprehension improvement are stressed. The course may be repeated for credit, and is open for enrollment until the twelfth week of the semester.

**67b College Reading (1/2-1 1/2)** *Credit/no credit.*

By means of individual and group work, College Reading stresses study skills, reading speed and comprehension, and vocabulary work. The course is especially recommended for those students whose reading and study skills require short-term help. The class meets for two nine-week sessions; students may enroll in the class until the fourteenth week of the semester.

**67c College Reading (1/2-1 1/2)** *Credit/no credit. Prerequisite: English 67b.*

Advanced work in college reading based on the skill level achieved in English 67b.

**67d College Reading (1/2-1 1/2)** *Credit/no credit. Prerequisite: English 67c.*

Advanced work in college reading, based on the skill level achieved in English 67c.

**68a Developmental Writing (1/2-3)** *Credit/no credit.*

By means of individual and group instruction, Developmental Writing concentrates on basic skills in

writing. Sentence and paragraph composition is stressed, and attention is given to standard writing conventions and mechanics. The course may be repeated for credit as often as necessary. Students may enroll until the twelfth week of the semester. Class meets for three hours per week.

**68b College Writing (1/2-1 1/2)** *Credit/no credit.*

Although intended to augment writing instruction in other English courses, College Writing is open to all students requiring individual or group work in English composition. Particular emphasis is placed on organization, quality and support of ideas, and language effectiveness; various methods of effective essay-writing are stressed. Class meets in eight week sessions for three hours per week; students may enroll until the end of the twelfth week of the semester.

**68c College Writing (1/2-1 1/2).** *Credit/no credit. Prerequisite: English 68b.*

Further work in English Composition, based on skill level achieved in English 68b. Class meets in eight week sessions for three hours per week; students may enroll until the end of the twelfth week of the semester.

**68d College Writing (1/2-1 1/2).** *Credit/no credit. Prerequisite: English 68c.*

Further work in English Composition, based on skill level achieved in English 68c. Class meets in eight week sessions for three hours per week; students may enroll until the end of the twelfth week of the semester.

**69 Learning Workshop (1).** *Credit/no credit. 3 hours per week for 8 weeks.*

Course designed to help students solve ordinary study problems with specific emphasis on understanding and getting through reading assignments; writing themes, term papers and essay examinations; taking notes, and setting up realistic study and personal schedules. May be repeated for credit as often as necessary.

**MLC-1 Individualized College Reading (1/4-1).** *Credit/no credit. An open-entry, open-exit laboratory class; hours by arrangement.*

An individualized program for students who do not have the necessary skills for reading college-level material. Students may work independently or with the guidance of an instructor and may complete whichever segments of the worktext will be most valuable to them. The class is housed in the Media Learning Center.

**MLC-2 Comprehension Skills (1/4-1) Credit/no credit.** An open-entry, open-exit laboratory class; hours by arrangement.

A program of reading comprehension instruction which allows students to work with either 2, 4, 6, or 8 booklets and tapes (optional) on various aspects of reading comprehension. Designed to supplement existing classes in English and other subjects. The class is housed in the Media Learning Center.

## ENGLISH AS A SECOND LANGUAGE (ENGLISH INSTITUTE)

The English as a Second Language Program, or English Institute, is designed primarily for students who desire to study or review English in preparation for college studies. Students may take from one to four courses per semester for maximum of 18 units in any one semester. The ESL 1 series (Beginning) and ESL 3 series (Intermediate) are normally offered in the fall semester, while the ESL 2 series (Advanced Beginning) and ESL 4 series (Advanced) are usually offered in the spring semester, thus forming a consecutive two- to four-semester intensive or semi-intensive English studies program depending on initial placement and number of courses selected. An ESL Placement Test is required. Courses may be repeated for credit. Additional information may be obtained from the Director of the English Institute.

El "Programa de Inglés Como Lengua Secundaria" o "El Instituto de Inglés" es principalmente para los estudiantes cuya lengua materna no sea inglés y que desean estudiar o repasar el inglés para prepararse para estudios universitarios o estudios vocacionales. Se puede tomar de uno hasta cuatro cursos por semestre hasta 18 unidades en total por un semestre. Los cursos de la serie número 1 (cursos primarios) y de la serie número 3 (cursos intermedios avanzados) se ofrecen normalmente en el primer semestre (septiembre-enero) y la serie número 2 (cursos intermedios) y el serie número 4 (cursos avanzados) se ofrecen en el segundo semestre (enero-junio). Así se forma de dos hasta cuatro semestres consecutivos de estudios intensivos o semi-intensivos en el programa de inglés contando con donde uno se coloque al principio y el número de los cursos que uno desea tomar. Un examen de colocación "ESL" es obligatorio. Se puede obtener más informaciones del Director del Instituto de Inglés.

**1G, 2G, 3G, 4G Grammar (5).** 5 class hours per week.

Basic, intermediate, and advanced grammar and word study and practice for students whose native language is other than English.

**1R, 2R, 3R, 4R Reading (1-3).** 5 class hours per week.

Basic, intermediate, and advanced practice in reading English for students whose native language is other than English. Comprehension and vocabulary development are stressed.

**1S, 2S, 3S, 4S Speech (5).** 5 class hours per week.

Basic, intermediate, and advanced practice in English conversation for students whose native language is other than English. Special attention to pronunciation, aural comprehension, and the use of idiomatic expressions.

**1W, 2W, 3W, 4W Writing (1-3).** 3 class hours per week.

Basic, intermediate, and advanced practice in writing English for students whose native language is other than English. Emphasis on the grammar and mechanics of written academic English.

**46a-46b Cultural Orientation (1/2-1).** Credit/no credit.

English to help reinforce listening comprehension skills. The program includes listening to ESL tapes, stories, the Chicano series, plus recordings of Carl Sandburg, Joan Baez, and Martin Luther King. 1/2 unit of credit for 24 hours of listening, 1 unit of credit for 48 hours of listening-post time. The student may start at any point in the program. Listening units are numbered from 1 to 10, lower numbers are less complex than higher ones. Course may be repeated once for credit. All materials are housed in the Media Learning Center.

## ENVIRONMENT

**1 Introduction to the Biological Aspects (3).** 3 lecture hours per week.

Introduction to the concept of the natural environment, including the factors of water, atmosphere, geography, biological limiting influences, tolerances, ecology and waste disposal.

**2 Introduction to the Political and Social Aspects (3).** 3 lecture hours per week.

Study of political institutions and historical backgrounds related to today's environmental concerns, plus development of an environmental vocabulary necessary to participate in the environmental

debates on a fairly sophisticated level. "Eco-tactics" are emphasized as members of the class choose, plan and carry out a group project dealing with some aspect of environmental concern. Course content focuses on issues in California and San Mateo County such as land use plans, different types of pollution and their correction, various methods of changing people's attitudes, etc. This course is designed as a companion to Environment 1, 3 and 4, as a General Education course and as an introduction to careers in the environmental field. (This course may be used to fulfill the American Institutions requirement.)

**3 Introduction to the Physical Environment (3).** 3 lecture hours per week.

Building on the central theme of Energy, this course examines the atmosphere, hydrosphere, and lithosphere. The stresses that man's technology exerts on our environment emphasized, including topics of pollution, noise, food additives, etc.

**4 Introduction to the Planning Aspects (3).** 3 hours per week for lecture, discussion and demonstration.

Course emphasizes learning how planning decisions are made. Special emphasis is placed on governmental agencies that make environmental decisions; local, state, and federal. The role of regional government and its growing influence is reviewed. Issues such as, housing, transportation, open space, zoning, new towns, and urban infrastructure will be analyzed. Use of U.S. Census data and governmental reports part of course. (This course may be used to fulfill the American Institutions requirement.)

**51 Basic Mathematics for Treatment Plant Operators (1).** (Evening College) 3 hours per week for 8 weeks.

Fundamental mathematic operations pertinent to treatment plant personnel, general field operations, personnel and persons interested in the expanding field of environmental control technology.

## FOOD SCIENCE

**1 Introduction to Food Science (3).** Two 2 hour lecture/lab demonstration periods per week.

Biology and chemistry of foods including acids, alkalis, bacteria, sanitation, contamination, food spoilage and preservation, food additives, biology of taste and smell, nutritional labeling.

## FOOD TECHNOLOGY AND MANAGEMENT

Students majoring in Food Technology and Management must consult with the department before completing registration.

**47 Cooperative Education (1-4).** Credit/no credit.

Credit for supervised, on-the-job, work experience in the food services, hospitality or allied industries. A unit of credit, up to a total of four units, is given for each five hours of work, weekly, in a job or position related to the Food Technology and Management major. Course consists of lecture meetings, visitation by Cooperative Education supervisor to student's place of employment, reports by the employer and reports by the student.

**L50a-50b Quantity Food Preparation (4-3).** (See 51a-51b.)

**51a-51b Quantity Food Preparation (2-2).** Prerequisite: None. Beginning students must enroll in 50a-51a or 50b-51b and alternate the next semester, unless excused by Department Chairman because of prior training or experience. Concurrent registration in Food Tech. 56 and 68 are required for all beginning students in 50a or 50b. 50a-12 lab (kitchen) hours per week. L50b-9 lab (kitchen) hours per week. 51a-b-2 lecture hours per week.

Training and experience in basic quantity food preparation and service. Students work by teams and are rotated through all kitchen and service stations. Students are under supervision of student chef and student manager, with overall supervision by the instructor. Students prepare food for cafeteria and Faculty Dining Room and serve in Faculty Dining Room.

**52-L52 Food Preparation Supervision (1-2).** Prerequisite: Food Technology 50a and 50b or permission of instructor. One lecture hour and 6 lab hours per week.

Experience in middle-management. The principles of supervising while being supervised. Advanced students are scheduled as student chef or student manager for six hours, one day a week. Student chef is in charge of kitchen and preparation stations. Student manager is in charge of service and faculty dining room. May be repeated once for credit.

**54a-b, L54a-b Advanced Food Preparation (1-3).** Prerequisite: Food Technology 50a-50b or permission of instructor. One lecture and 9 lab hours per week.

Advanced cooking techniques, analysis of meat cutting, introduction to buffet and preparation of canapes, hors d'oeuvres, advanced soups and sauces.

**55a-b, L55a-b Modern Baking (1-1).** One lecture and 3 lab hours per week.

Practical lab experience in the methods of baking breads, cakes and confectionary. Introduction to decorating for modern food service requirements.

**56 Dining Room Service Training (1).** Concurrent registration in Food Technology 56 is required for all beginning students in 50a or 50b. One lecture hour per week.

Waiter/Waitress training: An introduction to dining room service by lecture, demonstration and practice. Lab experience in the faculty dining room. Students will learn the procedures for correct and proper table service to customers.

**57 Natural Bread Baking (1).** (Evening College) Spring semester. 3 hours per week.

Designed to teach the student how to prepare and bake various types of bread with emphasis on the use of natural ingredients, different grains and leavening agents. Preparation of salt-free and dietetic breads will be included.

**60a Quantity Food Purchasing (2).** Prerequisite: Completion of or enrollment in Bus. 50 or Bus. 51, or consent of instructor. 2 lecture hours per week.

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.

**60b Food and Beverage-Cost Controls (2).** (Evening College) Prerequisite: Completion of or enrollment in Bus. 50 or Bus. 51, or consent of instructor. 2 lecture hours per week.

Breakdown of food and beverage cost controls—relating to the food industry. Today's new methods of maintaining controls on the costs of foods, beverages, and allied products in order to make a profit.

**62 Flambé Cookery (1-1 1/2)** (Evening College) one lecture hour and one to two lab hours per week.

Introduction to Flambé cookery, its special uses, menu planning, preparation, service and costing of classical and modern entrees.

**65 Menu Planning (2).** 2 lecture hours per week.

Essentials of proper menu planning, menu technology, pricing, layout and design.

**67 Kitchen Aide Training (1 1/2)** Prerequisite: Admittance by counselor referral. One lecture and 3 lab hours daily.

To enable students to acquire the skills needed for

entry-level employment as kitchen aides and warewashers. Training will lead to expertise in ware-washing, dining room bussing, pantry work, salad preparation, and assisting in the kitchen.

**68a Sanitation and Safety for the Hospitality Industry (1).** Required enrollment for students enrolled in their first semester of Food Tech program One lecture hour per week.

Basic knowledge needed to protect the public, the consumer, the customer and the food service worker.

**68b Sanitation and Safety for the Hospitality Industry (3).** (Evening College) 3 lecture hours per week for 16 weeks.

Basic knowledge needed to protect the public, the consumer, the customer and the food service worker.

**70 Food Management Problems (2).** Prerequisite: Sophomore standing in Food Technology program. 2 lecture hours per week.

General survey course including personnel supervision, financial, public relations and other management problems. Guest lecturers and field trips.

**90 Introduction to Food Service—Hospitality Industry (2).** Fall semester.

To acquaint students with the broad spectrum of the food service/hospitality industry, its publications, opportunities and needs. To provide all Food Technology students an opportunity to explore all the fields of employment available to them and to stimulate student interest in training for employment in the food industry. To provide students with the widest possible overview of the industry. To acquaint students with the specifics of food and lodging training in a wide variety of areas in which there are maximum job opportunities.

**93 Hotel-Motel Front Office Procedures (2)** (Evening College) 2 lecture hours per week.

Course provides instruction in different methods of routing behind the hotel desk, the use of basic forms employed in various types of hotel-motel resorts, the renting of rooms and the proper procedures for reservations and inquiries. Includes discussions of types of credit systems, business ethics, and general public-relations problems.

**100 Food Service Training (2).** 1 lecture and 3 laboratory hours per week.

Lab-lecture course in food service preparation covering nutrition, sanitation, orientation, and human relations. Not acceptable as part of the Food Technology Certificate or AS Degree program. Developed for the OICU students.

## FORESTRY

**1 Introduction to Forestry (3).** 3 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.

## FRENCH

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).** 5 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.

**2 Advanced Elementary French (5).** Prerequisite: Completion on the college level of the first semester with a passing grade or assignment by the English-Foreign Language Division. 5 class hours per week.

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).** Prerequisite: Completion on the college level of the first two semesters with a passing grade or assignment by the English-Foreign Language Division. 5 class hours per week.

Reading of short stories, plays 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).** Prerequisite: Completion on the college level of the third semester with a passing grade or assignment by the English-Foreign Language Division. 3 class hours per week.

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.

**25a-25b Advanced French (3-3).** Prerequisites: 25a—Completion of the fourth semester with a passing grade or assignment by the English-Foreign Language Division; 25b—25a. 3 class hours per week.

Reading and discussion of works of French literature. Continued review of principles of grammar.

**27 French Pronunciation (2).** Prerequisite: No absolute prerequisite, but background in French recommended. 1 1/2 lecture and 1 1/2 lab hours per week.

Comprehensive study of the theory and practice of pronunciation of the French language. Practical approach, with an emphasis on much oral work in class and in the language laboratory, to improve the pronunciation skills of those persons who have been, or who will be, exposed to French at some level.

**46 Foreign Language Laboratory (1/2-1)** Credit/no credit. 3 lab hours per week.

A program consisting of 25-50 hours of work to be done in the language laboratory emphasizing speaking and understanding French.

**100a Introduction to Oral French (2).** Credit/no credit. 3 hours per week.

Practical course in the French language approached by way of conversation. Intensive drill in the formulas and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100b Intermediate Oral French (2).** Credit/no credit. Prerequisite: French 100a. 3 hours per week.

Further drill in the formulas and idioms of daily speech supported with sufficient grammar to give flexibility in the spoken language with particular attention paid to enlarging the particular vocabulary. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100c Advanced Intermediate Oral French (2).** Credit/no credit. Prerequisite: French 100b. 3 hours per week.

More advanced drill in the formulas and idioms of daily speech supported with sufficient grammar to give flexibility in the spoken language with particular attention paid to enlarging the particular vocabulary. (This course will not fulfill language requirement at California State Colleges or at the University of California.)



**100d Advanced Oral French (2).** *Credit/no credit. Prerequisite: French 100c. 3 hours per week.*

Further advanced drill in the formulas and idioms of daily speech supported with sufficient grammar to give flexibility in the spoken language with particular attention paid to enlarging the particular vocabulary. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

## GEOGRAPHY

**1a Physical Geography (3).** *Prerequisite: High school geometry is highly recommended. 3 hours per week for lecture, discussion and demonstration.*

Basic characteristics of maps, the earth's grid, seasons, time, weather and climate soils, and vegetation, ocean currents, landforms. The interrelationship of these basic factors will be analyzed in the regional framework of the entire earth's surface. Strong emphasis will be placed on the regional concept and the use of maps as a primary tool for this study.

**1b Cultural Geography (3).** *3 lecture hours per week.*

Within the framework of world regions and cultural realms, this course will analyze the areal distribution of the most important parts of man's cultural occupation of the earth. Emphasis on the way man makes a living. Consideration of culture within the framework of race, language, religion, political boundaries, population distribution and settlement patterns will be the basic outline.

**3 Geography of California (3).** *3 lecture hours per week.*

This course will attempt to give the student a better understanding of the state. The physical regions, climate and weather patterns, major landforms will be analyzed. Population distribution, changing trends in the fields of agriculture, environmental issues, and governmental policies will be emphasized.

**4 Economic Geography (3).** *3 lecture hours per week.*

Investigation and description of the basic resources in different parts of the world. An attempt will be made to evaluate the effects of different cultural and physical environments upon the utilization of these resources. Emphasis will be on the industrialized regions of the world and the interrelationship of urban growth and economic development.

**5 World Regional Geography (3).** *3 lecture hours per week.*

This course introduces the student to the basic geographic regions of the entire world. Physical features of each region will be analyzed, such as climate, landforms, and vegetation. Population growth, historical influences, and political/economic problems of selected countries will be emphasized. Students will learn geographical locations of important features such as, rivers, mountain ranges, countries, states, and major cities. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

## 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. Prerequisite: Elementary chemistry and elementary geometry are highly recommended. 3 lecture and one 3-hour lab period per week.*

An introduction to the nature and structure of the materials composing the earth and of the various processes which shape the earth's surface.

**1b Historical Geology (4).** *Prerequisite: Geology 1a or Geology 10 are recommended. 3 lecture and one 3-hour lab period per week.*

Geological history of the earth and the evolution of its animal and plant inhabitants.

