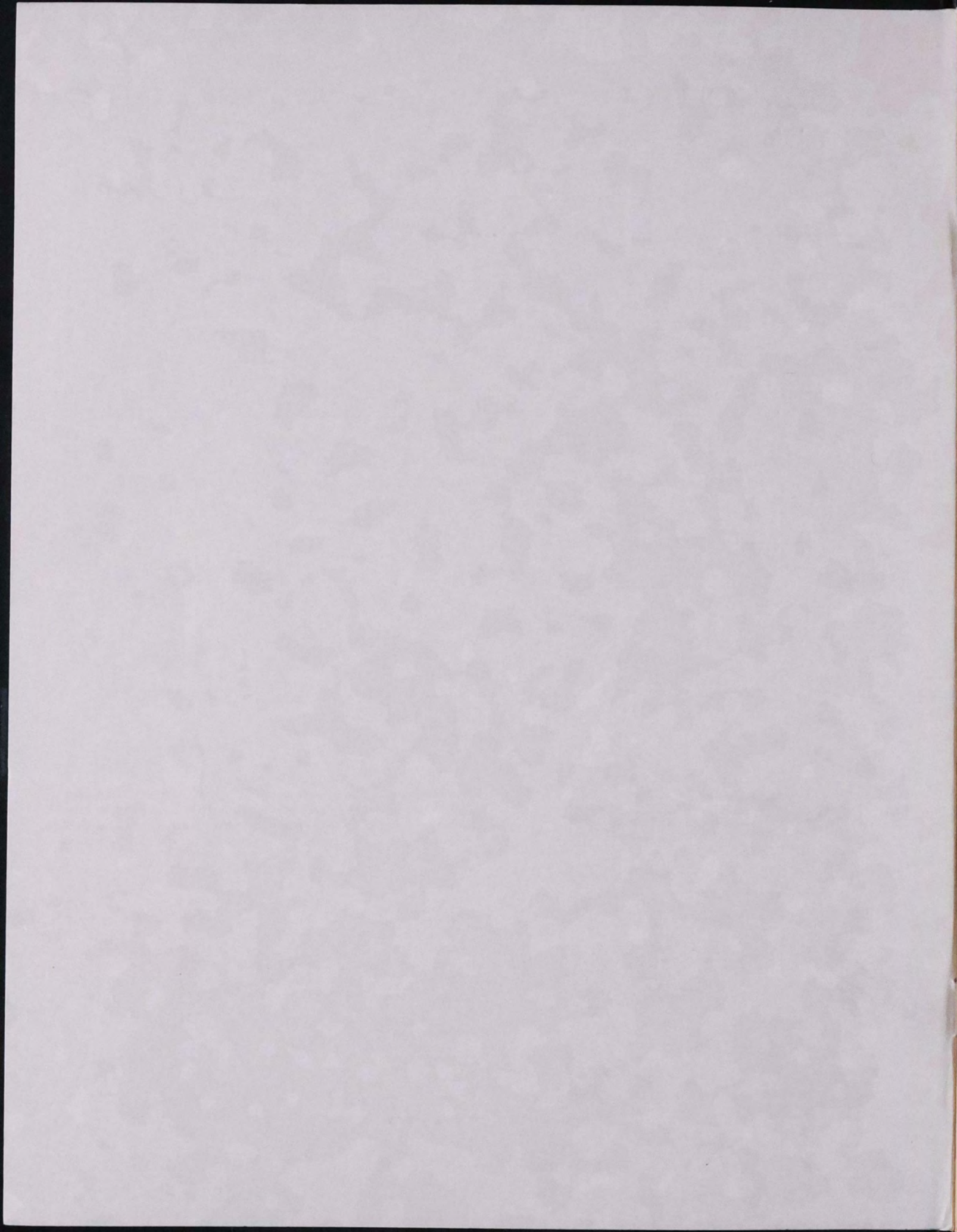




CATALOG

1987 — 1988



BOARD OF TRUSTEES

Cañada College is part of the San Mateo County Community College District which also operates College of San Mateo in San Mateo and Skyline College in San Bruno. The District and its Colleges are governed by a five-member Board of Trustees elected at large for four-year terms by county voters.

William E. Jordan, M.D., President

Eleanore D. Nettle, Clerk

Thomas L. Constantino

James R. Tormey, Jr.

Jim Warren

Glenn P. Smith,
District Chancellor-Superintendent

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

CAÑADA COLLEGE

4200 Farm Hill Blvd.
Redwood City, California 94061
Phone Day (415) 364-1212
Evening (415) 364-0262



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The San Mateo County Community College District and Cañada College have made every reasonable effort to determine that everything stated in this catalog is accurate. Courses and programs offered, together with other matters contained herein, are subject to change without notice by the administration of the San Mateo County Community College District or Cañada College for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District and the College. At the time of publication, the fees described in this catalog are accurate. However, at any time, local or state mandated fees may be imposed or increased. The District and the College further reserve the right to add, amend, or repeal any of their rules, regulations, policies and procedures, consistent with applicable laws.

Cover Painting
Bill Wells

Photography
Terri Creswell

2 CALENDAR FOR 1987-88

SUMMER INTERSESSION, 1987

- June 22 Summer Intersession begins
- July 3 Holiday—Independence Day
- July 31 Six-week Summer Intersession ends
- Aug. 14 Eight-week Summer Intersession ends
- Aug. 28 Ten-week Summer Intersession ends

FALL SEMESTER, 1987

- Sept. 7 Holiday-Labor Day
- Sept. 8 Classes begin
- Sept. 21 Last day to add classes
- Sept. 21 Last day to drop classes with eligibility for enrollment fee refund
- Sept. 21 Last day to drop classes without paying drop fee
- Sept. 28 First Census Day
- Oct. 2 Last day to drop classes without appearing on student's record
- Oct. 30 Mid-Term grade reports due
- Nov. 13 Holiday—Veterans' Day
- Nov. 16 Second Census Day
- Nov. 26 Holiday—Thanksgiving
- Nov. 27-28 Declared recess
- Dec. 11 Last day to drop semester-length classes without possible penalty grade
- Dec. 21-Jan. 2 Winter recess
- Jan. 14, 15, 19-22 Final examinations (Day classes)
- Jan. 18 Holiday—Martin Luther King
- Jan. 22 Classes close
- Jan. 25-29 Inter-semester recess

SPRING SEMESTER, 1988

- Feb. 1 Classes begin
- Feb. 12 Holiday—Abraham Lincoln
- Feb. 13 Declared recess
- Feb. 15 Holiday—George Washington
- Feb. 16 Last day to add classes
- Feb. 16 Last day to drop classes with eligibility for enrollment fee refund
- Feb. 16 Last day to drop classes without paying drop fee
- Feb. 22 First Census Day
- Feb. 26 Last day to drop classes without appearing on student's record
- Mar. 28-Apr. 2 Spring recess
- Apr. 8 Mid-term grade reports due
- Apr. 18 Second Census Day
- May 13 Last day to drop semester-length classes without possible penalty grade
- May 30 Holiday—Memorial Day
- June 8-10, 13-15 Final examinations (Day classes)
- June 15 Classes close

SUMMER INTERSESSION, 1988

- June 20 Summer Intersession begins
- July 4 Holiday—Independence Day
- July 29 Six-week Summer Intersession ends
- Aug. 12 Eight-week Summer Intersession ends
- Aug. 26 Ten-week Summer Intersession ends



Robert Stiff, President

John Greenalch, Vice President

Clayton Bowling, Director
Basic & Applied Sciences Division

Floyd Elkins, Director
Business/Social Sciences Division

Classie Foat, Director
College Services

John Friesen, Jr., Director
Humanities Division

Ella Turner Gray, Director
Special Programs & Services

Jesse Guerrero, Registrar

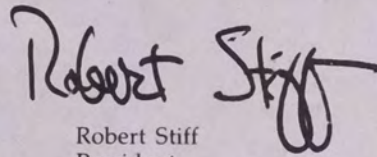
Lori Hergert, Director
Instructional Resources