**10 Survey of Geology (3).** *Not open to students who have taken or are taking Geology 1a. 2 lecture, one recitation and 2 lab hours per week.*

Basic principles of igneous, sedimentary and metamorphic geology. Lectures on rocks, minerals and the origin of the earth, continents and mountains. This course meets the general education requirements for physical science including the lab science requirement at many colleges and universities. Starting in 1976-77 the entire lecture portion of this course is available as an individualized, self-paced, slide-tape presentation in the Media-Learning Center.

**15 Urban Environmental Geology (3).** *Prerequisite: Geology 1a or 10 recommended. 2 lecture hours and 3 all day field trips by arrangement.*

Slide-illustrated lectures and field trips are used in a study of Geologic hazards in California and especially

in the San Francisco Bay Area. The course stresses earthquake and landslide hazards with less emphasis placed on volcanic hazards, sea wave hazards, dam failure hazards, bay pollution and oil spills.

**19 Fundamentals of Photogrammetry (3).** 3 hrs per week.

Elements of photogrammetric optics; aerial cameras and accessories, flight planning; principles of radial-line plotting and planimetric mapping; stereoscopy and parallax; mosaics, stereoscopic plotting instruments; photo interpretation.

## GERMAN

**1 Elementary German (5).** 5 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).** Prerequisite: German 1 with a passing grade or assignment by the English-Foreign Language Division. 5 class hours per week.

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).** Prerequisites: German 2 with a passing grade or assignment by the English-Foreign Language Division. 5 class hours per week.

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.

**4 Advanced Intermediate German (3).** Prerequisite: German 3 with a passing grade or assignment by the English-Foreign Language Division. 3 class hours per week.

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.

**100a Introduction to Oral German (2).** Credit/no credit. 3 hours per week.

Practical course in the German language approached

by way of conversation. Intensive drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100b Intermediate Oral German (2).** Credit/no credit. Prerequisite: German 100a. 3 hours per week.

Further drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100c Advanced Intermediate Oral German (2).** Credit/no credit. Prerequisite: German 100b. 3 hours per week.

More advanced drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100d Advanced Oral German (2).** Credit/no credit. Prerequisite: German 100c. 3 hours per week.

Further advanced drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

## GUIDANCE

**1 Introduction to College (1).** 2 hours per week (8 weeks or 16 hours per semester.)

The new student is helped to know and understand Cañada College so that he/she might make best use of its resources and activities. A variety of techniques are used for self-appraisal so that the student can make decisions concerning future educational and vocational plans.

**3 Occupational Planning (1).** 2 hours per week (8 weeks or 16 hours per semester.)

Vocational interest tests, various self-appraisal techniques and discussions give the student insights into his/her abilities, interests, and personality. Occupational trends and ways of learning more about specific occupations will be explored.

**4 Special Interest Discussion Groups (1).** 2 hours per week (8 weeks or 16 hours per semester.)

The student is offered an opportunity to explore and

evaluate his/her personal values, goals, and expectations as they relate to this social and cultural environment. Any group of students with a common concern may meet under the leadership of a counselor to discuss and explore these interests. One section of Guidance 4 is designated as training for peer counseling.

**5 Self-Awareness (1).** *Credit/no credit.*

Small groups of students (about 10 members) engage in self-exploration through sharing and interaction with each other. The process will be facilitated by exercises and modeling by responsible and ethical leaders. This is not group psychotherapy. It is designed to promote personal growth through self-awareness.

**10 College Awareness (2).** *2 hours per week.*

Although the class is intended for students in special programs and emphasizes their special needs, all students are welcome to participate. The class deals more thoroughly with topics in Guidance 1. Sections are set up for the Student Development Program.

## HEALTH EDUCATION

**1 Human Heredity and Birth Defects (1).** *2 hours per week for 8 weeks.*

Survey of the principles and mechanisms of human heredity, sex determination, embryonic development, fetal malformations both genetic and environmental origin.

**2 Reproduction and Sexuality.**

See Biology 39.

**3 Drugs and Alcohol (1).** *2 hours per week for 8 weeks.*

Survey of the societal and personal health problems involved in the use of alcohol and drugs. Included are physiological and psychological aspects of use and abuse.

**4 Nutrition and Physical Fitness (1).** *2 hours per week for 8 weeks.*

Study of the various aspects of good nutrition as they relate to physical fitness. Overweight, underweight, food fads, exercise are topics included

**5 Diseases (1).** *2 hours per week for 8 weeks.*

Discussion of the common infectious and non-infectious diseases which plague man. Topics include: Diabetes, pneumonia, cancer, T.B., emphysema, body defenses against disease, caustive agents of disease and methods of treatment.

**6 Mental Health (1).** *2 hours per week for 8 weeks.*

Study of personality development and emotional health including behavioral aspects, adjustment, stress and problem-solving techniques.

**7 Consumer Health (1).** *2 hours per week for 8 weeks.*

A common-sense guide to the health services of today. Topics will include: selection of appropriate medical services and medical insurance plans, avoidance of "quackery" and frauds in medicine, sensible selection of health care products.

**8 Health Occupations (1).** *2 hours per week for 8 weeks.*

Study of the allied health professions and paramedical technologies. Areas include prerequisites, schooling, job descriptions, licensing and salaries.

**10 First Aid (1).** *2 hours per week for 8 weeks.*

First Aid is the immediate, temporary treatment given in the case of accident or sudden illness before the services of a physician can be secured. This course is required for all students not presenting standard Red Cross certificates. Not required of those who have graduated from a California public high school since 1952.

**11 Nutrition for Young Children (1).** *2 lecture hours per week for 8 weeks.*

This course stresses the understanding of the nutritional requirements of the young child and the effects of inadequate nutrition on growth and development. Current theories of the relationship of nutrition to learning disabilities and disease will also be discussed. Guides to parents and teachers concerning nutritious snacks and activities to use with children will be incorporated.

**12 Safety For Young Children (1).** *2 lecture hours per week for 8 weeks.*

Safety regulations will be reviewed for the particular interest to those planning to work in a preschool setting. Guides to parents and teachers concerning the prevention of accidents will be stressed. Equipment purchasing information and curriculum ideas for teaching safety to young children will be a vital part of the course.

## HISTORY

### **4a History of Western Civilization (3).** 3 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.

### **4b History of Western Civilization (3).** Prerequisite: None. History 4a is recommended. 3 hours per week.

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 (3)** Prerequisite: None. History 4a is recommended. 3 lecture hours per week.

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. (One additional unit optional by arrangement.)

### **5 History of England (3).** 3 lecture hours per week.

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.

### **6 Modern Africa (3).** 3 lecture hours per week.

African culture, African kingdoms, the slave trade, imperialism and the European conquest, the colonial period and independent Africa.

### **8a History of Americas (3).** 3 lecture hours per week.

The history of North and South America, from the times of the pre-Columbian Indian civilizations, through the European conquest, to the ages of the revolutions against the European colonizing powers. History 8a may be used in fulfilling the American Institutions requirement.

### **8b Modern Latin America (3).** 3 lecture hours per week.

The history of Latin America from the time of the emergence of the new American nations with their revolutions for independence to the present. Emphasis will be on Latin America's role today and especially on the problems facing both Latin America and the United States in their relationships. The cultural ties binding Spanish-Speaking people in the U.S. to a larger, hemisphere-wide cultural unity will be stressed. (This course may be used in fulfilling the Ethnic Studies requirement.)

### **9a Far Eastern Civilization and Heritage (3).** 3 lecture hours per week.

A general survey of the historical and cultural development of China, Korea and Japan. The first semester of this two semester course will emphasize the religious, philosophical, and artistic development of these countries within the historical context and how, within these traditions, these countries meet the challenge in the 20th Century. Attention will also be given to the way in which Asian-Americans adjust and identify themselves with their cultural legacy in their new environment. (This course may be used to fulfill the Ethnic Studies requirement.)

### **9b Far Eastern Civilization and Heritage (3).** 3 lecture hours per week.

A historical survey and study of the cultural achievements of China, Japan, and Korea from about the 13th Century to the present. The general concern will be with foreign invasions, influences, and subsequently the intended colonialism of foreign countries. Modern political development and nationalism will also be discussed and an attempt will be made to show their ramifications on contemporary Asian-Americans. The history and experiences of Asian immigrants in America will also be discussed. (This course may be used to fulfill the Ethnic Studies requirement.)

### **13 The Bible As History (3).** 3 lecture hours per week.

Writings of the Old and New Testaments in their historical settings.

### **14 Religion in America (3).** 3 lecture hours per week.

Historical survey of religious thought and activity in this country and its influence upon the development of American civilization. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

### **17a United States History to 1865 (3).** 3 lecture hours per week.

The discovery of the New World and the building

there of a new nation. Places special emphasis, first, on the cultural heritage from England and its modification to meet the needs of dissenting religions, a diversity of national and racial origins, and the impact of the frontier. Stresses the problems involved in the making of a new nation and the spread of political and social democracy during the early 19th Century. Traces the beginnings of a distinctive American culture, the westward thrust of the young republic and the impact of the early industrial revolution. Examines the diverging interests and cultures of the north and south culminating in the Civil War. Relationship of past events and forces to present-day situations will be stressed. History 17a may be used to fulfill American Institutions requirement.

**17b United States History Since 1865 (3).** Prerequisite: None. History 17a is recommended. 3 lecture hours per week.

A century of progress and problems. The short-term and long-range reconstruction of the Union after the Civil War, with special reference to the impact of reconstruction on interracial relations. The stepped-up tempo of industrialization, with its consequences in the areas of bigness in business, labor-management relations, the status of farmers and the problems of the city. The changing role of the United States in foreign affairs with its emergence as a world power-conflicting interests and ideologies among large and small powers in the nuclear age, and the elusive search for world peace. Other urgent problems of our times - the "revolution in manners and morals" since the Second World War, racial relations, the preservation of the environment and the search for a balance between traditional individual freedoms and more broadly shared opportunities. History 17b may be used to fulfill American Institutions requirement.

**22 California History (3).** 3 lecture hours per week.

The values and qualities 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, Mexican, and American periods; (b) the environment; and (c) the institutions and functions of state and local politics. Considerable emphasis is given to current newspaper and magazine articles on topics and issues which relate California's past and present. Individual research projects which involve students in the historical process and study beyond the classroom are encouraged. This course may be used to fulfill American Institutions requirement. (This course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**26 20th Century American History (3).** 3 lecture hours per week.

Major economic, political, social, and intellectual developments since the United States emerged as a major power at the turn of the century. Current events and situations will be examined as continuations of happenings and forces from the earlier years of the 20th Century. U.S. foreign policy, minority relations, social and political reform intellectual attitudes and values are examples of some of the topics covered in this course. This course may be used to fulfill the American Institutions requirement. (This course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**28 Women in American History (3).** 3 lecture hours per week.

This course traces the role of women in society from the colonial period to the present, particularly the conflicts between the role prescribed for women and the reality of their lives; in the Puritan community, the differences between the strict Pauline doctrine and the necessary partnership for survival between men and women; during the revolutionary era, the distinction between the vindication of the rights of man and Mary Wollstonecraft's rights of women; in the antebellum south, the belle and the slave woman; in the Victorian period the lady and the mill girl; in the twentieth century, the suffragette and the supermom. As a new field, women's history invites creativity and experimentation. While some of the history of the ordinary woman has been lost, there is still much to be revived, issues to be discussed, and women to be found. This course may be used to fulfill American Institutions requirement.

**30 Historical Genealogy (3).** 3 hours per week.

Designed for those interested in studying their family history in relationship to the movements that have shaped America and to provide them with an understanding of the necessary research methods. This course may be used to fulfill the American Institutions requirement. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**31 History and Government of San Mateo County (3).** 3 lecture hours per week.

Designed to provide the student with (1) an understanding of the social, economic, and political development of San Mateo County, (2) an opportunity to study first-hand the functions and institutions of county and city government, and (3) historical research techniques, using local primary sources of information whenever possible. An original individual

historical research project on some aspect of San Mateo County's past or present is the focal point of this course. (This course may be used to fulfill American Institutions requirement).

**32 Spanish Speaking Peoples in the United States (3).** 3 lecture hours per week.

The entrance, growth and development of the Spanish speaking peoples in the United States. Their specific contributions in the political, economic and historical growth of America will be explored with emphasis on their achievements. (This course may be used to fulfill the Ethnic Studies requirement.)

**33 The Afro-American in U.S. History (3).** Prerequisite: None. History 17a or sophomore standing is strongly recommended. 3 hours per week.

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. (This course may be used to fulfill the Ethnic Studies requirement.)

**37 Special Topics Seminar (1-3).** 1 to 3 lecture hours per week.

Study of important intellectual, economic, or political trends of a particular period in history. The period and subject will vary depending upon interest of instructor and students.

## HOME ECONOMICS

**4 Creative Food Preparation (3).** One 3-hour lecture-demonstration per week.

Menu planning, selection, purchasing and preparation of foods for meals for optimum money management and aesthetic enjoyment. Demonstrations, group preparation, tasting, home practice and laboratory testing, also easy, inexpensive entertaining. Introductory course designed especially for men and women seeking basic understandings and skills.

**5 Careers in Home Economics (1).** One lecture hour per week.

Exploration of areas of employment opportunities in business, government, public service and education. Field trips and discussions with home economists in the field. Review of transfer-school strengths. Professionalism and its responsibilities. May be taken as an Individual Project (Home Economics 49) with consent of instructor.

**6 Consumer in the Market Place (3).** Also Social Science 6. 3 lecture hours per week.

Skills needed by all men and women to be effective in today's complicated marketplace. Pitfalls, frauds, deceptions, choices reviewed. Guidelines for intelligent buymanship in food, housing, furnishings, clothing, autos and insurance are designed to teach money management. Consumer rights and responsibilities. Legislation in force, pending and needed.

**7 Home Management — Personal and Family (2).** 2 lecture hours per week.

Practical "how-to" course in applying management principles to the work of the home. Emphasis on building time and money management skills. Attitudes and decision making will be discussed in relation to goals and development of family members. Open to men and women.

**9 Nutrition (3).** Also Biology 9. 3 lecture hours per week.

Basic knowledge and fundamental concepts as a basis to evaluate current nutritional trends, fads, and diets; metabolic inter-relationships, hunger and malnutrition; vitamins and minerals; obesity; popular weight reduction diets, food processing and getting the most nutrition for your food dollar.

**18 Nutrition in Health and Disease (3).** Also Biology 18. Prerequisite: Home Economics 9 or Biology 9. 3 lecture hours per week.

Nutritional aspect and metabolic biochemical relationships of special medical problems including: mental illness, alcoholic malnutrition, and dental disease, diabetes, and heart disease.

**20a Beginning Sewing (2).** One 3-hour lecture-lab period per week.

Basic sewing techniques will be taught in a step-by-step progression. Emphasis will be on building a good foundation of essential sewing skills. Selection of fabrics and patterns, as well as, correct sizing will be included. This course is designed for students with little or no experience in clothing construction. May be repeated once for credit.

**20b Sew to Fit (2).** One 3-hour lecture-lab period per week.

Several knit tops and one pair of pants will be constructed in class, stressing knits and other fabrics, adjustments for all figure problems and quick tricks with

sewing machines. Understanding fibers and ease in both stretch and wovens is included. May be repeated once for credit.

**21a Creative Sewing (Intermediate) (3).** *One 3-hour lecture-lab period per week.*

This course is designed for the student who can sew but wants more instruction in (a) new and special fabrics, (b) more detailed sewing techniques such as collars and buttonholes, (c) achieving custom fit, and (d) sewing quickly and creatively. This course is recommended for transfer students. It may be repeated once for credit.

**21b Custom Sewing (3).** *Prerequisite: Experience in sewing or Home Economics 20 or 21a. One 3-hour lecture-lab per week.*

The techniques of professional sewing, dressmaking and tailoring made easy, applied to pantsuits, dresses, coats, or suits for a fine finished custom look. Originality of design and creativity encouraged with pattern adaptation and fabric application. Can be repeated once for credit.

**22 Textiles (2-3).** *2 lecture hours per week.*

Fabrics for home furnishings and/or clothing will be reviewed and evaluated with emphasis on selection, use, and care. Each step in the textile process from fiber to fabric, from loom to material, for carpets, draperies, upholstery, and/or clothing. Practical information for career or personal use. The third unit is optional in interiors or clothing by arrangement.

**24 Fashion Analysis and Apparel Selection (2).** *2 lecture hours per week.*

Psychological, sociological and economic aspects of apparel selection and fashion coordination. Principles of creative art and design, guides for purchasing, and motivational research to be examined. Recommended for those interested in personal buying and dress, as well as merchandising, fashion retailing, professional and business students.

**35 Parent Education (3).** *Also Social Science 35. Prerequisite: Completion of or concurrent enrollment in Psychology 1a. 3 lecture hours per week.*

A realistic approach to parent education with the end goal being more "positive parenting." Implications for rearing children will not be limited to a particular age, but developmental issues for all children will serve as the base. Different parenting techniques will be examined, i.e. permissive vs. the restrictive, as well as a view of various parenting structures (single parent — mother or father, parents in communal settings, multi-racial parents, etc.) Recommended for all parents, prospective parents, and those interested in the issues faced by parents today.

**36 Life Cycle: Families in Crisis (3).** *Also Social Science 36. 3 lecture hours per week.*

Understanding of self and social development which affect readiness for adulthood and family interactions. Developmental concerns from birth to death and changes in the family structure, as well as crisis situations, such as marriage, divorce, suicide, alcoholism, drugs, aging and death.

**37 Sociology of Women (3).** *Also Social Science 37. 3 lecture hours per week.*

Examination of the historical, socio-economic, psychological, social, biological, political, emotional and intellectual factors influencing women and their roles in society. Aim: to increase personal awareness of role change and flexibility.

**39 TV/Communications (3).** *(Evening College) 2 hours per week.*

Students will produce a show on cable TV each week, rotating all work stations: audio, lights, mikes, camera, floor; as well as production, direction and "on camera." Course designed to give teachers, business employees, government service personnel and volunteer community workers background for using TV in careers or for community programming using public access to cable.

**39a-39b Communications/TV (3-3).** *2 lecture hours per week and one 3-hour lab in TV studio.*

Student will be given practice communicating using television (closed and open circuit), audio, mikes, lights and camera, photography, graphics for television, and production. Application to business, home economics, teaching, social service, government work and volunteer work. Individual projects will be selected by student preference. May be repeated for credit.

**40 Your Home and Your Environment (3).** *Also Interior Design 1. 3 lecture hours per week.*

An introductory study relating your environment to living today. Create your own environment through dynamic use of space, color, texture, and light. Emphasis is on balancing aesthetics and mechanics of interior design. Projects for coordinating all interior elements within your individual requirements. Cost and quality analysis. Each student selects a personal project in home planning and furnishing.