FROM THE PRESIDENT

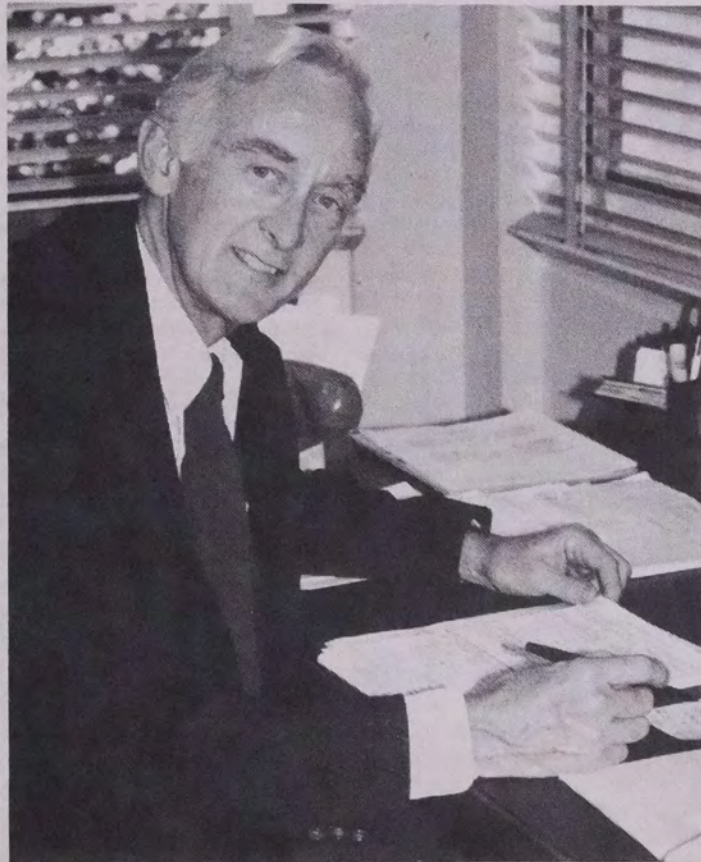
I wish to extend a warm welcome to you as you begin your attendance at Cañada College. I urge you to take full advantage of the many educational opportunities this College has to offer—a varied curriculum, a strong instructional staff, and excellent support services. You will be richly rewarded if you take your course work seriously while you are here.

If you have a suggestion as to how we might improve some area of the College's operation, please feel free to pass it on to me or to other members of the staff.

I hope your experience here will be intellectually and personally satisfying.



Robert Stiff
President



4 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 County Community College District and its primary service area is the southern portion of San Mateo County.

Instructional offerings cover all of the broad and essential areas of human knowledge, including the arts, sciences, and humanities. Many courses are also offered in occupational subject areas. Courses are offered through a variety of instructional systems and learning environments.

The College's classrooms are generally small by design and offer an opportunity for students to become personally acquainted with their instructors. Cañada's student services program includes academic and vocational counseling services, financial aids, tutorial assistance, disabled students services, women's re-entry, programs for academically disadvantaged students and a wide range of student activities.

Cañada is a friendly and open campus. Teachers, students and administrators participate in 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 Executive Dean.

It is the policy of this District that every class offered, unless otherwise indicated in the official catalog and schedule of classes, shall be fully open to enrollment and participation by any person who meets the academic prerequisites of such class, and who is otherwise eligible for admission to and enrollment in the College.

As required by Title IX of the Education Amendment of 1972 (45 CRF 86) and Title VI, Cañada Community College does not discriminate on the basis of race or sex in admission to or employment in the educational programs and activities which it operates. Inquiries concerning Title IX may be directed to Ms. Ella T. Gray, Director of Special Programs and Services.

MISSION AND GOALS SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT MASTER PLAN

Mission

The San Mateo County Community College District, recognizing each individual's right to education, is committed to leadership in providing quality education with its community to:

- identify and respond to the educational needs of the community;
- provide an environment which enables students to understand their social responsibilities and realize their individual potential;
- encourage the pursuit of lifelong learning in a changing world; and
- maintain a climate of academic freedom in which a variety of viewpoints may be shared.

Goals

To fulfill its mission, San Mateo County Community College District has established the following goals. In pursuit of these goals, the overriding concern of the District will be maintenance of quality even at the expense of scope of service. The San Mateo County Community College District shall:

- provide varied general educational opportunities which acquaint students with the broad outlines of human knowledge and experience.
- provide lower-division transfer programs which prepare students for continued education in four-year colleges and universities;
- offer occupational education and training programs directed toward career development, in cooperation with business, industry, labor, and public service agencies;
- offer developmental/remedial education to enable students to develop those basic skills essential to successful completion of college goals;
- identify and meet community needs not otherwise served by college credit courses by offering self-supporting Community Service classes and activities;
- provide a program of student services to assist students in attaining their educational and career goals; and
- actively implement its policy of affirmative action for under-represented groups in student recruitment and personnel employment.

In order to fulfill its educational mission and to attain the goals described herein, the San Mateo County Community College District commits itself to effective analysis and evaluation of programs, services, and performance of personnel. It shall plan, organize, and manage its resources to achieve maximum effectiveness, efficiency, and accountability. Participation by the College community in these endeavors is desirable and appropriate.

ROLE OF THE FACULTY AND STUDENTS

Cañada College is governed by policies approved by the Board of Trustees of San Mateo County 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 Academic Senate, which operates through a Governing Council (elected by the faculty). Student members of committees are appointed by the Associated Student Government.

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.

REVISION OF REGULATIONS

Any regulation adopted by the administration of Cañada College will be considered an official ruling and will supersede regulations on the same subject which appear in this catalog and other official publications, provided that the new regulation has been officially announced and posted.

BOOKSTORE

Textbooks and supplies may be purchased from the Cañada College Bookstore, open Monday through Friday. Please call 367-1774 for more information.

BUSINESS OFFICE

The Business Office processes all monies for fees, distributes payroll checks, files insurance claims, maintains records and accounts of student activities. It also schedules events in the cafeteria, Main Theater, and gymnasium.

CAFETERIA

The Cafeteria is open for service to students and visitors on campus during school hours—day and evening.

COMPUTER CENTER

The Cañada Computer Center, located in the Administration Building, directly below the cafeteria, is open for use by students, faculty and staff daily (Monday through Sunday), and evenings (Monday through Thursday). Check with the Center for the actual hours: 364-1212, Ext. 304 or 430.

The on-campus computer is a DEC PDP-11/44 multi-station, time-sharing minicomputer that was donated to Cañada College by Digital Equipment Corporation. This computer allows up to 30 users to edit and/or run various computer language programs simultaneously. The Computer Center also houses nine independent APPLE and fifteen IBM-PC microcomputers. These microcomputers are used by students and faculty both for microcomputer class applications and for working with computer-assisted-instruction (CAI) in many other classes.

Students may use programs written for their classes, or they may write programs of their own in a variety of languages. The PDP-11/44 computer supports Assembly Language, BASIC, C, COBOL, FORTRAN, and Pascal for both beginning and advanced programming classes. Text editing (i.e., simplified word processing) is also available on the PDP-11/44 computer. Both the APPLE and IBM-PC microcomputers support a very large range of software for various applications. Student assistants are available at all times that the Center is open, to help users interact with the computers and also to answer limited programming and software questions.

In addition, students may use the PDP-11/14 computer, with text editing, to write and edit their reports and/or essays for any class at the College, by signing up for COMP 699. Students who wish to obtain an account on the PDP-11/44 and/or use the APPLE or IBM-PC computers to further their computer learning outside of a regularly scheduled class may also sign up for COMP 699.

ENGINEERING CENTER

The engineering center at Cañada College provides advanced laboratory facilities for the transfer engineering program. This center provides Computer Aided Design (CAD) Systems for use by the students in their design class, and in other classes as required. In addition, a number of other software packages are used in conjunction with the APPLE computers to allow students to explore the use of computers in all their engineering classes. The Engineering Center also houses the materials science laboratory for use in ENGR 270—Materials Science.

MANAGEMENT & TRAINING INSTITUTE

The Management & Training Institute at Cañada College has been extremely successful in meeting the demand from local business and industry in the area of EMPLOYEE TRAINING. The Institute satisfies the requirement for employers to upgrade employee skills, cross-train, and improve employee morale by taking an active interest in education and training of employees. Designed to meet the specific requests of the employer, these

programs may be conducted as college credit classes or as fee-based seminars. The Institute remains totally flexible as to length of training (hours, days, weeks or months) and as to location (employer's site or on-campus).

Classes cover a full spectrum of subjects including computer languages, microcomputer applications, foreign languages, physical fitness, pre-retirement planning, and virtually any other area of training which is needed. Instructors include members of Cañada's credentialed staff, private consultants, and professionals from Bay Area corporations.

Cañada can boast of state-of-the-art equipment, a convenient and beautiful location, and modern facilities which include large IBM-PC computer labs, with as many as 21 PCs per room, and a System/36 minicomputer.

In addition to custom-designed classes, the Institute conducts open enrollment weekend workshops on such general topics as IBM-PC applications, and specialized topics in areas such as Interior Design.

The Management & Training Institute's credentialed Director has a broad corporate experience in training. The professional staff of the Institute effectively coordinate all administrative details of course design and implementation.

Please call (415) 364-8229 for further information. Our Director will call on you at no charge to discuss your training requirements.

LIBRARY

The Cañada College Library is housed in the westernmost 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 Media Center and Computer Center (second floor) and continuing to the Library (first floor).

The Library strives to support the instructional program of the College by providing a wide variety of information sources in print form and by organizing them for easy access.

There are three service areas. The *Circulation/Reserve book* area contains restricted loan material as well as college catalogs. The *Reference/Periodical* area serves the research needs of students. Shelves there are periodical and newspaper indexes, the microfilm collection, as well as a large variety of reference source material. The card catalog provides access to a general collection of some 51,000 volumes arranged on open shelves in the *Reading Room*. Table and carrel seating for students is provided in this room, which affords a panoramic view of the wooded slopes of Skyline Ridge and is an inviting place for quiet study.

Students who wish to make effective use of library resources and services should investigate the basic skills course listed in this catalog under Library Science.

MEDIA LEARNING CENTER

The Media Learning Center is located on the second floor of the Campus Center, directly above the Library. The M.L.C. provides an audio-visual laboratory and microcomputer center where students can pursue remedial review, and enrichment learning experiences. The facilities include: audio-visual study carrels, individual video viewing facilities, listening stations, language laboratory, TV rooms for videotaping and group viewing, a faculty recording studio, and a media production room for faculty produced instructional programs. There is a circulating collection of 3,000 phonodiscs and more than 2,000 tapes, cassettes, videotapes and media-kits in a wide range of subject areas. The Center also provides delivery of a variety of AV equipment and films to support classroom instruction.

OFFICE OF BUSINESS OPERATIONS

The Business Operations Office has responsibility for operation of the College Business Office, security, classified and regular certificated payroll, central duplicating and PBX mail-room.

STUDENT SERVICES

The primary goal of Student Services is to provide support for students so that they will be successful at Cañada College. Student Services is responsible for all non-instructional services, under the general categories of:

- Admissions and Records
- Counseling and Guidance
- Special Services

Admissions and records, transcript requests, financial aids, personal counseling, academic advising, health services, student government, and special programs, i.e., Disabled Students Program, EXCEL, E.O.P.S., and C.A.R.E., are the responsibility of the directors who report to Student Services. Students are encouraged to see the Vice President with concerns and suggestions for improvement.

PARKING

Parking anywhere on campus is by permit only, in clearly designated areas (see campus map). Some lots are limited to staff only in the daytime, but are open to students in the evening, with the exception of Lot 5, which is staff only day and evening.

All students driving a motor vehicle and parking on campus are required to pay a \$10.00 parking fee for the summer session and \$20.00 each for the fall and spring semesters. Students may elect to pay a daily parking fee.

Parking fees are non-refundable unless an action of the College prevents a student from attending class (for example, permanent cancellation of the class). Only motor vehicles with valid parking permits may park on campus. Parking regulations and permit requirements will be strictly enforced.

The permit must be affixed to the rear, left bumper or to the lower left corner of the rear window. **Mirror hangers are no longer allowable.**

A second permit may be purchased for \$1.00 on presentation of registration certificates from both vehicles showing ownership by the same person.

Visitor Parking Lot 4 is limited to 1/2 hour parking during the day except in Handicapped spaces. Visitors on official business may request a temporary Visitor's Permit allowing them to park in Visitor or permit lots. These are available from the Business Operations Office, Building 8, Room 305.

Special parking permits for handicapped students—day and evening—are authorized by the Disabled Student Office, Building 3, Room 103.

Parking will be on a first-come, first-served basis. The permit is not a guarantee of a parking space. The College and the San Mateo County Community College District accept no liability for vandalism, theft, or accidents. Use of the parking facilities is at the user's risk.

TUTORIAL SERVICES

The Tutorial Services Program strives to provide free individual and group tutoring to any Cañada student needing assistance in his or her course work. Emphasis is placed on increasing the chances of success in a specific course or in educational/vocational goals. Tutors are recruited in a wide

range of academic areas and are students who have been recommended or verified by faculty as competent and capable.

Students who need tutoring or wish to tutor others must complete the appropriate application forms in the Tutorial Center, which is located in Building 6, Room 12 (next to the College Library). The Center is open from 9:00 a.m. to 3:00 p.m. Monday through Friday with all tutoring taking place in the Center by appointment.

If you need a tutor or wish to be a tutor, apply at the Tutorial Center or contact Albert Archuleta, Tutorial Coordinator.

CONTINUING EDUCATION FOR HEALTH PROFESSIONALS

Cañada College offers courses, lectures, conferences, and workshops which comply with the continuing education requirements of California's Board of Registered Nursing. Enrollment is open to all registered and licensed vocational nurses. A certificate of verified units/hours is issued to each participant upon completion of the offering. Cañada's BRN Provider Number is 03180.

Courses which meet requirements for nursing home administrators relicensure in California are also available. A BENHA Provider Number is pending for Fall, 1987. For further information, call Ext. 241.

COOPERATIVE ADMISSIONS PROGRAM

As you know, the University of California, Berkeley, and Cañada College have worked together to create a unique opportunity to enable students to study and complete their lower division requirements for transfer. At the end of two years, students may transfer to Berkeley with a guarantee of admission to the College of Letters and Science in a non-impacted major, if they have met all necessary conditions.

Even though you are part of this special program, for the next two years you are in every way a community college student. We urge you to take advantage of this unique campus opportunity. Also take advantage of the opportunities we have to offer as you complete your lower division coursework in preparation for transfer to the University of California. The counselors here will enjoy participating in the program with you.

STUDENT SERVICES DIRECTORY

Cañada has a commitment to extend educational opportunity to all members of the community and implements this philosophy by means of various programs, services and facilities at the College. Most administrative offices are open 8 a.m. to noon and 1 p.m. to 4:30 p.m., Monday through Friday. It is recommended that you make an appointment in advance or call for specific hours of operation: (415) 364-1212 (8 a.m. to 4:30 p.m.); (415) 364-1213 (4:30 to 9 p.m., Monday through Thursday).

Student Services	Bldg/Rm.	Phone Ext.	Student Services	Bldg/Rm.	Phone Ext.
Admissions & Records (Registrar)	8-215	226,7,8	Scholarship Office	8-306A	234,5
Associated Students of Cañada College	5 Cafeteria	364	Security Office (Parking Enforcement)	8-305	270,1,2
Audio/Visual (Media Learning Center)	5-105	348,9	Special Programs & Services	8-211	263,4
Basic & Applied Sciences Division	18-109	291,2	Student Activities (Special Programs & Services)	8-211	263,4
Basic Skills Lab	5-105	304,430	Student Government (Associated Students)	5 Cafeteria	364
Bookstore	2	313,4 or 367-1774	Student Newspaper (Long Valley Gazette)	18-106	282,336,7
Box Office	8-305	363-1516	Telephone Switchboard/Directory Assistance	8-203	'O'perator or 364-1212
Business Operations/Cashier	8-305	270,1,2	Theatre Manager (Main & Flex Theatres)	3-132	316,336,7
Business/Social Sciences Division	13-105	201,2	Transcript Requests (Admissions & Records)	8-215	226,7,8
Business Skills Lab	13-217	201,2	Transportation		
Cafeteria	5	343	SAMTRANS Bus Schedules/Passes	8-211	263,4
Career Planning & Placement	5-204	452	Rediwheels (Handicapped)	3-103	489,490
Cashier/Business Operations	8-305	270,1,2	Tutorial Center	6-12	357,402
Computer Lab	5-105	304,430	Veteran's Assistance (Admissions & Records)	8-215	241,2 or 364-1213(eve)
Cooperative Agencies Resources for Education (CARE) Childcare Program	6-13	300,1,2	Vice President's Office	8-304	234,5
Cooperative Education/Work Experience Program	5-208	367-8	Visitor's Parking Permits (Business Operations)	8-305	270,1,2
Counseling Office	5-215	385,209	Work-Study Grant Program (Financial Aid)	5-207	307,8
Disabled (Handicapped) Student Program	3-103	489,490	Writing Lab	18-117	291,2
English (ESL) Institute	13-121	412			
Evening College Assistance	8-215	364-1213			
Extended Opportunity Programs & Services/EXCEL	6-13	300,1,2			
Facilities Usage/Rental	8-305	270,1,2			
Financial Aid	5-207	307-8			
Fines/Fees Owed (Cashier)	8-305	270,1,2			
Foreign Student Assistance (Admission)	8-215	231,2			
(Counseling)	8-215	209,385			
Handicapped Enabler Services	3-103	489,490			
Health Center	5-213	309			
Housing (Off Campus Only) Information	8-211	263,4			
Humanities Division	3-204	336,7			
Information Desk	8-215	378,9			
Language Lab (Media Learning Center)	5-105	304,430			
Library	6-2	267,8			
Lost & Found	8-211	263,4			
Management & Training Institute	13-106	219,339			
Math Lab	5-105	304,430			
Media Learning Center	5-105	348,9			
Outreach & Recruitment (Spanish-Speaking Assistance)	13-120	386			
Peer Counseling	5 Cafeteria	420			
Physical Education Office	1-208	341,2			
Placement Testing (English & Math)	3-205	336,7			
President's Office	8-312	238,9			
Psychological Services	5-216	455			
Public Information	8-204	340			
Refunds (Registration Fees)/Cashier	8-305	270,1,2			
Reimbursement (Vending Machines)	8-211	263,4			



8 OFFICE OF ADMISSIONS & RECORDS

The Office of Admissions and Records is designed to help new and continuing students in admission, registration, and student welfare. As a means of fulfilling these responsibilities, the Registrar has responsibility to:

- Determine admission eligibility
- Provide class program registration
- Process transcripts
- Process grades
- Conduct institutional research
- Certify eligibility for the A.A. and A.S. and certificate programs
- Process transfer credits from other colleges

The Registrar is also administratively responsible for the:

- Veteran's Program
- International Student's Program
- Health and psychological services

ELIGIBILITY REQUIREMENTS FOR ADMISSION OF OF STUDENTS

California Residents

A California resident, for purposes of attendance at a community college, is a person who has resided in the state for more than one year immediately preceding the first day of classes.