**41 Interior Space-Planning (3).** *Also Interior Design 2. 3 lecture hours per week.*

A lecture-laboratory course taking up the manipulation of interior space through the planning, drafting and building of 3-dimensional scale room models. Application of basic design and color principles to the

analysis of space usage. Techniques of organizing design ideas for professional presentation. Both residential and contract projects may be considered.

**42 Color for Interiors (3).** Also *Interior Design 3.* (Evening College) 3 lecture hours per week.

Series of lecture-laboratories covering the application of basic color systems to the visual control of interior space. Practice of design principles which govern the use of color in 3-dimensional composition of objects in space. Relation of color-as-light to color-as-pigment; illustrated with structural materials, paints and finishes, furniture, fabrics, lighting, decorative accessories. Projects in assembling samples of such materials into schemes for residential and commercial units.

**43 Practicum in Interior Design (3).** Also *Interior Design 4.* (Evening College) Prerequisites: *Home Economics 40 and 41* (also *Interior Design 1 and 2*). 3 lecture hours per week.

In-depth study of home furnishings sources; cost and quality comparisons and interior design business practices. Projects specify sources and costing-out. Exploration of career opportunities in these areas. Field trips to sources (wholesale and retail) workrooms and manufacturers.

**44 History of Interiors (3).** Also *Interior Design 6.* 3 lecture hours per week.

Tracing the history of interiors: western man's dwellings and how they were furnished. A resumé of design motifs from neolithic times up to the 20th Century. Following characteristic uses of space, and how cultural attitudes found expression in the furniture and buildings which have shaped our present aesthetic values. Social and economic factors will be illustrated. Special emphasis will be placed on the history of the house itself.

**45 Decorating techniques (3).** Also *Interior Design 7.* 3 lecture hours per week.

The application of the theory of interior design elements and art principles to various products used in interiors such as structural materials, paints and finishes, furniture and fabrics. Lamps, lampshades, headboards, cornices and lambrequins, mirrors, collages, tapestries, supergraphics, screens, area rugs will be made using the arts and techniques of gold and silver leafing, collage, stitchery, appliqué, rug making, feather work, shell composition, painting, glazing, and the art of patina. Projects for residences and/or commercial.

**47 Cooperative Education (1-4).** Credit/no credit.

Students working in interior design, home furnish-

ings, merchandising, fashion home furnishings, fabricating or manufacturing; television cable; fashion merchandising; clothing manufacturing; home management, food and child care employed in individual homes, may enroll for credit and instructional help through supervision.

**61a Stitchery and Quilt Making (2).** 16 weeks, 2 units.

Covers vocabulary, history, and materials of traditional and contemporary design. Techniques include pieced, tied, and applique quilting as well as machine and hand embroidery and painted textiles. Method: Each student will produce a sampler quilt. May be repeated once for credit.

**61b Stitchery and Quilt Making (2).** Prerequisite: *Home Economics 61a* or consent of instructor. 16 weeks, 2 units.

The aim is to produce a quilt of traditional or contemporary design for the student's family. More complicated quilting techniques and artistic use of color and design will be stressed. Method: Individual projects. May be repeated for credit.

**62 World of Stitchery (1).** (Evening College T.V. course)

Sixteen television lessons give the techniques of needlepoint and embroidery for the beginner. Televised closeups enlarge the action for close viewing and easy following. Individuality and originality encouraged, permitting exploration of the new and the old in this ancient yet contemporary art form.

**65 Basic Sewing (2).** One 3-hour lecture-lab period per week.

Emphasis on basic techniques, quick sewing methods and selection of patterns and fabrics. For students with little or no experience in clothing construction. May be repeated once for credit.

**66 Knits and Fit (2).** One 3-hour lecture-lab period per week.

Students will learn how to sew knits with different fibers and different amounts of stretch by making several "tops" and pants or skirt. Neckline variations from one pattern will be part of an experimental approach. Achieving fit and understanding all figure problems will be important. Using a sewing machine to its fullest potential will be included. May be repeated once for credit.

**67 Creative Sewing (2).** One 3-hour lecture-lab period per week.

Creative and experimental sewing experiences with many types of fabrics. Color, line and design, fashion



trends, new ideas in fabric and trims will be emphasized. May be repeated once for credit.

**68 Easy Tailoring and Custom Sewing (2).** (*Evening College*) Prerequisite: Experience or Home Economics 20 or 67.

Easy-to-do professional methods of tailoring and dressmaking will be used to construct suits, coats, pantsuits, dresses and special occasion clothes such as cocktail and evening suits and dresses. Techniques produce fine clothes at a fraction of the cost for ready-mades.

**82 Your Child's World (1).** (*Evening College TV course*)

This series emphasizes practicality and application of theory in connection with infant and toddler. Includes: feeding, art, music, language, discipline and parent needs. Ideas are presented by teachers and parents through discussion and demonstration.

**83 Your Child's World Expanded (1).** (*Evening College TV course*).

Explores in depth the developmental characteristics of children from infancy to nine years. Family life situations are related to communication, neighborhood problems, recreation, the child in the hospital and other subjects. Through panel discussions, parents and professionals share insights in the needs of young children and their families.

**84 Your Child's Growing World (1).** (*Evening College TV course*)

The sociology of early childhood education, exploring how the family, the school and community respond and work as a team to meet special needs. The programs examine child rearing and family patterns of various ethnic groups, learning problems, physical handicaps, emotional and behavioral problems. Presented through panel discussions, role playing and films.

**97 Buying Game (1-2)** (*Evening College TV course*)

Save money, know your rights, become a skilled shopper. This series of 16 one-half hour shows brings to the home TV, 80 experts - five vital topics on each show - giving consumer information and discussion of consumer problems. Areas of consumer information covered will be guides for purchasing, ways to beat inflation, money management, consumer alerts to frauds, consumer rights and response and consumer legislation existing and needed. Students mail assignments to the instructor, no trips to campus required.

## HORTICULTURE

**50 Making Things Grow (2)** Prerequisite: None. Twenty-nine one-half hour TV sessions and two two-hour sessions on campus.

A series of lecture demonstrations, covering that area of floriculture or ornamental horticulture mainly concerned with the starting, culture and care of house plants. While the course is designed to help the novice, the information it contains will be highly instructive as well as educational for the pre-professional as well as the professional.

**100a-100b Home Gardening and Landscaping (3).** 3 hours per week.

Principles of home planting and maintenance, soil preparation, fertilizers, organic matter, mulches, pruning, irrigation, lawn and turf management, plant materials, potting, propagation and pest control. Study visits to home grounds and nurseries. Home flower growing, roses, annuals, fuchsias, camellias, rhododendrons, azaleas, container growing, dwarf citrus, hanging baskets.

## INTERIOR DESIGN

**1 Your Home and Your Environment (3).** Also Home Economics 40. 3 lecture hours per week.

An introductory study relating your environment to living today. Create your own environment through dynamic use of space, color, texture, and light. Emphasis is on balancing aesthetics and mechanics of interior design. Projects for coordinating all interior elements within your individual requirements. Cost and quality analysis. Each student selects a personal project in home planning and furnishing.

**2 Interior Space-Planning (3).** Also Home Economics 41. 3 lecture hours per week.

A lecture-laboratory course taking up the manipulation of interior space through the planning, drafting and building of three-dimensional scale room models. Application of basic design and color principles to the analysis of space usage. Techniques of organizing design ideas for professional presentation. Both residential and contract projects may be considered.

**3 Color for Interiors (3).** Also Home Economics 42. (Evening College) 3 lecture hours per week.

Series of lecture-laboratories covering the application of basic color systems to the visual control of interior space. Practice of design principles which govern the use of color in three-dimensional composition of objects in space. Relation of color-as-light to color-as-pigment; illustrated with structural materials, paints and finishes, furniture, fabrics, lighting, decorative accessories. Projects in assembling samples of such materials into schemes for residential and commercial units.

**4 Practicum in Interior Design (3).** Also Home Economics 43. (Evening College) Prerequisites: Interior Design 1 and 2 (also Home Economics 40 and 41). 3 lecture hours per week.

In-depth study of home furnishings sources; cost and quality comparisons and interior design business practices. Projects specify sources and costing-out. Exploration of career opportunities in these areas. Field trips to sources (wholesale and retail) workrooms and manufacturers.

**5a Display Design (3).** 3 lecture hours per week.

Space-planning and color arrangement for display of all varieties of objects and merchandise. This lecture-laboratory course will cover application of basic design principles and color-control factors to settings, backgrounds and graphics as well as related storage and traffic problems of the commercial interior. Emphasis will be placed on the dramatic potentials of objects. The course will conclude with individual projects worked out in three-dimensional model form.

**6 History of Interiors (3).** Also Home Economics 44. 3 lecture hours per week.

Tracing the history of interiors: western man's dwellings and how they were furnished. A resume of design motifs from neolithic times up to the 20th Century. Following characteristic uses of space, and how cultural attitudes found expression in the furniture and buildings which have shaped our present aesthetic values. Social and economic factors will be illustrated. Special emphasis will be placed on the history of the house itself.

**7 Decorating Techniques (3).** Also Home Economics 45. 3 lecture hours per week.

The application of the theory of interior design elements and art principles to various products used in interiors such as structural materials, paints and finishes, furniture and fabric. Lamps, lampshades,

headboards, cornices and lambrequins, mirrors, collages, tapestries, supergraphics, screens, area rugs will be made using the arts and techniques of gold and silver leafing, collage, stitchery, applique, rug making, feather work, shell composition, painting, glazing, and the art of patina. Projects for residences and/or commercial.

**47 Cooperative Education (1-4).** Credit/no credit.

Supervised field experience.

## JOURNALISM

**1 Introduction to Journalism (3).** 3 lecture hours per week.

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).** Prerequisites: Journalism 1 and enrollment in English 1a. 2 lecture and 2 lab hours per week.

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/herself and his/her 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.

**3a Writing for Magazine Publication (3).** Prerequisite: English Composition, Creative Writing or Journalism 2. 3 lecture hours per week.

Instruction in fourteen different article types ranging from informative through inspirational, analyses, and essay-reviews; plus magazine-length short stories.

**15 Newspaper Production (2).** Prerequisites: Journalism 2 (may be taken simultaneously) and permission of instructor. 4 hours per week.

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.

## LIBRARY SCIENCE

**10 Using Library Resources (1).** *Minimum of 3 laboratory hours per week by arrangement.*

A self-paced course designed to familiarize students with the variety of information resources available in academic libraries. Effective use of library services, and resources such as magazines, pamphlets, reference books, and microfilm materials for writing the term paper is a primary objective of the course.

## MANAGEMENT

**47 Cooperative Education (1-4).** *(Evening College) Credit/no credit. Prerequisite: Enrollment in no less than 8 units, including Cooperative Education, and consent of the instructor.*

Cooperative Education is a course designed to develop a close working relationship between the student, the employer and the College. This is accomplished by having the student work with his employer in establishing objectives related to job performance. The College representative works with both the student and employer in setting up job objectives for the semester. Cooperative Education relates classroom experience with job-oriented practical experience. The net result is better performance on the job and improved academic achievement. Students enrolling in Cooperative Education will be required to attend four three-hour seminars during the semester. Students must attend one of the following sections the first week of registration. Dates for additional seminars will be arranged. For further information, call 364-1212 and ask for the Cooperative Education secretary.

**50 Financial Management (3).** *(Evening College) 3 hours per week.*

Management of assets with emphasis on capital structure, budgeting and control, cost analysis, source and use of funds, and interpretation of financial statements. Accounting 1b may be substituted.

**52 Report Writing (no longer offered) — English 6 "Basic Technical and Report Writing" (3)** *replaces Management 52 as an elective.*

**54 Management Communications (3).** *(Evening College) 3 hours per week.*

Problems in communications in business and industry. Lectures, discussion and oral presentation will cover such matters as motivational bases of communications, listening skills, conference leading, and other written and verbal communication problems.

**55 Dynamics of Group Communication (3).** *(Evening college) 3 hours per week.*

Analysis of communication and group process. practical applications of communications techniques.

**61 Industrial Relations (3).** *(Evening College) 3 hours per week.*

General course giving employer and union policies affecting the labor market. The following will be emphasized: wage systems, living conditions, productivity of the workers, unemployment, development of union organizations and collective bargaining, adjustment of industrial conflicts will be dealt with from the point of view of wage earner, employer and the government.

**62 Public Sector Labor-Management Relations (3).** *3 lecture hours per week.*

To develop an understanding of the process in public employment collective bargaining. Emphasis will be on the background, history, and development of collective bargaining in the private sector in the United States; the development of public employee unionism in the United States; public employee collective bargaining in other states; and the California experience.

**63 Management Planning, Budgeting and Control (3).** *(Evening College) 3 hours per week.*

Planning, budgeting and control for first- and second-line supervisors and managers. Project planning techniques including project definition, work breakdown structure, project goals, scheduling systems (such as Gantt charts, PERT, CPM, and Milestone charts), cost estimating and cost curve displays; initiating action; performance reporting; department budgeting; corrective action techniques.

**64 Collective Negotiations in Public Employment (3).** *3 hours per week.*

A practical consideration of the similarities and differences of collective bargaining between the Public and Private Sectors. Emphasis on existing laws, the mission of public agencies and private industry, the scope of bargaining, strikes, lockouts, work stoppages, emerging developments will be the focus of some discussion.

**65 Business and Industrial Economics (3).** *(Evening College) 3 hours per week.*

Survey of the economic aspects of the American economy. Development of a market society, role of money, public policy and economic matters, income and employment. Econ 1a and 1b may be substituted.

**71 Materials Management (3).** (Evening College) 3 hours per week.

For the student desiring to apply fundamental economic and management principles to the flow of materials in a business enterprise. Emphasis on the integrated nature of purchasing, inventory control, production scheduling, quality control and traffic.

**77 Industrial Engineering Methods (3).** (Evening College) 3 hours per week.

Overall view of manufacturing management. Fundamentals of organization, capital costs and budgets, motion and time study, industrial statistics, operations, research.

**80 Management of Human Resources (3).** (Evening College) 3 hours per week.

Introductory course for line-supervision to develop understanding of the personnel function; selection and placement, wage and salary procedures, training and evaluation.

**82 Employee, Information and Organizational Success (3).** (Evening College) 3 lecture hours per week.

Managerial techniques and skills necessary for effective communication which are a crucial element of success or failure.

**85 Organizational Behavior (3).** (Evening College) 3 hours per week.

Examines group behavior in relation to organization effectiveness. Focuses on factors that improve work group functioning.

**90 Office Management and Procedures (3).** (Evening College) 3 hours per week.

Functions, responsibilities, problems and specific techniques of the office manager.

**91 Sales Management (3).** (Evening College) 3 hours per week.

Sales organizations, sales, merchandising and distributive policy layout of sales territories, selection and training of the sales force, pricing, use of advertising and sales promotion materials. The integration of the points of view of sales and merchandising managers in approaching and solving problems will be considered.

**92 Techniques of Supervision (3).** (Evening College) 3 hours per week.

Designed to improve the student's skill in working with people. Analysis of the objectives and characteristics of good management. Leadership and creativity in supervision. Effective communications.

**93 Leadership in Organization (3).** (Evening College) 3 hours per week.

To introduce managers to the motivational aspects to leadership. To examine how individuals react to different styles of leadership. Students will also examine their own management practices and beliefs and gain insights as to how these might be improved.

**94 Creative Problem Solving (3).** (Evening College) 3 hours per week.

Processes involved in problem-solving and decision-making, with emphasis on the application of these concepts to real job situations.

**95 Management Theory and Practice (3).** (Evening College) Recommended for students who already have a management Certificate. 3 lecture hours per week.

Geared to those currently in management positions, will stress the latest theories, responsibilities and practices of business management. Particular emphasis on student-teacher and student-guest interaction and discussion. Specific content covers such topics as management performance and challenges, managing a business and developing and implementing management strategies.

**96 Organization for Management (3).** (Evening College) 3 hours per week.

Basic course describing the development of scientific management in modern business. Current trends in management, staffing, planning and controlling.

**98 Introduction to Business Management (3).** (Evening College) 3 hours per week.

Business principles and practices, problems and procedures. (Should be taken first for Business Management Certificate.)

**104 Introduction to Supermarketing (3).** (Evening College) 3 hours per week.

Introduction to supermarket organization and management: history, future and present trends.

**105 Supermarket Operations (3).** (Evening College) 3 hours per week.

Basic economic organizational and operating principles of food industry. Historical development, role of trade groups, departmental operations, food industry issues, scheduling, security, sanitation, cash control, supply control, customer service.

**106a Retail Food Merchandising Principles (3).** 3 lecture hours per week.

This course covers food store company strategy.

sources of supply, large-scale buying, pricing advertising, promotion and display, attaining profit objectives, governmental controls on food and future trends of food merchandising.

**106b Retail Food Merchandising Practices (3).** *Prerequisite: Management 106a. 3 lecture hours per week.*

Starting with the realities of store site selection, the course deals with store layout, strategy of selling products by brands; specific merchandising methods in high profit departments with easily perishable product (frozen foods, meats, produce, dairy, and self-service deli); and specific use of advertising and promotion media.

**107 Communications in the Food Marketing (3)** *Prerequisite: None. Three lecture hours per week.*

Definition and study of communication weaknesses and gaps at various levels of the food industry. Problem areas covered: Chain and independent grocery buying; headquarters-to-store-level relations; the computer as aid to communication; bulletins and flyers; buying-office forms; sales organizers and brochures; review presentations; and broker-principal communications.

**110 Public Services (3).** *(Evening College) 3 hours per week.*

Designed to give the student a basic understanding of the many public agencies and the services they offer for the general welfare of society. The philosophy of the many types of public services needed in today's society and the employment opportunities for the future will be explored.

**111 Public Administration Management (3).** *(Evening College) 3 hours per week.*

Designed to give the student a basic understanding of principles and concepts underlying the generic field of public administration in federal, state and local governments — line-staff, span of control, responsibility, accountability.

**120 Building Contracting (3).** *(Evening College) 3 hours per week.*

Broad study of the contracting field with emphasis in areas such as Contractors License Law, Mechanic's Lien Law, Workman's Compensation and Employment Regulations, Uniform Building Code, State Housing Act, and contracts and estimating principles.

**Occupational Safety and Health Courses (See under OSHA)**

## MATHEMATICS

Any student enrolled in a mathematics class may enroll in a mathematics laboratory.