Applicants who have immigrant status must reside in California for more than one year after the date stamped on their visa to be considered residents of the state.

Any California resident applying for admission to Cañada College must meet one of the following qualifications:

- Be a graduate of a high school.
- Be a non-high school graduate, 16 or 17 years of age, who has in his/her possession at the time of registration one of the following:

— Formal certificate from California State Office of Education which indicates the student has passed the High School Proficiency Examination.

— G.E.D., California High School Equivalency Certificate, with an average of 55 or higher for all tests.

— A formal, written document from the student's high school district indicating he/she is **exempted** from any further high school attendance.

- Be 18 years of age or older and, in the opinion of the President of Cañada College, be capable of profiting from the instruction offered.
- Be a 9th, 10th, 11th or 12th grade high school student whose admission as a part-time student is recommended by his/her high school principal and approved by the President of the College.

Non-resident Students

Out-of-state residents may qualify for admission to Cañada College by meeting the following requirements:

- Be a graduate of a high school.
- Be 18 years of age or older and, in the opinion of the President of the College, capable of profiting from the instruction offered.
- Have an academic record or test scores which indicate a potential for success in a credit program of the College.

- Be a non-high school graduate, 16 or 17 years of age, who has passed the California High School Proficiency Examination or completed the G.E.D. examination series with an average of 55 or more for all tests.

Foreign Students

Foreign students may qualify for admission to Cañada College by meeting the following requirements:

- Have completed the equivalent of an American high school education with a "B" (3.0) average.
- Demonstrate sufficient command of English to profit from instruction at the College. A minimum score of 450 on the T.O.E.F.L. is required.
- Present evidence that they have the necessary funds to take care of tuition and all living expenses while attending Cañada College. Tuition is \$91.00 per unit.
- Foreign students unable to demonstrate sufficient command of English or who have scored less than a minimum of 450 on the T.O.E.F.L. may be admitted but will be required to enroll in intensive English courses.
- Provide evidence prior to registration of medical and hospitalization insurance coverage or must enroll in the plan provided for foreign students by the insurance carrier approved by the San Mateo County Community College District.

Non-United States citizens who are not on student visas and who reside in San Mateo County may enroll in Cañada College as part- or full-time students. The student must meet the general admission requirements for foreign students, and in addition must present his/her passport with evidence that the passport and visa are dated to cover the semester during which he/she wishes to enroll. All such students will be required to pay non-resident tuition at the rate of \$91.00 per unit.

Transfer Students

Students transferring from another college or university may take classes at Cañada College. Students who have been dismissed by the community college most recently attended will not normally be admitted in the semester immediately following this dismissal. They may be admitted in a subsequent semester and will then be subject to the same regulations which apply to dismissed students at Cañada College.

Students in this category may petition the Academic Standards Committee for immediate reinstatement if dismissal has resulted from unusual circumstances.

ADMISSION PROCEDURES

Students applying to Cañada College who wish to enroll are required to:

- File a written application for admission on forms supplied by the College.
- Take placement tests and/or specific examinations if required. (See schedule of tests on Application for Admission.)
- For those students wishing to enroll in seven or more units in any one semester, two completed transcripts be mailed directly to Cañada College by the high school of graduation (or the high school last attended), and each college attended. If five years have elapsed since high school, no high school transcripts are required.
- For those students wishing to enroll in fewer than seven units in any one semester, no transcripts are required. However, part-time students taking courses toward career preparation or transfer courses to a four-year college or university are required to have transcripts on file for counseling purposes.

Counseling Appointments

Upon completion of admission requirements, all day students who plan to enroll in seven or more units will meet individually or in small groups with a counselor for assistance in program planning prior to registration. Counseling for evening students will be available during in-person registration. At other times counseling is available by appointment or drop-in Monday through Thursday.

REGISTRATION PROCEDURES

Computerized registration takes place prior to each semester. Refer to class schedules for procedures.

Unit Load Limitations

A normal class load is 15 units; students enrolling in 12 or more units are considered full-time. Students are prohibited from taking more than 19 units without special authorization from an assigned counselor.

Fees

All students enrolling in courses in any California Community College will be required to pay \$5.00 per unit (.5—5.5 units) or a flat fee of \$50.00 (6.0 or more units). Summer Session fees are \$5.00 per unit or \$50.00 for 10.0 or more units.

Fees Per Semester

- **Enrollment Fee:** \$5 per unit if taking fewer than 6 units \$50 if taking 6 or more units or 10.0 or more units in Summer Session.
- **Drop Fee:** \$10 per class dropped after September 21 (fall semester) or February 16 (spring semester), or at the end of the second week of any short course. \$20 maximum.
- **Non-resident or Foreign Student Tuition:** \$91.00 per unit
- **Parking Permit required of all students parking on campus:** \$20 per semester \$10 summer session or \$.50 per day
- **Books and Supplies:** \$168 per semester (approximate figure)
- **Returned Check Fee:** \$5 per returned cancelled check.

Enrollment fees and tuition are due prior to the completion of registration. There is a financial aid program at Cañada College which is dedicated to the concept that no individual be denied an education solely for financial reasons. Additional information on financial aid may be found under Financial Aid and Scholarship.

Refund Policy

Enrollment fees shall be refunded in accordance with the following guidelines:

- A student who cancels registration on or before the last day to add semester-length classes shall be entitled to a full refund less a \$10 processing fee.
- A student enrolled exclusively in a short course or courses who cancels his/her registration before the completion of 12% of the class shall be entitled to a full refund less a \$10 processing fee.

(Students will be charged the \$10 processing fee only one time per semester, regardless of the number of transactions.)

Non-resident or foreign student tuition payments shall be refunded in full or in part in accordance with the following guidelines for semester-length classes:

- A student shall be entitled to a full refund if tuition has been collected in error.
- A student who cancels his/her registration prior to the beginning of classes or who officially withdraws from the college prior to Friday of the fourth week of any semester, shall be eligible for a full refund, less a \$60 processing fee.
- A student who officially reduces his/her program prior to Friday of the fourth week of any semester shall be eligible to receive a full refund for the units dropped.
- A student who officially withdraws from the college or reduces his/her program on or after Friday of the fourth week of any semester shall not be eligible for a refund. Exceptions may be authorized by the Vice President in cases of unique or extraordinary circumstances beyond the student's control.
- A student who officially withdraws from Summer Session courses or from short courses shall be eligible for a full refund, less a \$60 processing fee, if registration is cancelled prior to the beginning of classes or prior to the completion of 30% of the period of instruction. Thereafter, the student shall not be eligible for a refund except as may be authorized by the Vice President in cases of unique or extraordinary circumstances, beyond the student's control.

Parking Fees are non-refundable unless the College cancels the student's entire class program.

Refunds are not issued automatically. The student must complete a refund request form and submit proof of payment and appropriate withdrawal forms to the Office of Admissions and Records.

Refunds must be requested in writing at the time of withdrawal. All refunds must be requested within the fiscal year the fees were paid.

Program Changes

Once registration has been completed, the student's program may not be changed unless an add/drop slip is obtained from the student's counselor or the Office of Admissions and Records and the prescribed change-of-program procedure is completed by the student (not the instructor).

A student may not add a new semester-length class after the tenth day of the semester except by written permission of the instructor and the endorsement of the Registrar.

Programs With Overlapping Times

Students may not register in two classes which meet at the same time or have overlapping times. Exceptions to this rule may be approved under extraordinary circumstances. Approval requires rational justification and a documented plan outlining how the student will make up the hours in the class missed.