A normal sequence of mathematics courses at Cañada College is 11, 19 or 20, 12, 21, 28 or 29, 30, 31, 32, 33. 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/she would normally be eligible.

In general, eligibility of an incoming freshman for a mathematics course is determined by an evaluation of his/her transcript and scores on the placement tests.

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 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.

**5 Pre-Algebra (2).** *2 class hours per week.*

Review of the fundamental processes in arithmetic; reading mathematical notation; translating words into symbols; properties of the real number system.

**10 Cultural Impact of Mathematics (3).** *Prerequisite: Math 11; Math 12 recommended. 3 class hours per week.*

The place of mathematics in human life and its influence on the development of Western Civilization. The role of mathematics in a number of broad areas.

**11 Elementary Algebra (5).** *5 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.

**11a-11b Elementary Algebra (3-3).** *Prerequisite: 11a-None; 11b-Mathematics 11a. 3 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).** Prerequisite: Mathematics 11 with a grade of C or better, or two semesters of high school Algebra with grades of C or better. 5 class hours per week.

A study of the properties of plane and solid figures, using formal logic and the real number system. Some non-Euclidean, projective and topological elements are included. Satisfactory completion of this course will fulfill in part the mathematics entrance requirements of the universities. (Usually offered Spring Semester only.)

**13 Elementary Finite Mathematics (3).** Prerequisite: Math 19 or 20 or equivalent. 3 lecture hours per week.

Introduction to finite mathematics with attention to set theory, counting theory, probability, systems of equations, vector and matrix theory, inequalities and linear programming.

**16 Basic Concepts of Mathematics (3).** 3 class hours per week.

General education course which includes the development of the real number system, discussions of sets, logic, axiomatics, systems of numeration, history and development of arithmetic, arithmetic processes and other pertinent topics. Meets requirements of California Administration code for elementary school credential and/or Liberal Studies credential (Multiple subject).

**17 Introduction to Symbolic Logic (3).** Also Philosophy 12. Prerequisite: English 1a or consent of instructor. 3 hours lecture/self-study per week.

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, Gödel's incompleteness theorem, and the impact of each on the development of 20th Century logic, will be introduced.

**18 Introduction to Computer Programming (3).** Prerequisite: Mathematics 11 with grade of C or better; or two semesters of high school algebra with grades of C or better. (Some typing skill is recommended but not required.) 3 class hours per week.

Basic principles of computer programming including elementary flow-charting techniques; elements of programming coding in BASIC. Students will write and test computer programs coded in BASIC using "hands-on" time-share terminals.

**19 Intermediate Algebra (5).** Prerequisite: Mathematics 11 with grade of C or better, or 2 semesters of high school mathematics with grades of C or better. 5 class hours per week.

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.

**20 Intermediate Algebra (3).** Prerequisite: Mathematics 11 with grade of B or better, or 2 semesters of high school mathematics with grades of B or better. 3 class hours per week.

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).** Prerequisites: Mathematics 12 and 19 or 20 (or equivalent) with a grade of C or better; or six semesters of high school mathematics with grades of C or better. 3 class hours per week.

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.

**22 Elementary Probability and Statistics (3).** Prerequisite: Math 20 or equivalent with grade C or better, or high school preparation including 1½ years of Algebra with grade of C or better. 3 lecture hours per week.

Treatment of use/misuse of data, measures of central tendency and dispersion, probability, sampling distributions, statistical inference, regression and correlation, contingency tables, time series analysis, index numbers.

**23a-23b Applied Analytic Geometry and Calculus (5-5).** Prerequisite for 23a – High School preparation including two years of algebra, and one year of geometry with grades of B or better or Mathematics 20 or Mathematics 19. Prerequisite for 23b – Mathematics 23a with a grade of C or better. 5 class hours per week.

A two semester sequence that will provide the students of business, social sciences, technology and life sciences with a working knowledge of basic techniques of both differential and integral calculus. Concepts essential to that aim will be chosen in analytic geometry, limits, differentiation, integration, extrema, partial derivatives and in other selected topics. This sequence of courses may not be substituted for the Mathematics 30 sequence for mathematics, physics or engineering majors. However, it is suitable for students majoring technical engineering.

**25 Fortran Programming with Introduction to Numerical and Statistical Methods (3).** Prerequisites: Mathematics 28 or 29 with grade of C or better, or Mathematics 23b with grade of 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. 2 lecture and 3 lab hours per week.

FORTRAN programming; numerical methods applicable to modern electronic computers including approximation of roots, solution of systems of equations, Newton's method, descriptive statistics, matrix manipulations and simulation through the use of random numbers. Students write and test a variety of computer programs chosen from the above topics.

**Please Note: Mathematics 28 through Mathematics 32 are presently being considered for change. Check with your counselor for latest information.**

**28 College Algebra (3).** 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 grade of C or better. 3 class hours per week.

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).** 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. 5 class hours per week.

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.

**30 Elements of Analytical Geometry and Calculus (5).** Prerequisite: Mathematics 28 or 29 with a grade of

C or better; or Mathematics 19 or Mathematics 20 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. 5 class hours per week.

Basic concepts of calculus. Includes plane analytic geometry, differentiation, integration, differentials and anti-derivative; formulas; application.

**31-32 Calculus (5-5).** 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 two courses if he continues to earn grades of C or better. 5 class hours per week for Mathematics 31 and 4 class hours per week for Mathematics 32.

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).** Prerequisite: Math 33 (or equivalent) with grade C or better. When approved by the instructor, may be taken concurrently with Math 32. 3 class hours per week.

Differential equations of first, second and higher order; simultaneous, linear, homogeneous equations; solutions by power series; numerical methods, Fourier series, Laplace transforms, and applications. Offered if sufficient enrollment.

**35 Linear Algebra (3).** Prerequisite: Math 31. 3 class hours per week.

Vectors and matrices applied to linear equations and linear transformations, real and inner product spaces.

**49 Individual Projects (1-2).** Prerequisites: Mathematics 30 or equivalent; permission of the instructor. Hours by arrangement.

Directed individual study of a suitable topic in mathematics, or construction of a model useful in the study or teaching of mathematics.

**51 Slide Rule and Metric System (½-1½).** Credit/no credit. Each portion is a four-week session of 2 lecture hours per week.

Study of the development and the theory of the slide rule. The slide rule portion is divided into two parts: (a) scientific notation, exponents, estimation, ratio and proportions and calculations using the C,D,CI,K,A,B, scales. (b) the S,T,ST, and LL scales with applications. The third portion of the course is the metric system, comparison of the metric and the English systems and applications.

**55 Basic Mathematics for Environmental Technologist (2).** (Evening College)

Fundamental examination of mathematics operations for fresh and waste water training operators.

## METEOROLOGY

**1 Elementary Meteorology (3).** 3 lecture hours per week.

Basic course including physical phenomena associated with weather analysis and prediction. This course meets the general education requirements for physical science at many colleges and universities.

## MICROBIOLOGY

**1 General (5).** Prerequisites: One semester of college chemistry and either Biology 1, 3, Botany 1 or Zoology 1. Not open to first semester freshmen. 3 lecture hours and 6 lab hours per week.

Morphology and physiology of micro-organisms with emphasis on bacteria. Laboratory exercises include media making, isolation, and some of the standard methods employed in water and milk analysis.

## 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).** Prerequisite: Some pianistic ability desirable. 2 hours per week.

Music notation, keys, key signatures, intervals, sight reading and ear training.

**2a-2b Advanced Musicianship (2-2).** Prerequisites: 2a - Music 1 or its equivalent; 2b-2a. 2 hours per week.

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).** Prerequisites: Music concentration, usually taken concurrently with Music 1, 2a. Some piano ability is essential. Music 4a is a prerequisite for Music 4b. 3 hours per week.

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).** Prerequisite: Music 4a-4b. 3 class hours per week.

Deals with chords of seventh and ninth, altered chords and modulations, and arranging for various vocal and instrumental groups, and original composition.

**6 (x) Music Appreciation and Survey (3).** 3 lecture and 1 lab hour per week.

Music literature and history with emphasis on the understanding and appreciation of the art. A text, illustrated lectures and directed listening constitute the procedure of the course. One hour per week directed listening in the library is required. 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 (x) Fundamentals of Music (3).** 3 lecture hours per week.

Basic musical skills-singing, ear training, reading music notation, 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. Suggested for the elementary classroom teacher and the amateur musician.

**11a-11b-11c-11d (x) Piano (1-1-1-1).** Prerequisite: Consent of instructor. 3 hours per week.

A course in applied music with stress on technical and interpretive skills. Individual attention and advancement. Grades will be determined by jury audition.

**12a-12b-12c-12d Advanced Piano (1-1-1-1).** Prerequisite to each semester will be successful completion of jury examination. 3 class plus 5 studio hours per week.



Advanced problems of performance. Literature covered and specific requirements may be obtained from the Fine Arts Division office. This course is a parallel course to the applied music major study at California state colleges.

**16 Accompanying (1).** Prerequisite: *Advanced ability.* 3 class hours per week.

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 (1-1-1-1).** (Evening College). Prerequisite: *Concurrent enrollment in Music 22 or Music 23, or consent of instructor.* 3 lab hours per week.

Techniques of playing the various percussion instruments, including mallet instruments, with class instruction, individual instruction and ensemble participation.

**20 Composition (2-3).** Prerequisite: *Music 4A, Harmony, or consent of instructor.* 2 lecture and 1 lab hour per week.

Study of composition through analysis and original writing. Lab Performance of works in various media.

**22a-22b-22c-22d (x) Orchestra (2-2-2-2).** Prerequisite: *Consent of instructor; open to all students of the College.* 5 hours per week.

Standard chamber and symphonic literature.

**23a-23b-23c-23d (x) Symphonic Band (2-2-2-2).** Prerequisite: *Consent of instructor; open to all students of the College.* 5 hours per week.

Study and performance of music for concert band. Performance is required.

**24a-24b-24c-24d (x) Study of Brass Instruments (1-1-1-1).** Prerequisites: *Concurrent enrollment in Music 22 or Music 23, or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class hours per week.

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 (x) Study of Woodwind Instruments (1-1-1-1).** Prerequisites: *Concurrent enrollment in Music 22 or Music 23, or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class hours per week.

Techniques of playing the instrument of the student's

choice, with individual instruction. Grades will be determined by jury audition.

**26a-26b-26c-26d (x) Study of String Instruments (1-1-1-1).** Prerequisites: *Concurrent enrollment in Music 22 or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class hours per week.

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 (x) (B-S-W) Instrumental Ensemble (1-1-1-1).** Prerequisite: *Adequate performing ability to secure consent of the instructor.* 3 hours per week.

The letters B, S, and W indicate Brass, String and Woodwind. Performance is required.

**28a-28b-28c-28d Advanced Study of Brass Instruments (1-1-1-1).** Prerequisites: *Prerequisite to each semester will be successful completion of jury examination; concurrent enrollment in Music 22 or 23 or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class plus 5 studio hours per week.

Advanced problems of performance. Literature covered and specific requirements may be obtained from the Fine Arts Division office. This course is a parallel course to the applied music major study at California state colleges.

**29a-29b-29c-29d Advanced Study of Woodwind Instruments (1-1-1-1).** Prerequisites: *Prerequisite to each semester will be successful completion of jury examination; concurrent enrollment in Music 22 or 23 or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class plus 5 studio hours per week.

Advanced problems of performance. Literature covered and specific requirements may be obtained from the Fine Arts Division office. This course is a parallel course to the applied music major study at California state colleges.

**30a-30b-30c-30d Advanced Study of String Instruments (1-1-1-1).** Prerequisites: *Prerequisite to each semester will be successful completion of jury examination; concurrent enrollment in Music 22 or consent of instructor; concurrent enrollment in Music 99 (Studio Hours) is required.* 3 class plus 5 studio hours per week.

Advanced problems of performance. Literature covered and specific requirements may be obtained from the Fine Arts Division office. This course is a parallel course to the applied music major study at California state colleges.

**31a-31b-31c-31d Stage Band Lab (1/2-1/2-1/2-1/2).** Prerequisite: Consent of instructor. 1 1/2 lab hours per week. Rehearsal and study of standard literature for stage band and dance band. Stresses ensemble and improvisation as well as styles. May be repeated for credit.

**32 Jazz Improvisation (1).** Prerequisite: Ability to play an instrument and read music; concurrent enrollment in Music 31 or consent of instructor. 1/2 lecture and 1 1/2 lab hours per week.

Performance and analysis of jazz improvisation.

**33a-33b-33c-33d (x) A Cappella Choir (2-2-2-2).** Prerequisite: Consent of the instructor. 5 hours per week.

Study and performance of choral literature for accompanied and unaccompanied choir. Performance is required.

**34a-34b-34c-34d (x) College Chorale (1-1-1-1).** Prerequisites: Consent of instructor after audition, concurrent registration in Music 33. 3 hours per week.

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 (1-1-1-1).** (Evening College) Prerequisite: Consent of the director. Open especially to adult singers with choral experience. 3 hours per week.

Rehearsal and performance of material from oratorio and other large choral literature for public performance. Performance is part of the course.

**36a-36b-36c-36c (x) Solo Voice (1-1-1-1).** Prerequisite: Concurrent enrollment in Music 33 or 34 or consent of instructor. 3 class hours per week plus 5 studio hours per week.

Vocal problems analyzed and corrected through exercises and songs. Class sessions with private help by jury audition.

**37a-37b-37c-37d Advanced Solo Voice (1-1-1-1).** Prerequisites: Prerequisite to each semester will be successful completion of jury examination; concurrent enrollment in Music 33 or 34 or consent of instructor. 3 class plus 5 studio hours per week.

Advanced problems of performance. Literature covered and specific requirements may be obtained from the Fine Arts Division office. This course is a parallel course to the applied music major study at California state colleges.

**40 Musical Theatre (1-3).** Spring semester. Prerequisite: Consent of instructor after audition. One class hour per week per unit.

Training in chorus, instrumental and solo parts of staged musical shows or opera. Units depend on the hours the part demands. May be repeated for credit.

**41 Music Recitals (1/2).** One hour per week.

Open to all students. A listening course to acquaint students with musical literature as performed by professional musicians and advanced students in the area. Music majors are required to complete four semesters.

**42 Conducting — Choral Conductor's Workshop (1).** (Evening College) Prerequisite: Conducting experience or consent of the instructor. 3 lecture hours per week for 6 weeks.

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.

**43a-43b (x) Study of Classical Guitar: Elementary and Advanced (1-1).** (Evening & Saturday College) Prerequisites: Concurrent enrollment in Music 99 and possession of a guitar. 3 class hours per week plus lab.

Techniques of playing the guitar. Group and individual attention. May be repeated for credit.

**44 (x) Fine Arts for Children (3).** Also Art 44. (Evening College) 3 lecture hours per week.

For parents and teacher aides. 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.

**99a Studio Hours (0).** Hours by arrangement.

Supervised studio hours in connection with Music 24, 25, 26, 28, 29, 30.

**99b Studio Hours (0).** Hours by arrangement.

Supervised studio hours in connection with Music 11.

## NURSING

**62 X-Ray (3).** Prerequisite: Anatomy 2a with a grade of "C" or better. 3 hours of lecture and discussion per week.

Knowledge, skills and terminology of nursing proce-

dures for the X-ray technologist. Patient care, ethics, and radiological techniques are stressed.

## OCCUPATIONAL SAFETY AND HEALTH (OSHA)

**10 Introduction to Occupational Safety and Health (3).** (*Evening College*) 3 hours per week.

Introduction to principles of occupational safety and health with emphasis on requirements of federal and state Occupational Safety and Health Acts (OSHA and Cal-OSHA). Includes a survey of general techniques of safety management.

**11 Safety and Health Standards, Codes and Regulations (3).** (*Evening College*) 3 lecture hours per week.

Review of the important federal and state occupational safety and health standards and codes with particular emphasis on application of state codes to typical work situations.

**12 Physical Hazards Control I (3).** (*Evening College*) Prerequisite: Satisfactory completion of Management 75 or consent of instructor. 3 lecture hours per week.

Examination of physical hazards in the work environment and methods of control.

**13 Physical Hazards Control II (3).** (*Evening College*) Prerequisite: OSHA 12. 3 lecture hours per week.

Examination of the control of physical hazards in the work environment.

**14 Safety Program Management (3).** (*Evening College*) Prerequisite: OSHA 11, 12, 13 or consent of instructor. 3 lecture hours per week.

Designed to acquaint the student with the common element of a modern safety program.

**15 Construction Safety (3).** 3 lecture hours per week.

A study of Federal and State safety and health standards and regulations applicable to the construction industry. Emphasis will be on recognizing, avoiding, and preventing hazards.

## OCEANOGRAPHY

**10 Oceanography (3).** 3 class hours per week.

Chemical and biological history of the oceans. Currents, waves, tides and coastal processes. Origin and evolution of the oceans and ocean basins with em-

phasis on recent discoveries in continental drift and sea floor spreading.

## PHILOSOPHY

**6 Introduction to Philosophy (3).** 3 lecture hours per week.

A study of ideas and issues which have concerned with traditional philosophic minds. Students are directed toward the process of doing philosophy as a means to understanding it. A critical evaluation of selected philosophical topics; values, political ideologies, nature of human being, science and religion.

**7 Contemporary Philosophy (3).** 3 lecture hours per week.

Emphasis is on acquaintance with contemporary trends in philosophy and their impact on social, political, economic and religious movements. Various schools that might be chosen for presentation include: Idealism, Existentialism, Marxism, Maoism, Christian Philosophy, Logical Positivism, Pragmatism, Utilitarianism, Contemporary Analysis.

**11 Introduction to Logic (3).** 3 lecture hours per week.

A critical study of the conditions of clear statements; procedures and criteria for evaluating arguments; questions of the adequacy and relevance of statements used to support conclusions. Informal fallacies, syllogism and symbolic logic will be part of the inquiry.

**12 Introduction to Symbolic Logic (3).** Also Math. 17 Prerequisite: English 1a or consent of instructor. 3 hours lecture/self-study per week.

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.

**20 History of Philosophy — Ancient and Medieval Philosophy (3).** 3 lecture hours per week.

The history of Western Philosophy from ancient to early modern. Selections from representatives of philosophers and/or schools of philosophy during this

period will be examined. Pre-Socratics; philosophy of the Roman world; Christian and early rationalist thought are some to be studied. The concern will be with an analysis of various philosophers' attempt during this period to resolve certain fundamental metaphysical, epistemological and ethical questions.