WITHDRAWAL POLICY

Any student withdrawing from a class must follow established College procedures. The following include important deadlines for withdrawal and explain the relationship between withdrawal and the assignment of a grade by the instructor:

- A student may withdraw from a semester-length class during the first four weeks of instruction and no notation will be made on the student's academic record. In courses of less than a regular semester's duration, a student may withdraw prior to the completion of 30% of the period of instruction and no notation will be made on the student's academic record.

- Thereafter, a student may withdraw from a semester-length class, whether passing or failing, at any time through the last day of the fourteenth week of instruction and a "W" grade shall be authorized after the instructor has been informed. In courses of less than a regular semester's duration, a student may withdraw prior to the completion of 75% of the period of instruction and a "W" grade shall be authorized after the instructor has been informed. A state-mandated drop fee of \$10.00 for each class dropped will automatically be imposed (\$20 maximum).
- The academic record of a student who remains in class beyond the time periods set forth above must reflect an authorized symbol other than "W." However, after the end of the fourteenth week (or after 75% of the period of instruction in courses of less than a regular semester's duration), withdrawal may be authorized in the case of extenuating circumstances. Extenuating circumstances are defined as verified cases of accident, illness or other circumstances beyond the control of the student. In such cases, the student must submit a petition in accordance with established College procedures and must consult with the instructor. Approved withdrawal, under the conditions set forth, shall be recorded as a "W." The \$10.00 drop fee will be imposed for each course dropped (\$20 maximum).
- Any student failing to follow the established withdrawal procedures may be assigned an "F" grade by the instructor.
- Students enrolled only in evening classes should consult the Office of Admissions and Records.
- This withdrawal policy applies to all students who have enrolled in and actually attended at least one class.



UNITS OF WORK AND CREDIT

A "unit" of college credit normally represents one hour weekly of lecture or 3 hours of laboratory, or similar scheduled activity, during one semester.

ACADEMIC RECORD SYMBOLS AND GRADE POINT AVERAGE

Grades from a grading scale shall be averaged on the basis of the point equivalencies to determine a student's grade point average. The highest grade shall receive four points, and the lowest grade shall receive 0 points, using only the following evaluative symbols:

Symbol	Definition	Grade Point
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least satisfactory: C or better — units awarded not counted in GPA)	
NC	No credit (less than satisfactory or failing — units not counted in GPA)	

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

The following non-evaluative symbols are used at Cañada College:

- **I - Incomplete**

This symbol is used in case of incomplete academic work for unforeseeable, emergency and justifiable reasons. Conditions for removal shall be set forth by the instructor in a written record which also indicates the grade assigned in lieu of removal. The student will receive a copy of this record and a copy will be filed by the Registrar. A final grade will be assigned by the instructor when the stipulated work has been completed and evaluated. In the event that the work is not completed within the prescribed time period, the grade previously determined by the instructor will be entered in the permanent record by the Registrar.

An "Incomplete" must be made up no later than one year following the end of the term in which it was assigned. Established college procedures may be utilized to request a time extension in cases involving unusual circumstances.

The "I" shall not be used in the computation of grade point average.

- **IP - In Progress**

This symbol is to be used in the student's permanent record to confirm enrollment and to indicate that the class extends beyond the normal end of the term. It indicates that work is "in progress" and that unit credit and a grade will be assigned when the course is completed.

If a student enrolled in an open-entry, open-exit course is assigned an "IP" grade and does not re-enroll for the subsequent attendance period, the instructor will assign an evaluative symbol to be recorded on the student's permanent record for the course.

The "IP" shall not be used in the computation of grade point average.

- **RD - Report Delayed**

This symbol is used only by the Registrar for the purpose of indicating that there has been a delay in reporting the grade due to circumstances beyond the student's control. It is to be replaced by a permanent symbol as soon as possible.

The "RD" shall not be used in the computation of grade point average.

- **W - Withdrawal**

(See **Withdrawal Policy** on previous page)

- **H - Instructor failed to supply a grade.**

CREDIT/NO CREDIT OPTIONS

Each division of the College may designate courses in which a student may elect to receive a letter grade or be graded on a "Credit/No Credit" basis.

Grade option courses allow student to explore various fields of study and to broaden their knowledge, particularly outside their major field, without jeopardizing their grade point average. Courses in which such an option exists will be so designated by the Division Director in consultation with appropriate members of the division faculty.

Students electing a "Credit/No Credit" option must submit the appropriate form to the Office of Admissions and Records within the first 30% of the term. Changes will not be permitted after this time.

The use of courses graded on a "Credit/No Credit" basis to satisfy major or certificate requirements must be approved by the Division Director in consultation with appropriate members of the division faculty. A maximum of 12 units toward an Associate degree or 6 units toward a certificate may be applied from courses in which the student has elected a "Credit/No Credit" option.

Additionally, each division of the College may determine certain courses in which all students are evaluated on a "Credit/No Credit" basis only. These courses are exempt from the above 12/6 unit limitation.

Four-year colleges and universities vary widely in the number of units of "Credit/No Credit" courses they accept. Students should consult the catalog of the college to which they may transfer for its regulations in this regard.

GRADE REPORTS

Progress reports are available from the faculty 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/her final semester grades, which become a part of his/her permanent record.

CHANGE OF GRADE

An earned grade of A, B, C, D, E, W, CR, NC (or H) may be changed by the instructor within one year due to a "clerical error" on the part of the instructor. Grades cannot be changed on the basis of a student completing course work subsequent to the assignment of the final grade. (See **Academic Record Symbols and Grade Point Average.**)

A.A./A.S. DEGREE AND CERTIFICATE APPLICATIONS

The Office of Admissions and Records processes all petitions and determines eligibility for the "Associate in Arts" and "Associate in Science" Degrees and any certificate programs offered at Cañada College. Eligible graduating candidates should file an application for the appropriate degree and/or certificates and should:

- have completed at least 54 or more semester units to be in candidate status.
- arrange that all transcripts from other colleges be on file with the Office of Admissions and Records prior to the specified deadline (see calendar of events).
- request from the Office of Admissions and Records an evaluation of all college transcripts.

For more detailed eligibility requirements see section on Program Planning.

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. The first two transcripts are free. Each additional transcript costs \$1.00. The college will not normally issue official transcripts directly to a student. Requests are normally processed within 7 working days.

Transfer students who wish to have their academic records from other accredited institutions within the United States evaluated by the Office of Admissions and Records and have those units placed on their permanent record at Cañada College must petition to do so. Upper-division credits completed at a four-year college or university will not be accepted or counted toward an A.A./A.S. Degree or Certificate at Cañada College. Course work completed at a college or university outside the United States will be considered for inclusion on a transfer student's record at Cañada College **only** after the transcript from the foreign institution has been evaluated by an approved agency which is able to provide a translation of the transcript, with subject breakdown and grades. See the Registrar for the names of approved agencies.

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 for a letter grade during that semester at Cañada College with a grade point average of 3.3.

Academic honors are awarded at graduation to students who have attained a 3.3 cumulative grade point average. High honors are awarded to students who have attained a 3.5 (or better) average.



OPEN ENROLLMENT

Every course offered at Cañada College (unless specifically exempted by legal statute) is open for enrollment and participation by any person who has been admitted to the College and who meets the prerequisites of the course, provided space is available.

COURSE REPETITION

A. Repeat for Credit

The Board of Trustees of the San Mateo County Community College District has adopted a policy (District Rules and Regulations, Section 6.12) which permits a student to repeat certain courses for credit a maximum of three times (total of four class enrollments). These courses require increasing levels of student performance or provide significantly different course content each subsequent semester. Such courses will be designated as "may be repeated for credit" in the course description. Courses which are not so designated may not be repeated under this policy. Further information on this policy is available from your College counselor.

B. Grade Alleviation

A student who has received a grade of D, F, or NC in a course taken at a college of the San Mateo County Community College District may, with authorization, repeat the course for purposes of grade alleviation. Under unusual circumstances, a student may petition the Vice President for permission to repeat a course more than once. On petition to the Office of Admissions and Records, the student may have the grade of the repeated course used in computation of the grade-point average. The original grade will remain on the transcript, but will no longer affect the grade-point average. Course repetition completed at colleges of the San Mateo County Community College District will be honored; course repetition involving work completed at a non-district institution may be honored. Students may apply for such consideration to the Office of Admissions and Records. In no case will the unit value of a course be counted more than once. Courses in which the student has received grades other than those of D, F, or NC are not subject to the provisions of this policy.

C. Special Circumstances

Under special educationally justifiable circumstances, repetition of credit courses other than those for which substandard work has been recorded may be permitted. The student must obtain prior written permission before such course repetition will be authorized. Normally, a student may repeat such a course only once. The student should first contact the Division Director, and finally the Registrar's Office for permission to repeat a course more than once. Grades awarded for courses repeated under this provision shall not be considered in calculating the student's grade point average and in no case will the unit value of the repeated course be counted more than once.

ATTENDANCE REGULATIONS

Regular attendance in class and laboratory sessions is an obligation assumed by every student at the time of his/her 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 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.

Students dropped for non-attendance are responsible for any and all drop fees levied.

EMERGENCY LEAVE OF ABSENCE

A student who finds it necessary to withdraw from all enrolled classes at any time after registration must obtain a petition for permanent leave of absence. This petition may be obtained from the Office of Admissions and Records or the Counseling Center. It is the student's responsibility to complete the petition process. The permanent leave of absence shall only be used when circumstances beyond the student's control force a complete withdrawal from all classes. A drop fee of \$10 will be imposed for each class dropped (\$20 maximum).

A student absent 5 days or more with a medical problem should notify the Health Center. Your instructors and counselors will be given the information.

ACADEMIC RENEWAL POLICY

A maximum of two semesters and one summer session of substandard work (less than a 2.0 grade point average), not reflective of the student's present scholastic level of performance, may be alleviated and disregarded in the computation of grade point average under the following conditions:

- A period of at least three years must have elapsed since the work to be alleviated was completed.
- The students seeking alleviation must have completed 9 units of work with a 3.5 cumulative grade point average, or 15 units with a 3.0 cumulative grade point average, or 21 units with a 2.5 cumulative grade point average, or 24 units with a 2.0 cumulative grade point average since the work to be alleviated was completed.
- A semester or quarter is defined as all work attempted during a single academic term. The terms need not be consecutive.
- The substandard work being alleviated may have been completed at any college or university; however, the work upon which the application for alleviation is based must be completed at one of the district colleges.

The academic renewal policy will ordinarily be applied only when alleviation of prior work is necessary to qualify a student for admission to a program or transfer to another institution or for completion of a certificate program, or for graduation from the college.

Determination of the applicability of this policy will be made only following formal application to the Office of Admissions and Records.

When academic work is alleviated, the permanent record shall be properly annotated in a manner to insure that all entries are legible and that a true and complete record is maintained.

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). If a student undertakes 12.5 units in one semester and 15.5 in a second semester, his or her cumulative units are 28, requiring a grade point level of 56. (Example: $56 \div 28 = 2.00$ GPA.)

Any grade point total less than twice the attempted units is regarded as deficient. (Example: $55 \div 28 = 1.96$ GPA)

Cañada College Credit/No Credit courses will not affect a student's grade point deficiency.

STANDARDS FOR PROBATION

- A student will be placed on academic probation under the following criteria:

1. **Academic probation based on grade point average:** A student who has attempted at least 12 semester units, as shown by the official cumulative record, shall be placed on academic probation if the student has earned a grade point average below 2.0 in all units which were graded on the basis of the grading scale described above.

2. **Academic probation based on failure to maintain satisfactory progress:** A student who has enrolled in a total of at least 12 semester units, as shown by the official cumulative record, shall be placed on academic probation when the percentage of all units in which a student has enrolled for which entries of W, I, and NC are recorded reaches or exceeds 50 percent.

- The two probationary criteria described above will be applied in such a manner that a student may be placed on probation under either or both systems, and subsequently may be dismissed under either or both systems.
- A semester in which a student completes an official "Leave of Absence" will not be included in the tabulation of 2. above.
- A probationary student may petition the Academic Standards Committee, in accordance with college procedures, for removal of his/her probationary status if it has resulted from unusual circumstances beyond the student's control.

REMOVAL FROM PROBATION

- A student on academic probation on the basis of grade point average shall be removed from probation when his/her cumulative grade point average is 2.0 or higher.

- A student on academic probation on the basis of failure to maintain satisfactory progress shall be removed from probation when the percentage of units in this category no longer exceeds 50 percent.

STANDARDS FOR DISMISSAL

- A student in probationary status shall be subject to dismissal if in any two subsequent semesters either or both of the following criteria are applicable:

The student's cumulative grade point average is less than 1.75 in all units attempted.

The cumulative total of units in which the student has been enrolled for which entries of 'W,' 'I,' and 'NC' have been recorded reaches or exceeds 50 percent.

- Normally, a dismissed student must remain out of day and evening classes for one semester before petitioning the Academic Standards Committee for reinstatement.
- A dismissed student may present a written appeal to the Academic Standards Committee requesting immediate reinstatement if dismissal has resulted from unusual circumstances. A registered student making such an appeal should remain in classes until the decision of the Academic Standards Committee is made.

STUDENT NOTIFICATION

The grade reports mailed at the end of each semester will contain a printed notation if the student is on PROBATION or in DISMISSED status. Once a year, at the end of the Spring semester, a letter will be sent to all students who are on PROBATION. Each semester a letter will be sent to all students who are in DISMISSED status.

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 a counselor. If the problem at issue is not satisfactorily resolved, they are encouraged to bring the matter to the attention of the Vice President. The Vice President will assist the student to try to resolve the matter informally. If this does not resolve the matter, the student may file a formal grievance.

ADVANCED PLACEMENT CREDIT

Students who have taken the Advanced Placement Test in English and who have scored 3 may receive credit for English 110. Those who have scored 4 or 5 will receive credit for English 100 and 110. Test scores and a written petition for this credit must be filed in the Office of Admissions and Records.

CREDIT BY EXAMINATION

- Credit may be earned by examination provided:

The student is registered at the College and in good standing, with a GPA of 2.0 or better.

The student can demonstrate that he/she is qualified, through previous training or instruction, to successfully complete such examination.

The course has been so designated by the Division Director in consultation with appropriate members of the division faculty.

The course for which credit is desired is listed on the approved College curriculum list.

The examination has been approved or prepared, administered and graded by faculty and other proper authorities of the College.

- A maximum of 12 units toward an Associate Degree or 6 units toward a certificate may be earned by courses for which credit has been earned by examination.
- Credits earned by examination cannot be used to satisfy the 12 unit residence requirement for the Associate Degree or Certificate of Completion.
- The student's academic record shall be clearly annotated to reflect that credit was earned by examination.
- A student may challenge a course for credit by examination only one time.

HOLDS ON STUDENT RECORDS

Holds will be placed on students' records by the Office of Admissions and Records for fees and any other financial obligations owed to the College. Cañada College will not allow a student to re-register in the College nor will the College forward transcripts or any other records to other institutions for those students with holds on their records. Degrees and certificates will also be held until all outstanding fees have been paid or cleared.

TESTING POLICY STATEMENT

ENGLISH:

An English placement test is required of students who wish to enroll in any English, reading, or writing class. (Exceptions: English 110, 161, 162, and 165.) Students will be exempted from taking the English test only if they present evidence of any of the following:

1. A score of 150 or above on the CSU English Placement Test.
2. Scores of 3, 4, or 5 on either the Language and Composition or the Composition and Literature tests of the College Board Advanced Program.
3. A score of 600 or above on the College Board Achievement Test in English Composition with Essay.
4. A score of 500 or above on the verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal) and 50 or above on the TWSE.
5. A score of 21 or above on the ACT English Usage Test.
6. An acceptable 3-semester-unit or 4-quarter-unit college English course with a grade of C or better.

Normally, exemption by means of numbers 1-5 allows a student to enroll in English 100.

NOTE: During the first two weeks of class, a student's initial placement will be subject to confirmation by means of a writing sample.

MATHEMATICS:

Students enrolling in any mathematics course (including Business Mathematics) must take the Mathematics placement test. This requirement will be waived for students who have passed prerequisite college courses with a grade of C or higher at Cañada College, Skyline College, or College of San Mateo.

PRIVACY RIGHTS OF STUDENTS ANNUAL NOTIFICATION

The Family Educational Rights and Privacy Act (Section 438, Public Law 93-380), as amended, requires educational institutions to provide: access to official educational records directly related to the student; 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 except to those persons and agencies specified by the Act; and that these rights extend to present and former students of the College.

- Education records generally include documents and information related to admissions, enrollment in classes, grades and related academic information.
- The Registrar, Building 8, Room 208, has been designated *Records Officer*, as required by the Act.
- Education records will be made available for inspection and review, during working hours, by presently and formerly enrolled students, within 5 days following completion and filing of a request form with the *Records Officer*.
- If a student wishes to challenge any information in the educational record, the student shall review the matter with the *Records Officer*. During the informal proceedings the *Records Officer* may make such adjustments or changes not constituting interference of integrity of professional entries.
- If these informal proceedings do not settle the dispute with the student's records, the student may submit a request in writing to the *Designated Officer*, the Vice President on forms provided by that office. The *Designated Officer* will then assign the matter within 10 school days to a *Hearing Officer*.
- The *Hearing Officer* will set a date for the hearing, at the conclusion of which he will render his decision to the President of the College who will make the final decision on what action is to be taken.
- The Act provides the College may release certain types of *Directory Information*, unless the student submits in writing to the *Records Officer* that certain or all such information not be released without his/her consent. *Directory Information* at this college includes: (1) student name and city of residence, (2) participation in recognized activities and sports, (3) dates of attendance, (4) degrees and awards received, (5) the most recent previous educational agency or institution attended (6) height and weight of members of athletic teams.
- A copy of the College Policy, The Family Education Rights and Privacy Act, Section 438 (P.L. 93-380) and other pertinent information is available for review and inspection in the *Records Officer's* office, Building 8, Room 208, during normal working hours.