**21 History of Philosophy — Modern and Early Contemporary Philosophy (3).** 3 lecture hours per week.

Western philosophy from late 17th Century to Early 20th Century. Selections from various philosophers and/or schools of philosophy will be chosen for examination and analysis. The concern will be their epistemological, metaphysical and ethical systems that developed and advanced during this period. Philosophies of Spinoza, Leibniz, the British Empiricists, Kant, Hegel and other idealists will be studied. Other schools of philosophy, early Existentialism, Marxism and Logical Positivism will also be considered.

**23 Introduction to Ethics (3).** 3 lecture hours per week.

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 "Nicomachean 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 society; the communistic and libertarian views of the ideal society.

**24 Introduction to Religion: Religion of the World (3).** 3 lecture hours per week.

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. The course gives equal emphasis to the history and anthropology of religion, the western religions, and the eastern religions.

**25 Western Religious Philosophy (3).** 3 lecture hours per week.

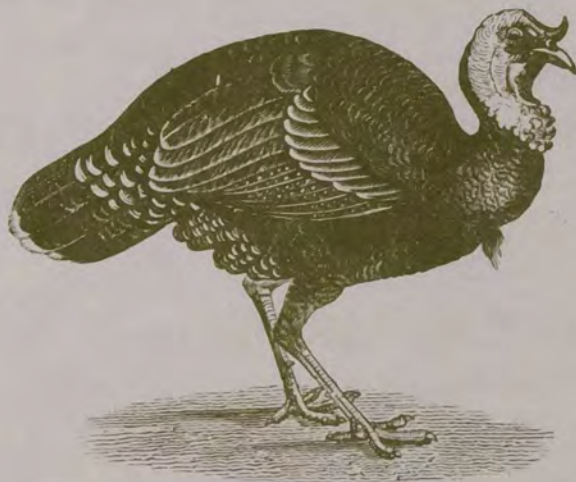
Investigation of the questions arising in the western Judaeo-Christian tradition; the existence of God, including appeals to rational arguments, revelation, miracles, authority, faith, mystical experience; the nature of God and the problem of evil; the relationship between religion and moral convictions, and between religion and science; the problem of immortality. A substantial amount of time will be spent on Hebraic and Christian theology including the teachings of Moses, Isaiah, Paul, and John the Evangelist.

**27 Introduction to Aesthetics (3).** 3 lecture hours per week.

This course will investigate philosophical questions related to an understanding of the arts: the creation of a work of art, criteria for judgment and evaluation, historical-cultural context, the nature of "art" and "beauty," the relationship of artist, work and audience, the question of meaning, etc. Attempts will be made to correlate the course to offerings current in the Fine Arts and Literature Divisions.

**28 Introduction to the Philosophy of Science (3).** *Prerequisite: One course in philosophy and/or science or mathematics, or permission of instructor.* 3 lecture hours per week.

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 and either biology or



psychology. Possible topics include the Copernican Revolution, from Kepler to Newton, Einstein's Relativity Theory, and Quantum Mechanics, from Freud to Existential Psychology, logical structure of the social sciences, etc.

**35 Asian Philosophy (3).** *Prerequisite: Philosophy 6, 24, or History 9a or 9b strongly recommended. 3 lecture hours per week.*

Introductory course in the philosophical development in the major Asian countries — China, India and Japan. The general concern will be given on the philosophical development of these countries rather than religious evolution. The course is not merely to provide a survey of the philosophical systems of the past. Special attention will be given to the 20th Century Asian thinkers and how their ideas shape the Asian minds inside and outside of Asia.

**38 Advanced Seminar in Philosophy (3).** *Prerequisite: Two other courses in philosophy. 3 lecture hours per week.*

Designed to provide an opportunity for philosophy majors and others who meet requirements to pursue some more advanced problems in philosophy (especially in Epistemology).

**48 Special Topics (1-3).** *1 to 3 lecture hours per week.*

A course on topics of contemporary interest designed to provide a means for discussing changing knowledge and important issues in philosophy. Specific subject matter will vary from semester to semester and is announced in advance.

## PHYSICAL EDUCATION

(Men, Women, Coed)

A student may elect more than one Physical Education general service class or repeat a class.

Enrollment in varsity athletics satisfies the Physical Education requirement for the semester.

The Physical Education courses listed below are for men or women or are coeducational as shown in parentheses following the unit value of the course (M, W, C).

### 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.

**3a Varsity Baseball (2) (M).** *Prerequisite: Permission of the coach.*

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.

**3b Varsity Conditioning (1) (M).** *Must be taken concurrently with 3a.*

**4a Varsity Basketball (2) (M).** *Prerequisite: Permission of the coach.*

Intercollegiate varsity basketball competition in the Camino Norte Conference and participation in regional tournaments. Daily practices October 15 to March 15.

**4b Varsity Conditioning (1) (M).** *Must be taken concurrently with 4a.*

**5a Varsity Cross Country (2). (C).** *Prerequisite: Permission of the coach.*

Intercollegiate competition in the Camino Norte Conference and participation in dual meets, triangulars, invitationals, league meet, and Northern California and State Championships as qualified. Daily practice, September to December.

**5b Varsity Conditioning (1) (C).** *Must be taken concurrently with 5a.*

**6a Varsity Golf (2) (C).** *Prerequisite: Permission of the coach.*

Intercollegiate competition in the Camino Norte Conference and participation in dual matches, invitationals and the conference championships. Team members will also participate in the Northern California and State Championships as qualified. Daily practices February to May.

**6b Varsity Conditioning (1) (C).** *Must be taken concurrently with 6a.*

**7a Varsity Soccer (2) (M).** *Prerequisite: Permission of the coach.*

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.

**7b Varsity Conditioning (1) (M).** *Must be taken concurrently with 7a.*

**8a Varsity Tennis (2) (C).** 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 practices February to May.

**8b Varsity Conditioning (1) (C).** Must be taken concurrently with 8a.

**9a Varsity Wrestling (2) (M).** Prerequisite: Permission of the coach.

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.

**9b Varsity Conditioning (1) (M).** Must be taken concurrently with 9a.

#### INTRAMURALS

Supervised intramural sports are scheduled throughout the semester, beginning with the second week. Primary hours are from 11 a.m. to 12 noon on Tuesday and Thursdays. Additional intramural hours may be established as needed for play-offs and make-up contests. Students should consult the Intramural Bulletin Board in the Physical Education building for detailed information concerning activities, days and hours, sign-up instructions, rules and procedures.

As students interest determines the need, intramural programs will be conducted in basketball, table tennis, badminton, bicycling, soccer, weight lifting, softball, bowling, volleyball, trampoline, and tennis. Other activities are available on demand. One-half unit of credit is available. See Coed P.E. 75.

#### THEORY COURSES

**20 The Nature and Scope of Physical Education (3) (C).** For major and minor students in Physical Education and Recreation Education. Not an activity class. 3 lecture hours per week.

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.

**22 Issues in Sport (2) (C).** 2 lecture hours per week.

Introduction to selected diverse contemporary issues in American sport. Sample topics would include: amateurism and/or professionalism in sport, racism in sport, women in sport, sport and education, and the economics of sports. This course is recommended for all Physical Education and Recreation Education majors and minors.

#### GENERAL SERVICE COURSES

**30 Adult Fitness (2) (C).** (Evening College) 4 hours per week.

For the adult who desires a course in vigorous activity of a "conditioning" nature. Tests given regularly relating to motor fitness, speed, balance, strength, endurance, flexibility and power. Considerable running activity. Emphasis on development of cardio-respiratory improvement. Several college fitness batteries utilized. Team games and weight conditioning to develop stamina.

**31 Aquatic Fitness (1) (C).** Students must not be beginning swimmers. 2 hours per week.

Highly vigorous activities in conditioning in swimming. Some stroke and development work. Class goal is to swim one mile in a half-hour.

**32 Elementary Archery (1) (C).** 2 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. Also included is the basic understanding of rules, scoring, terminology, and care and selection of arching equipment.

**33 Backpacking (2) (C).** Designed primarily for the student who is a beginning or intermediate backpacker. The advanced backpacker may enroll. 4 hours per week.

Instruction will be given in the science of backpacking and living in the wild. Instruction will also be given in the purchase and care of backpacking equipment. Students will be expected to furnish most of their own equipment. Students will also have to demonstrate that they are physically fit in order to participate. The course will include lectures, labs, and overnight trips.

**34a Elementary Badminton (1) (C).** 2 hours per week.

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.

**34b Intermediate/Advanced Badminton (1) (C).** *Prerequisite: Elementary Badminton or permission of the instructor. 2 hours per week.*

Designed to improve the intermediate and advanced player's skill, knowledge and enjoyment of the game. Emphasis on strategy, tactics, footwork, doubles teamwork and the singles game.

**35 Elementary Baseball (1) (M).** *Not open to Cañada College baseball letterman. 3 hours per week.*

Fundamentals of baseball skills combined with game situations. Emphasis will be placed on individual skills and the associated game rules. A testing program will include material on all skills taught and the playing rules.

**35b Advanced Baseball (2) (M).** *Prerequisite: Elementary baseball or varsity letter in baseball. One lecture and 2 lab hours per week.*

Fundamentals of baseball with emphasis on strategy, officiating, interpretation of the rules, and team play. Designed for the advanced player.

**36a Elementary Basketball (1) (M) (W) (C).** *Prerequisite: Enrollees must be beginners in basketball activity. Students who have participated on high school interscholastic teams will not be admitted. 2 hours per week.*

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.

**36b Advanced Basketball (1) (M) (W) (C).** *Prerequisites: Successful completion of Elementary Basketball with approval of the instructor; participation on high school basketball teams of J.V. or varsity level. 2 hours per week.*

Advanced aspects of team offense and defense. Emphasis will be placed on team play through the medium of round robin schedules and tournaments. Evaluation will be conducted through written and practical examinations on rules and skills taught.

**37 Bicycling (2) (M) (W) (C).** *4 lab hours per week.*

Instruction in the operation of bicycles, safety concepts, rules of the road and participation in cycling programs that involve controlled conditions over diversified terrain. Activities will be geared to the ability of the individual. The testing program will include speed cycling, time trials, endurance tests and maintenance of the bicycle.

**39a Elementary Bowling (1) (C).** *For beginning students in bowling. 2 hours per week.*

Learning opportunities will be provided in the stance, approach, release and roll. A working knowledge of bowling rules, scoring and etiquette. Approximate cost: \$15.00 per semester.

**39b Intermediate/Advanced Bowling (1) (C).** *Prerequisite: Women must have at least 110 average; men, at least 125 average. 2 hours per week.*

Participation in advanced league bowling competition; individual scoring statistics are maintained. Approximate cost: \$20.00 per semester.

**40 Exercise Appreciation (1) (M) (W) (C).** *3 hours per week.*

Basic conditioning course, which presents a lifelong 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 "pushback" the aging processes are primary objectives of the course.

**41 Field Sports (1) (W).** *2 hours per week.*

Class may elect to cover two 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.

**42a Elementary Folk, Square, Tap Dance (1) (C).** *2 hours per week.*

Dance fundamentals and basic skills associated with beginning folk dance activity. Representative dances of many countries are offered. Emphasis on the basic steps and appropriate rhythmical responses.

**43a Elementary Golf (1) (C).** *Prerequisite: only beginning golfers will be enrolled. 2 hours per week.*

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.

**43b Intermediate/Advanced Golf (1) (C).** *Prerequisite: Permission of the instructor. 2 hours per week.*

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.

**44 Gymnastics (1) (C).** *For beginning students in gymnastic activity. 2 hours per week.*

Elementary concepts of gymnastic activities for beginning students; includes trampolining, side horse, long horse, horizontal bar, parallel bars, pyramid building and tumbling.

**45 Elementary Ice Skating (1) (C).** *Prerequisite: Enrollees must be beginners. 2 hours per week.*

Instruction 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 concepts. Conditioning and basic techniques conducive to maximum safety will be offered. The course will be taught off campus. Approximate cost: \$15 per semester.

**46a Elementary Judo (1) (M) (W) (C).** *Prerequisite: Enrollees must be beginners in Judo activity. 2 hours per week.*

Rules, procedures, techniques of falling, unbalancing, throwing, and combinations of techniques as related to physical development. Emphasis on judo as a sport.

**46b Intermediate/Advanced Judo (1) (C).** *Prerequisite: Successful completion of Elementary Judo at Caniada College or permission of the instructor. 2 hours per week.*

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.

**47 Life Saving (1) (C).** *Prerequisites: The ability to swim 440 yards continuously, demonstrating front crawl, side stroke and breast stroke; standing front dive; surface dive to six foot depth and swim two body lengths under water; floating. 2 hours per week.*

Progressive skill development in take-offs, approaches, carries, defensive mechanism, shallow water carries, water safety knowledge and artificial respiration. Red Cross certificate available upon satisfactory completion of the course.

**50a Beginning Modern Dance (1-2) (C).**

Basic modern dance techniques, ballet techniques for proper body alignment, balance, flexibility, and rhythmic coordination. Emphasis on movement technique and combinations.

**50b Beginning/Intermediate Modern Dance (1-2) (C)**

Basic modern dance techniques, ballet techniques for proper body alignment, balance, flexibility, and rhythmic coordination. Emphasis on movement technique and combinations.

**51 Advanced Modern Dance (2) (C).** *Prerequisite: Successful completion of Intermediate and Advanced Modern Dance, or permission of instructor. 4 lab hours per week.*

Synthesis of previous dance experience. Advanced modern technique, group improvisations and reperory experience.

**52 Modern Dance Production (2) (C).** *Prerequisite: One or two semesters of Modern or Jazz and permission of instructor. 4 hours per week.*

Includes both technique and composition. Students have the opportunity to choreograph their own compositions (dances) for performance. The elements of production — music, make-up, costumes, lighting and staging — are included in this semester's work. A final concert, demonstration or studio rehearsal will culminate the semester's work performed by the students.

**53a Beginning Jazz (1) (C).** *2 hours per week.*

Elementary jazz techniques, foot and leg development, isolation of body parts and a rhythmic appreciation of jazz musicians and music.

**53b Beginning/Intermediate Jazz (2) (C).**

Continuation of Beginning Jazz with emphasis on additional techniques and more lengthy jazz combinations.

**54 Rope Activities (1) (M).** *2 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 evaluation procedures are followed. Emphasis is placed on the explanation and development of safety procedures.

**56 Basic Methods and Techniques of Skin and Scuba Diving (2) (C).** *Prerequisite: Student must be able to pass basic swim test. 2 activity hours, 1 lecture hour per week, plus out-of-class assignments.*



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. Emphasis is given to marine ecology problems of the present day, encounter of which can be anticipated as a result of becoming a basic scuba diver.

**56A Skin and Scuba Media Learning Lecture Series (1) (C).** 2 lecture hours per week.

Course is designed to provide students with the opportunity to study the various technical and varied subject matters of skin and scuba. The student will make use of films, film loops, slides, and tape recordings to achieve the aforementioned ends.

**57 Beginning Snow Skiing (1) (C).** 2 hours per week.

Instruction will be given on "shorty" skis, with skis advancing in length as skier advances in skills. Downhill skiing skills such as turns, stopping, traversing and control. No equipment necessary beyond personal clothing. Approximate cost to student: \$130, plus transportation. 3 full weekends on the slopes are a part of the course.

**58a Elementary Soccer (1) (M) (W) (C).** Prerequisite: For beginning students in soccer only. 3 hours per week.

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.

**58b Advanced Soccer (1) (M).** Prerequisite: Successful completion of Elementary Soccer or permission of the instructor. 2 hours per week.

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.

**59 Elementary Social Dance (Ballroom) (1) (C).** 2 hours per week.

Social dance fundamentals and basic steps: waltz, tango, cha cha, samba, rumba, 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.

**60 Elementary Softball (1) (M) (W) (C).** Prerequisite: Enrollees must be beginners in softball play. 2 hours per week.

Fundamentals and play situations of softball. Students participate in game situations and round-robin play. A testing program is included on all rules and skills taught. Regulation "fast-pitch" or "slow pitch" play is included.

**62 Table Tennis (1) (C).** Prerequisite: Enrollees must be beginners. 2 lab hours per week.

Elementary to intermediate techniques in table tennis play. Students will receive instruction in the skills involving all aspects of play, such as strokes, serving, offensive and defensive aspects, and singles and doubles play. Considerable attention will be given to rules, formats and etiquette.

**63a Elementary Tennis (1) (C).** No previous tennis experience necessary. 2 hours per week.

Basic fundamentals of tennis. Instruction on forehand and backhand ground strokes, serve and volley. Rules, scoring system, tennis etiquette and basic tactics of singles and doubles. Some competition included toward the end of the semester. Major emphasis on individual improvement.

**63b Intermediate/Advanced Tennis (1) (C).** 2 hours per week.

Designed for the student with prior tennis experience. All strokes and shots presented, including forehand and backhand groundstrokes, serve, volley, lob and smash. Advanced instruction in singles and doubles play. Individual improvement will be the major emphasis.

**64 Trampoline (1)(C).** 2 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.

**65 Tumbling (1) (C).** 2 hours per week.

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.

**66a Elementary Volleyball (1) (C).** 2 hours per week.

Skills involving the serve, volley, dig, smash and hit taught and practiced. Proper rotation, rules and team play stressed. National Volleyball rules of play strictly enforced. An evaluation program in all skills conducted. Tournament play on a round-robin basis.

**66b Intermediate/Advanced Volleyball (1) (C).** Prerequisite: One semester of college volleyball or instructor's permission. 2 hours per week.

Designed for students wishing more advanced play and skills of volleyball. Includes a quick review of the dig or bump, volley with footwork overhand serve. The spike, block and tumble dig are introduced. All of these skills incorporated into offensive and defensive court play.

**67 Water Polo (1) (M) (W) (C).** Prerequisite: The ability to swim 50 yards using a "head high" crawl stroke, to swim 50 yards using the breast stroke, to tread water for 3 minutes and to tread water for one minute with the hands out of the water. 2 hours per week.

Progressive skill development in picking up a ball in the water, passing, receiving, shooting, dribbling and playing the game of water polo. Knowledge of water polo rules and facets of water safety.

**68 Water Safety Instruction (1) (C).** Prerequisite: Current American Red Cross Senior Life Saving Certificate. 2 hours per week.

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.

**69a Elementary Weight Conditioning (1) (M) (W) (C).** Prerequisite: Enrollees must be beginners in weight conditioning work. 2 hours per week.