16 FINANCIAL AID & SCHOLARSHIPS

FINANCIAL AID

The financial aid program at Cañada College is dedicated to the concept that no individual should be denied an education solely for financial reasons. Any student applying for admission to the College who has a financial need for assistance is urged to apply for aid.

The Financial Aid Office administers a program of grants, scholarships, loans, and work-study programs which may be awarded to qualified students. We assist and encourage students to apply for California State Scholarships, College Opportunity Grants, Vocational Training Grants, and all other state and local awards.

Awards are based on need and availability of funds; determination of need is based upon a careful analysis of family income and assets, liabilities, number of children, medical expenses, etc. Each application is evaluated on an individual basis with all special and extenuating circumstances taken into consideration.

Students are advised that determination of eligibility is approximately an eight-week process from the time the application is determined complete. Students are strongly encouraged to observe application deadlines. Applications received after the established deadline will be considered subject to the availability of funds.

For detailed information regarding specific assistance programs, students should go to the Financial Aid Office, Bldg. 5, Room 207 between the hours of 8:00 a.m. and 4:30 p.m.

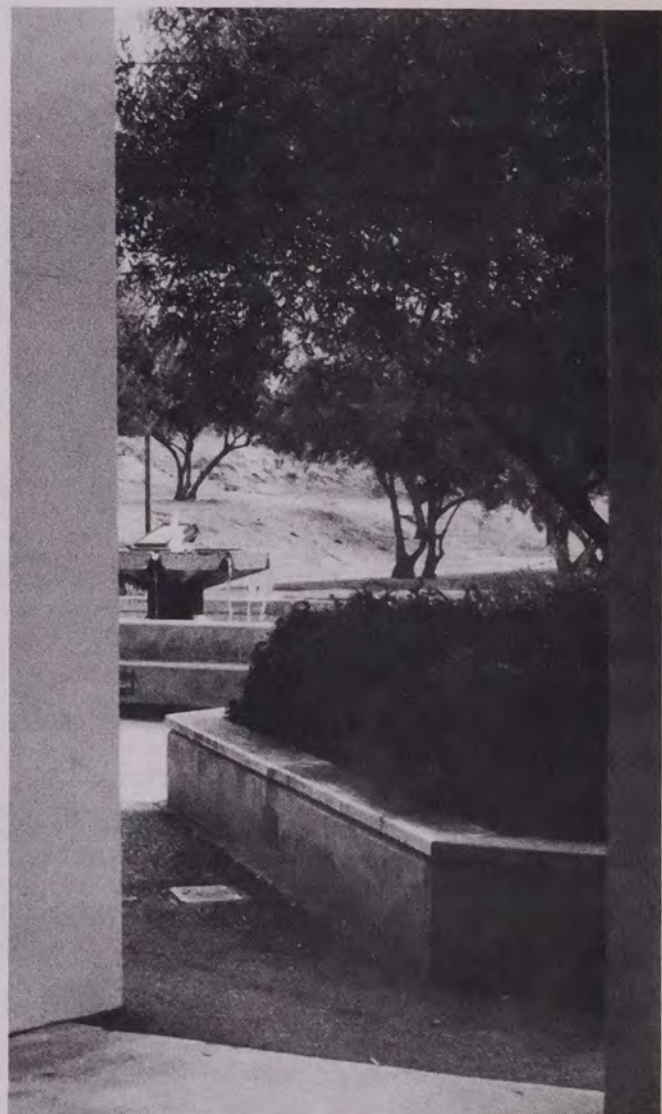
SCHOLARSHIPS

Cañada College provides a scholarship program to recognize and honor outstanding achievement and to provide financial assistance to students in furthering their academic pursuits. A limited number of scholarships, ranging from \$100 to \$500, are available to continuing or transferring Cañada students. All applicants for scholarships will be considered for the general scholarship program. These awards are based on stated criteria of the donor(s), which usually include demonstrated academic achievement and promise, extra-curricular activities, and financial need.

Cañada's Scholarship Committee meets each Spring to review applications and select recipients for the following school year.

Information and applications are available for a number of privately awarded scholarships. Deadlines are usually early in the year.

Requests for applications and information should be directed to the Scholarship Office, Building 8, Room 306A. The application deadline is usually sometime in April for the general scholarship program.



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.

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.

VICE PRESIDENT'S OFFICE

The Vice President's Office is in Building 8, Room 306. The Vice President is responsible for all student conduct and discipline. Please feel free to call him at 364-1212, extension 234, or make an appointment to see him if you have any questions about student rights and/or responsibilities.

Forms for filing student appeals and/or grievances are also available from the Vice President's Office.

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 delinquent in their financial obligations to the College will not receive grade reports or other records of their work until such delinquencies have been adjusted to the satisfaction of the College authorities.



18 SPECIAL PROGRAMS & SERVICES

Special Programs and Services provides services which are designed to serve the unique requirements of those students with particular needs not met through our regular programs. Special Programs and Services recognizes that human personality has many facets and that individual students have many different needs. While no educational program can be all things to all students, Special Programs and Services strives to create an environment which will: (1) Promote educational experiences leading to the realization of personal goals; (2) Develop a sense of responsibility to oneself and to others; (3) Meet the educational and cultural needs of students; and (4) Facilitate an understanding of the past, identification with the present, and competence to meet the future.

Special Programs and Services is where you can begin to unravel your needs, and seek solutions to your educationally-related problems.

C.A.R.E. Program
Disabled Student Program
EXCEL
Extended Opportunity Programs and Services (EOPS)
Housing
Lost and Found
Student Activities
Student Government
Veteran's Affairs
Vocational Educational Services
Women's Re-entry to Education

COOPERATIVE AGENCIES RESOURCES FOR EDUCATION PROGRAM (C.A.R.E.)

C.A.R.E. is a unique educational program geared toward the welfare recipient who desires job-relevant education.

The C.A.R.E. Program is a cooperative effort involving Cañada College, the County Social Services and Employment Development Departments.

C.A.R.E. Support Services include child care, transportation allowances, books, tutoring, counseling, meal allowances and other related services.

Eligible Applicants:

- Single, head of household
- A.F.D.C. recipient (for a minimum of one consecutive year)
- At least 18 years old
- Must pursue vocational training

For additional information, call 364-1212, Ext. 300.

Any further inquiries regarding the C.A.R.E. Program should be directed to Ella Turner Gray, 364-1212, Ext. 263.

COOPERATIVE EDUCATION — WORK EXPERIENCE

Through Cooperative Education, students earn college credit by improving their skills, knowledge, or performance on a paying or volunteer job. Students work with instructors and job supervisors to establish measurable learning objectives appropriate to their jobs. Credit is earned when these stated objectives have been successfully accomplished. You must be enrolled in seven units (including the Cooperative Education course) to earn Cooperative Education credit.

Students who have jobs related to their occupational goals may earn one unit of credit for each 75 hours of paid work (approximately 5 hours per week) with a maximum of four units per semester for a total not to exceed 16 units while enrolled in a community college. Students on volunteer jobs with non-profit organizations may earn one unit of credit for each 60 hours of work (approximately 4 hours per week).

DISABLED STUDENT PROGRAM

The Disabled Student Program offers a wide range of services to students with varying disabilities, including physical and learning disabilities. The program encourages the *active* participation of disabled students by serving as an information center, counseling source and academic referral. Any student with severe mobility or health impairment is encouraged to seek the services of the Disabled Student Program. Through supportive services, an individual can meet his/her academic, social and personal goals while attending Cañada College. Please stop by the Disabled Student Office for more information (Bldg. 3, Room 103).

Some of the programs include:

Adaptive P.E. Program: an individualized approach to Adaptive P.E., as well as offering classes in Weight Training, General Conditioning, and Aquatics for the Disabled.

The focus of the Adaptive P.E. Program is to promote optimum physical fitness by providing the students with the proper knowledge and skills for their lifelong fitness pursuits. Based upon physicians' recommendations, each student is given an individualized exercise program tailored to his/her specific physical abilities and limitations. Improvements in muscular strength, flexibility, balance, coordination, and cardiovascular endurance are the primary goals of the general conditioning classes. Emphasis is also placed upon attaining enjoyable, positive experiences to enhance self-image and social interaction, with independence and mainstreaming (where possible) as a long range goal.