Elementary lifts and procedures of weight training. Emphasis on proper form and techniques, safety procedures, and strength values of beginning work in weight lifting. Barbells, dumb-bells, and associated equipment are combined with regular running activity.

**69b Intermediate Advanced Weight Conditioning (1) (M) (W) (C).** Prerequisite: Successful completion of Elementary Weight Conditioning or permission of the instructor. 3 hours per week.

Progressive skills and weight development in various weight conditioning exercises. Opportunities granted to specialize in different areas of the body. Development of individual programs encouraged.

**70 Western Riding (1) (C).** 2 hours per week.

Care, feeding, structure of a horse; care of equipment; basics of western riding — hands, seat, control of animal in ring and trail riding. Approximate cost per semester: \$60.

**71 Elementary Wrestling (1) (M)** Prerequisite: Enrollees must be beginners in wrestling activity. 2 hours per week.

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 applies them in short periods of wrestling.

**72 Yoga (1) (C).** Designed for beginning student in yoga. 2 hours per week.

Course deals with yoga postures and breathing techniques, with emphasis on body control through position awareness.

**73 Adaptive Physical Education (2) (C).** Prerequisite: Restricted to physically limited students. 8 lab hours per week.

A course designed to meet the needs of the physically limited student. Work with weights, various rehabilitative exercises, use of a swimming pool, and games of various sorts will be provided. The course will be tailored as much as possible to meet the individual needs of each student.

**75 Intramurals (1/2) (C).**

A student may earn one-half unit of credit in the intramural program if he or she desires. Activities include basketball, table tennis, badminton, bicycling, jogging, soccer, weight-lifting, softball, bowling, volleyball, tennis, and trampoline. For additional information please refer to the intramural description.

**76 Women's Conditioning (1-3) (C).** 5 lab hours per week.

Course is designed to meet the needs of students efficiently and effectively in the understanding and development of physical fitness. Appropriate tests are offered to identify needs and ability levels; emphasis is placed on activities related to cardio-respiratory endurance, flexibility, balance, agility and strength; students will experience programs in weight conditioning, aerobic exercise, walking, posture improvement, caloric evaluation, nutrition, and weight control; and figure development.

**77 Jogging (1) (C).** 3 laboratory hours per week.

Course is designed to provide men and women with the opportunity to get in shape through jogging.

Course meets three days a week and students will be working in a group situation and individually on improving their basic level of fitness.

**78 Elementary Roller-Skating (1) (C).** 2 lab hours per week.

Course is designed to provide students with instruction in roller-skating. Class is held off campus at a roller-skating rink and meets one afternoon a week for two hours. The cost to the student is approximately \$15.

**80 Fitness Preparation, and Administrative Justice Field Techniques (2) (C).** 3 hours per week.

A course designed to meet the needs for Administrative students in preparing them to pass the field test on fitness standards for job placement. A study of the recent A.J. field techniques in defensive and "come along" skills. Information regarding proper diet and exercise to stay alert physically and mentally for the job-related demands. May be repeated for credit.

**85 Expert Tennis Training (2) (C).** 6 lab hours per week.

Course is designed for men and women of expert tennis ability who wish to develop their tennis skills in daily workouts of 1 1/2 hour duration. Students will be instructed in the fundamentals as needed and put through many drills designed to improve their tennis skills. Conditioning and strategy will also be a major part of this course.

**82a Women's Self-Defense (1 1/2). (W)** 3 hours per week.

Designed for women, to gain knowledge about basic self-defense. Areas covered will be mental preparation, avoidance of areas conducive to assault or rape, striking, kicking, yelling, front and rear grasp releases, and ground tactics. Both nonviolent and violent techniques will be dealt with.

## PHYSICAL SCIENCE

**10 Introduction to the Physical Sciences (3).** 3 hours per week.

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. Stress on conceptual understanding rather than mathematical detail. 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).**

*Prerequisites: Elementary algebra and plane geometry, trigonometry is strongly recommended. Physics 2a is a prerequisite for Physics 2b.* 3 lectures, 1 recitation and one 2-hour lab per week.

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).** *Prerequisite for 4a: Mathematics 30; prerequisite for 4b or 4c: Physics 4a and Mathematics 31.* 3 lecture, 1 recitation and one 2-hour lab period per week.

**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, chemistry and certain other majors a thorough foundation in the fundamentals of physics.

**9 Physics of Sound and Music (3).** *Also Music 9. Prerequisite: None; high school algebra suggested.* 2 lecture and 3 lab hours per week.

Lectures with experimental demonstrations, emphasizing the nature of sound, music and related wave phenomena. A weekly laboratory period studying musical instruments, overtones, resonance and pitch. This course is planned for, but not restricted to, Music majors.

**10 Introduction to Descriptive Physics (3).** 3 lecture hours per week.

Description with experimental demonstrations of the more important phenomena of physics. Designed to show the beauty, simplicity and unity of our conception of the physical world, rather than concentrating on mathematical detail. 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.

**12 Space, Time and Relativity (3).** *Prerequisite: An interest in reading.* 3 lecture hours per week.

A non-mathematical survey of modern physics, with particular emphasis on Einstein's Theories of Relativ-

ity and on Quantum Mechanics, the new theory of the atom. Students will be led to an examination of the interaction of physics with the humanities, focusing on modern novels by Durrell, Pynchon and others. No background in either science or math is required; students should, however, expect to do slightly more reading than in conventional science courses. This course meets the General Education requirements for Physical Science at most colleges and universities.

**62 Radiation Physics (4).** *Prerequisite: High school algebra and geometry; high school science. 4 lecture hours per week.*

An introduction to the basic ideas about matter, energy, electricity, magnetism and electro-magnetic radiation, with emphasis on X-ray phenomena. Applications to the interaction of radiation with matter and X-ray circuits. Particularly appropriate for students pursuing careers as X-ray technologists, but open to everyone interested in radiation physics.



## PHYSIOLOGY

**1 Introductory Physiology (5).** *Prerequisites: One course selected from Biology 1, Anatomy 1, Zoology 1, knowledge of elementary chemistry and physics is recommended. 3 lecture hours and two 3-hour lab periods per week.*

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.

**5 Physiology of Aging (3).** *3 lecture hours per week.*

Survey of physiology of aging as reflected in recognizable changes in the human organism.

## POLITICAL SCIENCE

**1 Introduction to Political Science (3).** *3 lecture-discussion hours per week.*

Examination and comparison of major contemporary political ideologies (varieties of democratic capitalism, democratic socialism, classical conservatism, minority liberation, communism and fascism) in their cultural and economic contexts. Exploration of a major problem of political behavior (for example, citizen participation) and of a major area of public policy-making (for example, United States foreign policy).

**2 Contemporary Foreign Governments (3).** *3 lecture-discussion hours per week.*

The historical development and contemporary politics of significant foreign governments. Analysis and comparison of major forces and trends in Great Britain, France, Germany, the Soviet Union, China, Japan, Mexico, Tanzania, and India. Special attention will be devoted to current issues.

**3 International Relations (3).** *3 lecture hours per week.*

The nature of relations among states; 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 is included among a variety of current events topics which will be

studied in depth. When studying current world events, these events will be presented in broad historical context to help the student gain an awareness of the complexity and evolution of international relations.

**5 Introduction to Political Theory (3).** 3 lecture hours per week.

The development and uses of classical and modern political ideas with emphasis on developing skill in dealing with political ideas and proposed solutions to problems.

**7 Survey of Constitutional Principles (3).** Prerequisite: History 5 is strongly recommended. 3 lecture hours per week.

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 protection of the laws; the interaction of the Supreme Court with the President, Congress, political parties and interest group. (This course may be used to fulfill the American Institutions requirement.)

**13 Minority Group Politics in the United States (3).** 3 lecture-discussion hours per week.

Study of the political experiences and contributions, both intellectual and organizational, of selected racial and cultural minorities in the United States. Principal focus on Blacks, Mexican-Americans, Asian-Americans, and Native Americans. Brief attention given to European immigrants for comparative purposes. (This course may be used to fulfill the Ethnic Studies requirement.)

**21 American Government (3).** 3 lecture-discussion hours per week.

Survey of American politics and government, including public opinion, voting patterns and elections, pressure group and political party activity, the functions of the President, the Congress and the Supreme Court, and constitutional guarantees of the citizen's rights and liberties. (This course may be used to fulfill the American Institutions requirement. (This course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details).

**23 California State and Local Government (3).** 3 lecture hours per week.

Survey of California state and local government with special attention given to the political and social problems of urban and metropolitan communities. Current

issues and processes are stressed. (This course may be used to fulfill the American Institutions requirement.)

**27 American Society (5).** Prerequisite: Strictly limited to foreign students or recent immigrants. 5 lecture-discussion hours per week.

Orientation course in American society and culture. Includes such topics as: (1) Main values and characteristics of the American people. How and why these traits have developed in American society—Puritan ethic, dream and reality of equality and democracy in America. (2) Political problems, principles and institutions in America — constitution, federalism, civil liberties. (3) American social institutions — the family, religion, arts, entertainment, sports. (4) Current issues and problems in American society. Comparison is frequently made between American traditions, institutions and practices and those of other countries in order to enhance the perspective with which the foreign student views the difference between his/her country and the United States. This course meets the American institutions and California institutions requirements. (This course may be used to fulfill the American Institutions requirement.)

**40 Political Simulation Games (1).** 1 1/2 hour class meetings twice weekly for 6 weeks.

Drawing on the game-like quality of many real-life political situations, the course enables students to enlarge their understanding of politics by participating and making decisions in a miniature society, and then analyzing how well the concepts and assumptions in the simulation represent reality. May be taken in conjunction with another political science course or independently.

**41 Field Work in a Political Campaign (1-2).** 9 lecture hours and 30 lab hours for 9 weeks for first unit; 7 seminar sessions and lab work for second unit.

Students work for the candidate or campaign of their choice for a minimum of 30 hours and meet for one hour weekly during and for several weeks after the campaign (the first nine weeks of the semester) to report on and analyze the candidates and issues of the election. A second unit of credit will be awarded to students who wish to continue meeting as a seminar for the rest of the semester (seven additional meetings) to discuss brief review papers they have written on significant books on Presidential campaigns and elections. Course taken in conjunction with a U.S. or California government course, or independently.

**43 Political and Economic Power: The Questions of the Older Person (3).** Also Business 43. 3 lecture hours per week. Prerequisite: None; prior or concurrent enrollment in Social Science 15 recommended.

The course explores the political attitudes and voting

behavior of older Americans, their past, present, and future involvement in interest-group politics, the laws and government agencies, national, state, and local, that are responding to the needs of the aging, the legal rights of older people, including specific attention to age-based discrimination in employment, and the financial aspects of aging, including financial planning before and during retirement, the Social Security system, private pension plans, savings, annuities, and investments; and estate transfer. Present trends and prospective future changes will be stressed. Attention will be directed to California and San Mateo County programs and developments wherever possible. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**51a-51b U.S. Politics and Current World Affairs (3-3).** 3 lecture hours per week.

Analysis and discussion of United States national, state, and local politics and government, their cultural, economic and social setting, and their relation to current domestic and international issues and events. Brief, timely readings on each topic considered, supplemented by films and speakers, provide a basis for informed discussion. Either semester may be taken separately. Either 51a or 51b fulfills the American Institutions requirement for students working toward the A.A. degree and not planning to transfer to a four-year institution.

## PROGRAM SPECIALS

**70 Program Specials (1/2-1)** 8 hours for 1/2 unit 16 hours for 1 unit. One unit maximum each semester.

Coordinated enrichment program of educational lectures, workshops, artistic events, films and discussions led by faculty members and outside speakers on a wide range of topics.

## PSYCHOLOGY

**1a General Psychology (3).** 3 lecture hours per week.

Introduction to the diverse areas of psychology including principles of learning, theories of personality,

tests and measurement, behavioral disorders and mental health, and physiological and developmental aspects of individuals. Experimental design and research data are emphasized.

**1b Experimental Psychology (3).** Prerequisite: Psychology 1a or consent of instructor. 3 lecture hours per week.

Scientific inquiry of the nature of behavior of man and other animals utilizing experimental methodology. Major objectives include development of skills in collecting and analyzing data from human and animal subjects with various laboratory apparatus. Emphasis upon professional journal format for experimental reports.

**4 Courtship, Marriage and the Family. (3).** 2 lecture hours and one discussion hour per week.

Focus on marriage as a personal and probable event in the lives of the students enrolled: courtship; personality and 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 and as a personal commitment.

**5a Child Development (3).** Prerequisite: Psychology 1a or consent of instructor. 3 lecture hours per week.

An examination of the developmental trends affecting human growth from the prenatal period to adolescence. Emphasis upon the factors influencing personality development. Implications from current learning theorists are explored. Recommended for those interested in children and also for those seeking a better understanding of the child within each of us.

**5b Adolescent Behavior (3).** Prerequisite: Psychology 1a or consent of instructor. 3 lecture hours per week.

This course is designed for those interested in the behavior of the adolescent. It is designed for the adolescent himself, parents of adolescents, and those involved in Social Services relating to adolescents. The approach will stress developmental tasks and concerns.

**5c Maturity and Aging (3).** Prerequisite: Psychology 1a or consent of instructor. 3 lecture hours per week.

To develop in students a concrete awareness of the social, intellectual, emotional, and physical changes occurring in later adulthood through old age and death and an understanding of the importance of the factors influencing personality during this stage of human development. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**6 Social Psychology (3).** Prerequisite: Psychology 1a or Sociology 1, or permission of instructor. 3 lecture hours per week.

Study of human interaction, the effects of social influences on human behavior. Special attention given to social pressure, attitudes, person perception and research methods.

**7 The Psychological Experience of La Raza in the U.S. (3).** Prerequisite: Psychology 1a. 3 lecture hours per week.

The psychological results of being a Spanish-speaking minority within an Anglo society. Emphasis on the psychodynamics of the Spanish-speaking family in the United States. (This course may be used to fulfill the Ethnic Studies requirement.)

**10 Psychology in Practice (3).** 3 lecture hours per week.

Intended for those who wish a general picture of human psychology and do not plan to take further courses in psychology. Emphasis will be on an application of psychological principles to problems of everyday life rather than the technical-scientific approach of Psychology 1a. (This three-unit course may be offered in variable unit modules in off-campus setting under the extended-numbering system. See counselor for details.)

**11a Early Childhood Education Principles and Practices. (3).** Also ECE 11a. 3 lecture hours per week.

Nature and goals of early childhood education. Evolution and exploration of various models of pre-schools and follow-through project. Exploration of the philosophic position, personalities and forces guiding the development of these early childhood programs.

**11b Early Childhood Education Curriculum (3).** Also ECE 11b. 3 lecture hours per week.

Selecting, developing and managing activities for young children. Developing skills in providing adequate and effective education. Learning and values inherent in children's play. Exploration of creative activities and growth experiences through art, music, language development, dance, science, and math.

**12 Child, Family and Community (3).** 3 lecture hours per week.

Designed for those concerned with education or social service fields. Examination of patterns of child rearing techniques and current family life styles in the contemporary society. The varying factors of the community (resources available, urban and sub-urban aspects, racial and cultural differences, economic concerns) as they affect the child and the family will be the emphasis.

**13 Introduction to Parapsychology (3).** 3 lecture hours per week.

Designed to acquaint the student with the various areas of psychic phenomena with a special emphasis on current trends. Each week will take up a different aspect and will deal with developments both in this country and abroad. (This course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**21 Introduction to Exceptionality (3).** Prerequisite: Psychology 5. 3 lecture hours per week.

A survey course emphasizing the descriptive and diagnostic differences of exceptional persons (deaf, learning disabled, orthopedically handicapped, visually handicapped, communicational disorders, educationally handicapped, emotionally disturbed, deaf/blind, the gifted, the aged.) Current approaches concerning educational and recreational suggestions are included, as well as community resources that are available.

**22 Introduction to Developmental Disabilities (3).** Prerequisite: Psychology 5. 3 lecture hours per week.

This survey course examines more closely the characteristics, learning potentials, curriculum guides and community agencies for the developmentally disabled. The course deals with those substantially handicapped-including: mental retardation, autism, cerebral palsy, epilepsy, dyslexia, and other neurological handicapping conditions.

**23 Infant Behavior (3).** 3 lecture hours per week.

This course stresses human development during the first 18 months of life. A survey of developmental trends and environmental influences will be examined. Content especially designed for those interested in Child Development/Early Childhood Education (understanding the early foundations of behavior), the infant educator and interventionist, and parents of the very young.

**33 Psychology of Adjustment (3).** Prerequisite: Psychology 1a or permission of instructor. 3 lecture hours per week.

Study of the dynamic processes involved in man's adaptation to the environment. Designed to provide an understanding of the contingencies of normal and abnormal behavior. Emphasis upon identification of coping behavior in problems in living and adjusting. Consideration of factors affecting personal growth. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**34 Abnormal Psychology (3).** Prerequisites: Psychology 1a and Psychology 33. 3 lecture hours per week.

Elaboration on the study of deviant behavior and abnormal personality development introduced in previous courses. Topics include the major neuroses and psychoses, character disorders and transient disturbances along with their principal symptoms, dynamics, etiology, and treatments. The course is designed to appeal to both the general student and the pre- (or para-) professional candidate.

**39 Human Sexuality: Psychological Aspects (1 1/2)** Half-semester course.

Introduction to human sexual behavior with an emphasis on psychological and interpersonal aspects. Topics will include historical and contemporary thoughts, attitudes, and feelings about various and diverse sexual roles and behaviors.

**42 Introduction to Treatment Modalities (1-3).** 3 lecture hours per week.

Brief study of current theories, techniques and methods employed within the correctional and mental health settings to change behavior. Course is offered in three modules: (1) Brief Therapy and 1-Level Classification, (2) Behavior Modification, and (3) Transactional Analysis. One unit of credit is given for each module.

**43 Psychological Assessment (3).** Prerequisite: Psychology 1a. 3 lecture hours per week.

Quantitative approach to the study of behavior. Introduction to traditional methods of assessment; i.e., intelligence tests, personality tests and clinical diagnostic instruments. Emphasis upon descriptive statistics and consideration of inferential statistics.

**44 Drugs: Effects on Individuals and Society (3).** Also Administration of Justice 44. Prerequisite: Psychology 1a. 3 lecture hours per week.

Introduction to the effects of various categories of drugs. Exploration of the anatomical and physiological basis of drug action. Designed to enable identification of symptoms and side effects of drug use or abuse. Emphasis upon various modes of treatment and rehabilitation.

**45 Principles of Group Interaction (3).** Prerequisites: Psychology 1a and permission of instructor. 3 lecture hours per week.

Introduction to the theories and methods of analysis of group interaction. Emphasis given to the processes

by which a professional therapist guides a group in which the objective is the therapeutic welfare of the group. Emphasis on topics, such as conformity pressure, membership qualities, leadership behavior and reference groups. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**46 Introduction to Counseling (3).** Also Administration of Justice 46. Prerequisite: Permission of instructor. 3 lecture hours per week.

Introduction to the various theoretical views of counseling and exposure to the general principles of interviewing. Major objectives are to provide an opportunity for the development of skills in establishing rapport, setting counseling goals, recognizing strengths in individuals, recognizing self limitations, and methods for making referrals and terminating counseling relationships.

**47 Cooperative Education (1-4)** Credit/no credit.

Supervised field experience.

**48 Special Topics (1-3).** 1 to 3 lecture hours per week.

A course on topics of contemporary interest designed to provide a means for discussing changing knowledge and important issues in psychology. Specific subject matter will vary from semester to semester and is announced in advance.

## QUALITY CONTROL

**61 Introduction to Quality Control (3).** (Evening College) Prerequisite: Mathematics 11 or equivalent. 3 hours per week.

Construction and interpretation of variables, charts, frequency distributions, process and specification comparisons, attribute charts, process simulation, acceptance sampling and Mil-Standards.



# RADIOLOGIC TECHNOLOGY

**1 Orientation to Radiologic Technology (2).** Prerequisite: Concurrent enrollment in Anatomy and Physiology 2a and Physics 42. 2 lecture hours per week.

Orientation to Radiology Technology including hospital organization, medical ethics, economics, political and social influences on radiologic technology. Introduction to radiographic equipment and processing.

**2 Radiographic Positioning (3).** Prerequisite: Anatomy and Physiology 2a with grade of C or better and concurrent enrollment in Anatomy and Physiology 2b. 3 lecture hours per week.

Positioning of the Abdomen, Gastrointestinal System, Urinary System, Respiratory System, Skeletal System and Skull. Includes surface anatomy, pertinent pharmacology patient care and introduction to radiation protection.

**2L Radiographic Positioning Laboratory (2).** Credit/no credit. Prerequisite: Radiologic Technology 1 with grade of C or better and concurrent enrollment in Radiologic Technology 2. 12 hours a week clinical education in affiliated hospitals. (total 18 weeks).

Orientation to hospital and patient care. Includes education in radiology department and other hospital systems, practical positioning and care of the patient.

**3 Principles of Radiographic Exposure (3).** Prerequisite: Radiologic Technology 2 and 2L with grade of C or better and Physics 42. 3 lecture hours per week.

Application of radiation physics to the exposure of X-ray film; technique formulation including the use of phototimers as well as manual techniques. Geometric factors and radiographic accessories will be demonstrated.

**3L Principles of Radiographic Exposure Laboratory (3).** Credit/no credit. Prerequisite: Concurrent enrollment in Radiologic Technology 3, 2, and 2L with grade of C or better. 30 hours a week clinical education in affiliated hospitals (total 10 weeks Summer Session.).

Clinical education in positioning continues with the addition of practice in use of radiographic technique. One hour film critiques each week.

**4 Radiation Health (3).** 3 lecture hours per week.

This course is offered in three parts and may be of interest to students not enrolled in the X-ray Program. **Part 1:** (1 unit-6 weeks). Principles and philosophy of protection from natural and man-made sources of radiation. **Part 2:** (1 unit-6 weeks). Survey of genetics with special emphasis on effects of radiation to the genetic pool. Also somatic effects of radiation. **Part 3:** (1 unit-6 weeks). Legal requirements (both Federal and State) and recommended procedures for protection of patients and personnel in medical and dental facilities.

**4L Radiation Health Laboratory (4).** Credit/no credit. Prerequisite: Radiologic Technology 3 and 3L with grade of C or better and concurrent enrollment in Radiologic Technology 4. 30 hours a week clinical education in affiliated hospitals (total 18 weeks).

Clinical education for Radiologic Technology students. Practical experience continues to build students expertise in performance of radiographic procedures. Emphasis is on total integration of positioning, protection and technique formulation. One hour film critique each week.

**5a Advanced Techniques and Psychology of Patient Care (3).** Prerequisite: Radiologic Technology 4 and 4L with a grade of C or better. 3 lecture hours per week.

Application of basic technical and positioning knowledge to special procedures and care of the patient undergoing such procedures.

**5aL Clinical Education Laboratory (4).** Credit/no credit. Prerequisite: Radiologic Technology 4 and 4L and concurrent enrollment in Radiologic Technology 5a. 30 hours a week clinical education in affiliated hospitals (total 18 weeks).

Continued practical application of radiographic principles with emphasis on special procedures. Students will be required to have limited experience on weekends and/or evening shifts to gain confidence and proficiency.

**5b Clinical Education Laboratory (4).** Credit/no credit. Prerequisite: Radiologic Technology 5a and 5aL. 30 hours a week clinical education in affiliated hospitals (total 15 weeks.)

Final phase of clinical education. Students will conduct majority of radiographic procedures with limited supervision in preparation for employment. A proficiency examination is given in this phase to ascertain whether the student is properly prepared to take the ARRT examination.

## RECREATION EDUCATION

**40 Introduction To Recreation (2).** For major and minor students in *Physical Education and Recreation Education*. 2 lecture hours per week with assigned lab meetings.

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 knowledge 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).** Prerequisites: *Recreation 40 and Physical Education 20*, one of which may be taken concurrently with *Recreation 41*. *Recreational Leadership* may be taken concurrently with *Recreation 42*. 2 hours of lecture per week plus 1 hour of conference and consultation with instructor plus 3 hours of additional field work per week.

Practical supervised experience in San Mateo County area recreation programs for students preparing for recreational leadership positions. Course is for major and minor students in Recreation Education.

**42 Camping and Outdoor Education (2).** Prerequisite: *Recreation 40* or permission of the instructor. 2 lecture hours per week.

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 weekend camping trip is planned as part of the course.

**43 Social Recreation (2).** Prerequisite: *Recreation 40* or *Physical Education 20* is desirable, but not required. 1 lecture and 2 lab hours per week.

Theory and activity course on the effective conduct of social recreation clubs, playgrounds, recreation centers, churches and camps. The leadership of social recreation activities is taught, with the emphasis on the social development and integration of individuals into group programs. Prime consideration given to acquainting students with planning programming and conducting social recreation activities.

**47 Cooperative Education (1-4.)** Credit/no credit. Supervised field experience.

## RELIGIOUS STUDIES

An interdisciplinary Religious Studies major is currently being offered. Courses now existing under this major are:

- History 13—The Bible as History (3)
- History 14—Religion in America (3)
- Philosophy 6, Introduction to Philosophy (3)
- Philosophy 23—Introduction to Ethics (3)
- Philosophy 24—Intro. to Religion: Religions of the World (3)
- Philosophy 25—Western Religious Philosophy (3)
- Philosophy 35—Asian Philosophy (3)
- Sociology 15—Religion and Society: Toward a Sociology of Religion

A more detailed description of these courses may be found under the department name and number.

## SOCIAL SCIENCE

**1 Introduction to the Social Sciences (3).** 2 lecture and 1 discussion hours per week.

Methodology of the social sciences, using local problems as a basis of study. Designed to demonstrate how the resources of political science, anthropology and sociology can be utilized in working out solutions. (This course may be used to fulfill the American Institutions requirement.)

**2 Introduction to the Social Sciences (3).** Prerequisite: None; (*Social Science 1* preferred). 3 lecture hours per week.

Methodology of the social sciences, using international problems as a basis of study. Designed to demonstrate how the resources of history, economics and political science can be utilized in working out solutions. (This course may be used to fulfill the American Institutions requirement.)

**3 Concepts of Criminal Law (3).** Also *Administration of Justice 3*. 3 lecture hours per week.

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.

**6 Consumer in the Market Place (3).** Also *Home Economics 6*. 3 lecture hours per week.

Designed to help the consumer operate in today's complicated market place. Guidelines for intelligent buymanship and money management. Review of consumerism and the rights and responsibilities of the consumer including legislation.

**10 Interaction and Communication for the Paraprofessional (3).** 3 lecture hours per week.

Class emphasizing development of individual and small-group communication skills of a verbal-interactive nature. Designed to increase both listening capacity and delivery skills. Topics include active listening, removing listening barriers, "midwifing," establishing rapport, non-verbal communication, probing and interrogation, role-playing and effectively responding to stress situations, etc. Creative problem-solving through student participation is actively pursued.

**15 Perspectives in Aging: Introduction to Gerontology (3).** 3 lecture hours per week.

What is our image of aging and the reality it manifests in our society? This course attempts to establish some perspectives on aging in our "youth-oriented" society; the elderly as a population group; the processes of aging; the needs of the elderly. "Will you still need me; will you still feed me when I'm sixty four?" These words of the 1960's Beatles' song poses a key question to everyone in our society. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**20 Current World Affairs (3).** 3 lecture-discussion hours per week.

Study-discussion of vital international and national issues of the current year. List of topics varies from semester to semester. Political, social and cultural events are analyzed to give perspective and understanding to them. Emphasis on helping class members relate their personal opinions, feelings, and beliefs to the forces, feelings and beliefs which lie behind and motivate a variety of recent events in international relations, domestic political developments, environmental issues, racial controversies and social reform

movements. Brief, timely readings on each topic, supplemented by films, provide a basis for informed discussion. (May be repeated for a maximum of 6 transferrable units.) (This course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**29 Juvenile Problems and Procedures (3).** Prerequisite: *Administration of Justice 1, Social Science 40, or Sociology 2, or concurrent registration in same.* 3 lecture hours per week.

This course will provide Administration of Justice and other Social Science students with a survey of juvenile delinquency which will include a social definition of the term "juvenile delinquency," review and analysis of various explanations of delinquency, survey and critique of the juvenile justice system; examination of selected social agencies like the police, probation departments, detention centers, welfare systems and other youth-oriented services.

**32 Contemporary Mexican-American Social Movement (3).** 3 lecture hours per week.

Study of contemporary Mexican-American social action. Analysis from a sociological and psychological point of view. Designed to give students a greater understanding of the present and future development of the Mexican-American within American society. (This course may be used to fulfill the Ethnic Studies requirement.)

**33 Afro—American Culture (3).** 3 lecture hours per week.

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 is examined, and culture of the contemporary Black community also is studied in present and historical perspective. (This course may be used to fulfill the Ethnic Studies requirement.)

**34 Mexican-American Culture (3).** 3 lecture hours per week.

Contemporary view of the Mexican-American community covering its cultural heritage, social structure, problems and creative contributions. (This course may be used to fulfill the Ethnic Studies requirement.)

**35 Parent Education (3).** Also *Home Economics 35*. Prerequisite: *Completion of or concurrent enrollment in Psychology 1a.* 3 lecture hours per week.

A realistic approach to parent education with the end goal being more "positive parenting." Implications

for rearing children will not be limited to a particular age, but developmental issues for all children will serve as the base. Different parenting techniques will be examined, i.e. permissive vs. restrictive, as well as a view of various parenting structures (single parent—mother or father, parents in communal settings, multi-racial parents.) Recommended for all parents, prospective parents, and those interested in issues faced by parents today.

**36 Life Cycle: Families in Crisis (3).** *Also Home Economics 36. 3 lecture hours per week.*

An increased awareness of self is the primary goal of this course. Through a review of how we handle change, stress and crisis, individual coping abilities will be examined. Concerns and crisis that affect many today will be covered: family communication, marriage, parenting, divorce, suicide, violence, alcoholism, drug abuse, aging and death.

**37 Sociology of Women (3).** *Also Home Economics 37. 3 lecture hours per week.*

The woman today—her issues and concerns—will be the focus of this survey course. The aim of the course is to increase personal awareness of role change and flexibility.

**38 Community Relations of Public Agencies (3).** *Also Administration of Justice 38. 3 lecture hours per week.*

Role of public agencies in contemporary society with particular emphasis on minority group relations. Examination of the society and the agencies that perform the police and service functions.

**40 Introduction to Human Services (3).** *3 lecture hours per week.*

Designed to assist students in their decision-making about careers in one of the social services and to give students an opportunity to interact with representatives from any social service agencies. 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. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**41 The Community Worker (2).** *Prerequisite: Concurrent enrollment in Social Science 47-Cooperative Education (1-4) Social Science 40 or consent of the instructor (acceptable field experience). 2 lecture hours per week.*

Instruction in writing observations, log entries, reports, evaluation, case studies, and other related writing skills; field trips to various local agencies and institutions. Emphasis on the meaning of "profes-

sionalism," the importance and function of professional ethics and the difficulty personnel encounter in living these roles.

**43 Educational Resources (1).** *2 hours per week for 8 weeks.*

Basic introduction to the Education Code, the welfare and other institution codes, and a working knowledge of negotiations with various school officials. Use of the variety of services available to the community, e.g., home teachers, special tutors and special education program.

**44 Community Development (3).** *3 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.

**47a-47b Cooperative Education (1-4).** *Credit/no credit.*

Supervised field experience.

**48 Special Topics (1-3.)** *1 to 3 lectures 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.

## SOCIOLOGY

**1 Introduction to Sociology (3).** *3 lecture hours per week.*

Main focus centers on the identification and analysis of society's basic structures and the central forces that motivate and give direction to social behavior. Includes an introduction to the method of Sociology, interpretations of individual and group behavior, and a survey and analysis of America's regulating social institutions. Class discussions and readings primarily concerned with developing an understanding of selected sociological references, as well as the impact of political, economic and social conditions.

**2 Social Problems (3).** 3 lecture-discussion hours per week.

Important issues and problems currently facing the American society, including the response from government agencies, provide the substance of this course. By analyzing the nature and extent of selected problems like crime, institutional racism and social inequality-poverty, attention is necessarily focused on conditions that foster and support their growth and development. Related issues such as drug abuse, treatment of offenders, health problems, education and legislative decisions provide important elements of this course. (This three-unit course may be offered in variable unit modules in off-campus settings under the extended numbering system. See counselor for details.)

**3 Minorities in American Society (3).** Prerequisite: Sociology 1 or 2, History 33 is recommended. 3 lecture hours per week.

Sociology of inter-ethnic contact with emphasis on the experience of minorities of color in the United States. An examination of the dual themes of racism and equality in American society. (This course may be used to fulfill the Ethnic Studies requirement.)

**5 Sociology's Future: Surviving the Collision with Tomorrow (3).** Prerequisite: Should have had an introductory course in Sociology. 3 lecture hours per week.

Projecting the trends of today to their ultimate "illogically-logical extreme," in order to illuminate where our decision of today can carry us in the future.

**12 Introduction to Urban Sociology (3).** Prerequisite: Sociology 1 recommended. 3 lecture hours per week.

The nature, causes and consequences of industrial urbanization with special emphasis on social problems and urban planning associated with metropolitan communities and metropolitan complexes in the United States.

**15 Religion and Society: Toward a Sociology of Religion (3).** Prerequisite: A Sociology course is strongly recommended. 3 lecture hours per week.

Analysis of the sociological consequences of religious experience and its expression in man's efforts to organize his society; deals with the types of religious organization of society as well as religion's role in shaping societal notions of authority and differentiation. Finally, some consideration of the above analysis in society today.

## SPANISH

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).** 5 class hours 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).** 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. 5 class hours per week.

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).** Prerequisite: Spanish 2 with a passing grade or assignment by the English-Foreign Language Division on the basis of the Foreign Language Placement Test in Spanish. 5 class hours per week.

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.

**4 Advanced Intermediate Spanish (3).** Prerequisite: Spanish 3 with a passing grade or assignment by the English-Foreign Language Division on the basis of the Foreign Language Placement Test in Spanish. 3 class hours per week.

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.

**25a-25b Advanced Spanish (3-3).** Prerequisite for 25a; Spanish 4; prerequisite for 25b: 25a. 3 class hours per week.

Oral and written composition, class reading of works of Spanish and Spanish-American literature, exten-

sive collateral reading of varied types of Spanish and Spanish-America literature, and review of grammar.

**46 Foreign Language Laboratory (1/2-1).** *Credit/no credit. 3 lab hours per week.*

A program consisting of 25-50 hours of work in the language laboratory, emphasizing speaking and understanding Spanish.

**100a Introduction to Oral Spanish (2).** *Credit/no credit. 3 hours per week.*

Practical course in the Spanish language approached by way of conversation. Intensive drill in the formulas and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100b Intermediate Oral Spanish (2).** *Credit/no credit. Prerequisite: Spanish 100a. 3 hours per week.*

Further drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100c Advanced Intermediate Oral Spanish (2).** *Credit/no credit. Prerequisite: Spanish 100b. 3 hours per week.*

More advanced drill in the patterns and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

**100d Advanced Oral Spanish (2).** *Credit/no credit. Prerequisite: Spanish 100c. 3 hours per week.*

Further advanced drill in the formulas and idioms of daily speech is supported with sufficient grammar to give flexibility in the spoken language. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

## SPEECH- COMMUNICATION

**1a Fundamentals of Speech-Communication (3).** *Prerequisite: Enrollment in English 1a or permission of instructor. 3 class hours per week.*

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 communications.

**10 Interpersonal Speech-Communication (3).** *3 class hours per week.*

Experimental approach to the study of inter-personal speech-communication, rational dialogue and cooperative analysis of communicative events. Study and practice of communicative action-interaction-transaction, the symbolic process, reasoning and advocacy, and the effects of verbal and non-verbal communication on the individual and society.

**11 American Speech (3).** *3 class hours per week.*

Broad survey of American speech - its origins, development, characteristics and use. Emphasis on language as it is spoken today, with a strong thesis that study of the past use of language will help to develop a fuller understanding of the language as it is spoken by the culture and by the individual.

**12 Black American Speech (3).** *(Evening College) 3 lecture hours per week.*

Intensive study of the spoken language used by Blacks in America. The course will include a study of the origins of Black American English. (This course may be used to fulfill the Ethnic Studies requirement.)

**30a-30b Oral Interpretation of Literature (3-3).** *3 class hours per week.*

Oral reading of literature (poems, short stories, plays); analysis of meaning; analysis of voice quality, pronunciation and expressiveness.

**57a-57b Speech-Communication for Foreign Students (5-3).** *Prerequisite: Assignment by the Foreign Student Advisor or by S.D.P. Counselor. 57a-5 class hours per week, 57b-3 class hours per week.*

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.

## STATISTICS

**1 Statistics for the Social Sciences (3).** *Prerequisite: High School algebra or consent of instructor. 3 lecture hours per week. Parallels: Statistics 2, University of California, Berkeley; Statistics 60, Stanford University; Statistics 1000, Hayward State University.*

Elementary and practical approach to many basic,

modern statistical concepts, methods and their usages. Numerous examples are drawn from a wide variety of fields, especially application from social sciences, business, engineering, and general education. Topics: Summarization and presentation of data; analysis of data; basic concepts of probability; binomial and normal distributions; methods of collecting reliable data; estimation of parameters; testing simple hypotheses; simple correlation analysis.

**2 Statistics for Business and Economics (4).** Prerequisite: Math 13, or consent of instructor. 3 lecture hours and 3 lab hours per week. Statistics 1 is helpful. Parallels: Business 90, San Jose State University; Business 212, San Francisco State University; Statistics 2010, Hayward State University.

Modern and practical approach in probability and statistical concepts and techniques as used for business, management, economics, and business related

applications. Contents: Collection, presentation of sampled data; measures of central tendency and dispersion; some probability concepts and distributions; sampling distributions and methods; index numbers; parametric and non-parametric testings; analysis of variance; regression and correlation; time series.

## TV/COMMUNICATIONS

(See Home Economics)

## TOURISM

**4 Introduction to Tourism (3).** 3 lecture hours per week.

Travel industry reference materials and career skills necessary for employment. The course includes how to read and use reference materials to prepare itineraries including hotels, airlines, steamships, local tour operations, wholesale package tours and rail travel; reservation procedures and itinerary planning.

**10 Basic Procedures Retail Travel (3).** Prerequisite: Tourism 4. 3 lecture hours per week.

Application of learned theories; usage of reference materials in itinerary preparation; sales techniques and training in actual reservations procedures necessary in daily working situation in a travel agency, including credit sales procedures, insurance forms, security measures, M.C.O.'s and other ACT forms, and ATC sales reporting.

**11 Advanced Procedures — Retail (3).** Prerequisite: Tourism 4 and 10. 3 lecture hours per week.

International itinerary preparation (F.I.T.) worldwide (all areas) and those reference materials used in planning and costing, including cruises, freighters, ferries, and passenger steamship travel, international rail travel and bus tours, and comparisons of package tours currently being offered on the West Coast market, plus F.I.T. house procedures and group costings.

**20 Domestic Airline Tariff and Ticketing (3).** (This course may be taken concurrently with Tourism 4) 3 hours per week.

To prepare students to plan airline itineraries, make reservations, and to rate and issue actual tickets. A basic course in all aspects of domestic tariff and ticketing teaching students how to correctly use Squire's Tariff and the Travel Agents' Handbook.



**21 International Airline Tariff and Ticketing (3).** (Evening or Saturday) Prerequisite: Tourism 20 or permission of instructor. 3 hours per week.

Construction of international tariff using the International Air Tariff books, applying various rules of tariff construction, such as one-way back hauls, circle trip minimums, hidden-city construction, further point principle, maximum permitted mileages, and percentage add-ons. How to correctly complete a fare calculation ladder in any fare situation.



**30 Wholesale Tour Operations-Beginning (3).** (Evening or Saturday) Prerequisite: Tourism 4, or permission of instructor. 3 hours per week.

This course is an introduction to the technical aspects of wholesale tour operation and the office procedures involved. Pricing and planning will be covered with some preliminary look at marketing. This course is planned both to prepare those students who plan to work in wholesale and for those already in the industry who wish to incorporate wholesale tour operations into their retail agency.

**31 Wholesale Tour Operations-Advanced (3).** (Evening or Saturday) Prerequisite: Tourism 30. 3 hours per week.

Special airfares used with package tours; operating as a local tour operator; working with allotments; advertising and sales promotion; researching new tours; writing brochures that sell; negotiating for over-ride commissions; filing for IT numbers; setting up cost comparison charts; breakage factor in pricing tours; and other procedures used in brochure production, distribution and marketing.

**46 Retail Travel Workshop (1-2 Units).** Prerequisite: Tourism 4, 10, 11, 20.

Retail agency workshop — simulating actual retail travel agency work experience utilizing all skills learned in previous Tourism classes, planning itineraries, writing tickets, putting together final documentation, filling out required forms, setting up filing systems, and costing F.I.T.'s. (This course is an alternative to Tourism 47, Coop Ed., for those not already working travel jobs.)

**47 Cooperative Education (1-4).** Credit/no credit.

Supervised field experience.

**140a Executive Management Travel Education (Travel Agency Business Management) (3).** Prerequisite: Permission of instructor.

This course increases management effectiveness by applying professional office management techniques to travel agencies. Content includes methods for improving the productivity, accuracy and efficiency of travel agency personnel.

**140b Executive Management Travel Education (Passenger Traffic Management) (3).** Prerequisite: Permission of instructor.

This course is devoted to a detailed study of travel agency operations. It emphasizes procedures designed to improve travel services and client satisfaction.



**140c Executive Management Travel Education (Marketing and Sales Management) (3).** Prerequisite: Permission of instructor.

Applies marketing, sales promotion, and advertising theories and techniques to the sales problems of retail travel agencies. Much emphasis is placed on the identification of new markets and suggested methods for reaching these markets.

**140d Executive Management Travel Education (International Travel and Tourism) (3).** Prerequisite: Permission of instructor.

Concentrates on geographic, social and cultural factors of international tourism and the part played by the retail travel agent in the development of tourism.

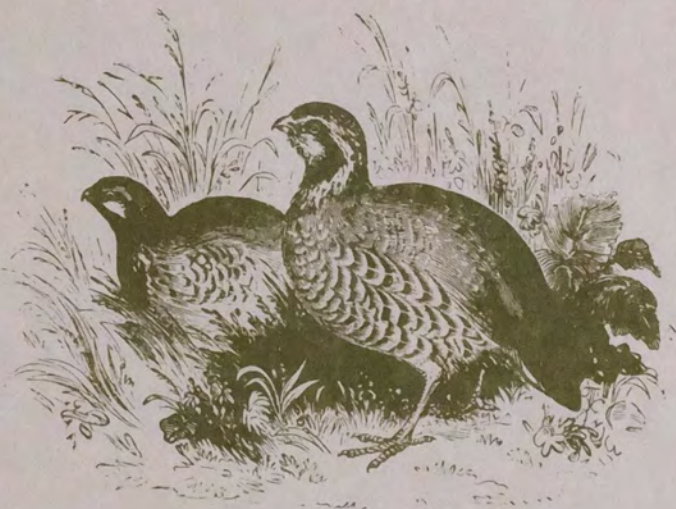
## X-RAY TECHNOLOGY

See "Radiologic Technology."

## ZOOLOGY

**1 General Zoology (5).** Prerequisite: High School Biology with grade of B or better, or Biology 1 with a grade of C or better. 3 lecture and two 3-hours lab periods per week.

Study of invertebrate and vertebrate animals, their organs and functions, adaptations, evolution and natural history.



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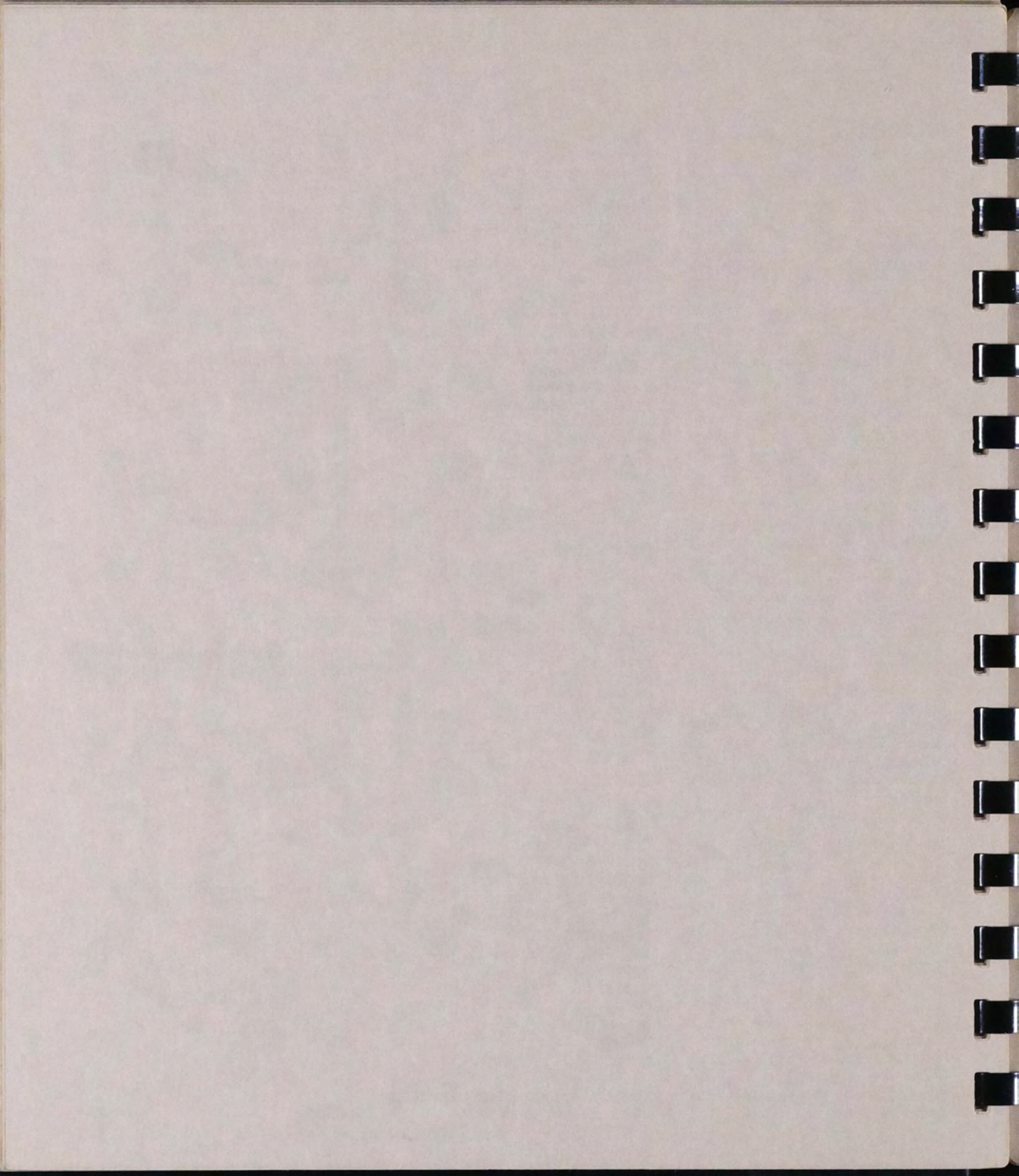
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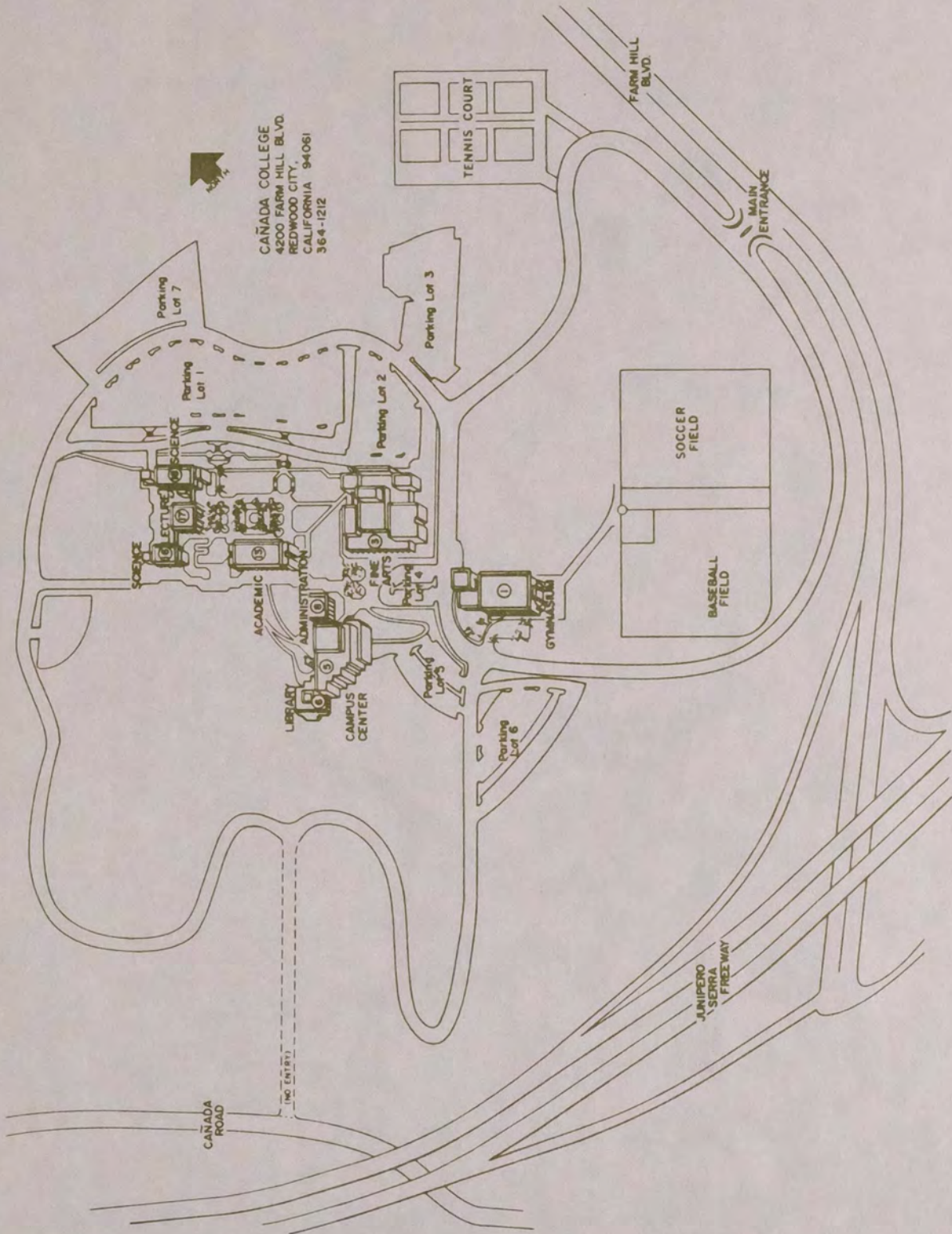
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CANADA ROAD

INC. ENTRY

TENNIS COURT

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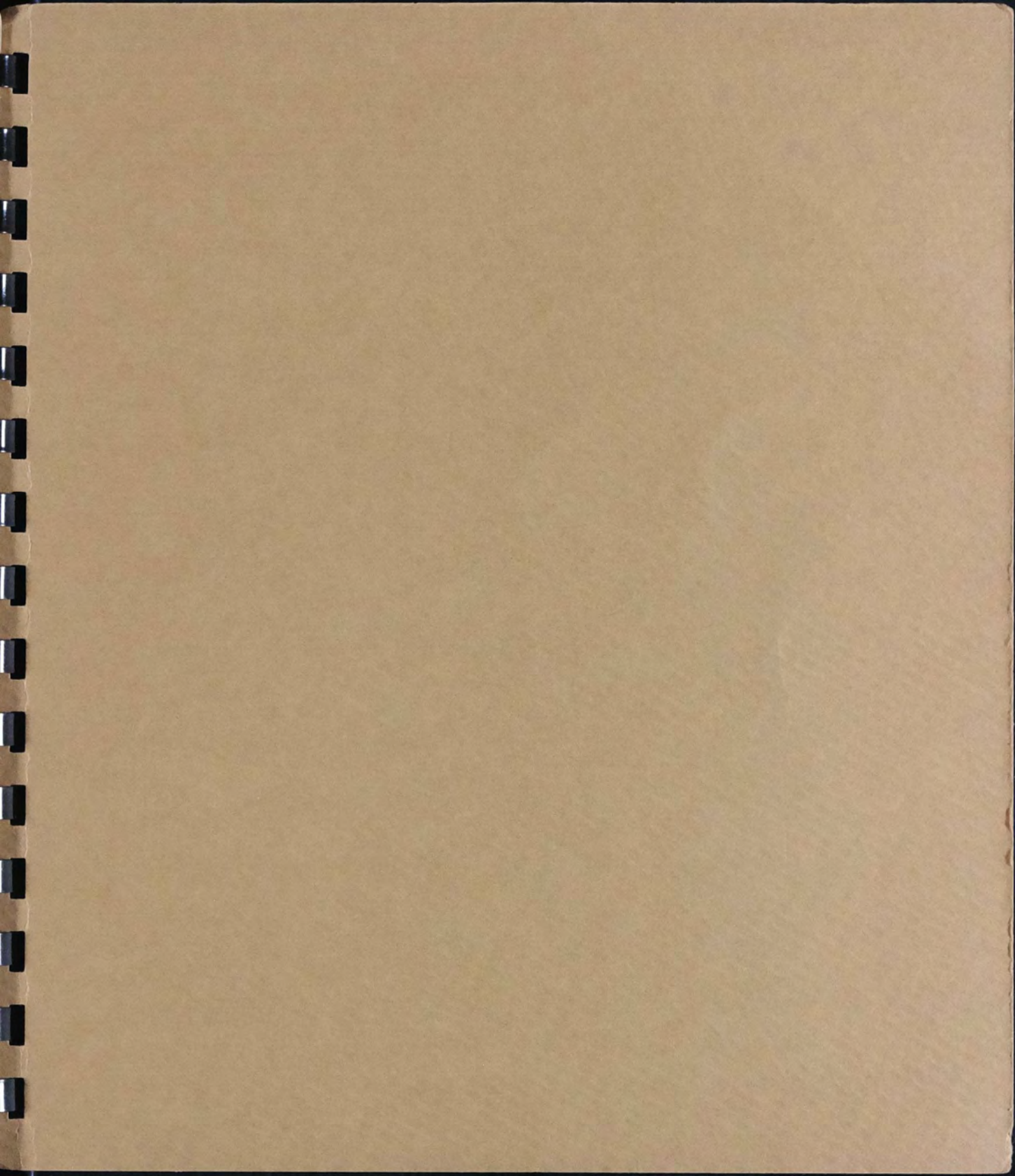
MAIN ENTRANCE

SOCCER FIELD

BASEBALL FIELD

JUNIPERO SERRA FREEWAY





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