Please call Barbara McCarthy at 364-1212, Ext. 473 or 490 for more information.

Learning Disabilities Program: designed to meet the needs of students with particular learning disabilities. After assessment, an IEP (Individualized Educational Plan) is written and developed with each student. Tutorial assistance is provided, and vocational goal-setting is a top priority for the program. Job skills and career development will be ancillary services to the L.D. population, and special equipment and materials will be available to students. Adults with possible learning disabilities or diagnosed learning disabilities should contact the Learning Disabilities Program at 364-1212 Ext. 237, Glory Bratton.

Supportive Services:

- Individualized counseling, vocational referral and information
- Elevator keys and handicapped parking permits
- Coordination of services with high schools, agencies and the California Department of Rehabilitation
- Readers and Note-Takers
- Audio-visual equipment available—tape recorders, tapes and Lexicon, adapted voice-actuated computer equipment for those students interested in the Computer Information Program
- Special equipment available for the visually impaired student: Braille slates, paper and canes
- Interpreters for the deaf and hard of hearing

Tutoring: individualized tutoring available for students in need of special assistance in academic classes.

Disabled Student Union: an active social and advocacy organization to meet the particular needs of disabled students—a great opportunity to meet other students in the program.

Any further inquiries regarding the Disabled Student Program should be directed to Jane A. Hetrick, Program Specialist for the Disabled (364-1212, Ext. 490).

HANDICAPPED PARKING PERMIT

Physically limited students who drive themselves to campus need to register with the College's Disabled Student Office for authorization to acquire an official Cañada College handicapped permit. These handicapped permits must be re-authorized each semester. There is no charge for a handicapped permit, but it is valid only when displayed with a current semester's parking permit.

Students without official permits who park in handicapped parking spaces will be ticketed by Campus Security.

EXCEL PROGRAM

EXCEL is designed to help minority students work towards a degree, train for a career or develop skills. It also aims to instill students with a sense of identification and to prepare them for assuming responsible positions in their communities and in a larger society.

EXCEL offers supportive services for students' academic needs.

EXCEL IS A SPECIAL OPPORTUNITY. JUST FOR YOU IF YOU HAVE:

- A desire to learn.
- Willingness to work hard.
- A desire to share ideas, feelings, and special talents with others.

You qualify if:

- You are at least 18 years old
or
- Have a high school diploma

For further information regarding EXCEL, call 364-1212, Ext. 300.

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS)

EOPS is a program for economically disadvantaged students. California Community Colleges are required by law to establish programs and services directed to the identification, recruitment, retention, and intellectual and vocational stimulation of students affected by economic, social or language disadvantages.

EOPS is designed to help students work towards a certificate, an A.A. or an A.S. degree, train for a career or transfer to a four-year university. It also aims to instill students with a sense of identification and to prepare them for assuming responsible positions in their communities and in a larger society.

EOPS provides:

- Financial assistance in the form of grants
- Books
- Meal ticket program
- Transportation
- Tutoring
- Help in applying for financial aid
- Transfer assistance
- Counseling

- Guidance Classes
- Basic Skills Classes
- Outreach
- Peer Counselors

You qualify if:

- You are a high school graduate or at least 18 years old.
- You meet the state's definition for low income.

For information, call 364-1212, Ext. 300, Bldg. 8, Room 211.

HOUSING

The Office of Special Programs and Services, Bldg. 8, Room 211, 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.

Contact: Dolores Hicks, 364-1212, Ext. 263, if you have a room or apartment to rent, or need a room.

LOST AND FOUND

If it's been lost, chances are your belongings will turn up in the Special Programs and Services Office. Items left in any of the campus buildings are brought to the office and held for 30 days.

You might also put a notice on the bulletin boards. If your lost item is really valuable, you may put an ad in the school newspaper or the weekly Bulletin.

Contact: Dolores Hicks at 364-1212, Ext. 263, or check with her in Bldg. 8, Room 211, for lost or found articles.

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.

The Office of Special Programs and Services maintains a list of active clubs and organizations.

Student Government: All students enrolled at Cañada College are members of the Associated Students of Cañada College (ASCC). The elected students are the official voice of students on campus: President, Vice President, and ten Senators. They keep students informed about issues on campus, administer student association monies, and represent student interests in the College's governing committees.

Student government is a unique educational opportunity to learn by doing in the world of college governance. It is hard and time consuming work, but students have often testified that it was the most valuable learning experience they had at college, both educationally and socially.

The student government operates under the provisions of the State Education Code and the regulations of the Board of Trustees and the College. It is a vehicle through which students can bring effective change to their college.

Come to the Office of Special Programs and Services if you are interested in becoming a senator or participating in student government, Bldg. 8, Room 211.

Student Publications: The *Long Valley Gazette* 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.

Athletics: Cañada College sponsors sports within the Golden Gate Conference for the benefit of those students interested in team competition.

Cañada College adheres to the California State Athletic Code and the Golden Gate Conference eligibility rules and regulations. Final decisions rest with the Golden Gate Conference Commissioner or the California State Athletic Committee.

The following basic principles pertain to all matters of eligibility:

- 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 a minimum of 12 units of work, and these units can be in any subject matter area including physical education.
- Courses may be repeated and will count towards the minimum 12 units of work required for athletic eligibility.
- Any student desiring athletic eligibility should contact the Director of Athletics.

Intramural Activities: The Physical Education Department, in cooperation with the Student Council, offers a wide range of Intramural Activities for men and women that include volleyball, basketball, softball, tennis, soccer, dance, badminton, bicycling, and weight conditioning.

Additionally, some P.E. activities classes schedule sports days with neighboring community colleges and universities.

Performing Arts: Cañada College offers the following performance groups for your participation: A Cappella Choir, College Singers, Peninsula Master Chorale, Orchestra, San Mateo County Symphony Orchestra, Chamber Orchestra, Musical Theatre, Instrumental Ensemble, and numerous drama presentations, including both faculty and student-directed shows. Interested persons should contact the Humanities Office.

Foreign Travel and Study: A file of current overseas programs for study and travel is kept in the Career Center in Building 5. Check with the Coordinator of Counseling in Building 5, room 214, for further information.

VETERANS' AFFAIRS

The California Board of Education has qualified Cañada College to certify veterans as students under Chapter 34, Chapter 35 (veterans' dependents), Chapter 31 (rehabilitation), Chapter 106, and VEAP recipients. All students, except those under Chapter 31, buy their own books and supplies. Those interested in attending Cañada 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.

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

Eligible veterans have 10 years from the date of separation from active duty to use their educational benefits.

The Office of Veterans' Affairs is located in the Office of Admissions and Records in the Administration Building (Bldg. 8). Please call 364-1212, Ext. 226, for hours of service and further information.

To initiate VA benefits, report to the VA Clerk (Building 8) and bring: (1) two copies of your DD214 (separation papers); (2) one copy of your marriage/divorce certificate; and (3) copies of birth certificates of children.

Veterans who have previously attended college must have official copies of college transcripts on file in the Office of Admissions and Records.

For academic credit purposes, a veteran is defined as an honorably discharged member of the United States Armed Forces who was on active duty for one year or more. Upon presentation of separation or discharge papers, veterans are exempt from the Health Science and Physical Education requirements for the A.A./A.S. Degree.

In addition, veterans who qualify may receive credit for military service schools toward the Associate in Arts/Science Degree upon presentation of proof to the Office of Admissions and Records. They must have completed a minimum of 12 units with a grade-point average of 2.0 at Cañada College. Units of credit for military service (6 units) and military service schools will be recorded on a student's record at the time a petition for graduation is submitted.

WOMEN'S RE-ENTRY TO EDUCATION

Special services are provided for women who have been out of school for some time. An Orientation Day is offered at the beginning of each semester for re-entry women. Members of the College staff will be on hand to answer questions, and Counselors will be available to discuss goals and personal needs and to assist with registration for classes.



Cañada College counselors provide support to any student seeking to implement either a short or long range educational goal. Educational and vocational advising and counseling are the essential services provided by the counseling staff. Counselors assist students to define educational goals, to make realistic plans to achieve goals, to clarify college and transfer requirements, and to evaluate career options and develop clear career objectives. Personal counseling may be provided to students whose personal problems tend to block their educational achievement at the College. This type of counseling is normally short-term and deals with minor impediments to a student's progress. Counselors provide students with appropriate information about school and community resources.

PROGRAM PLANNING AND COUNSELING

Each day student and evening students enrolled in 7 or more units will be assigned a counselor based on the student's declared major or goal. Counselors assist students in planning programs of study, approve the final program for each semester, and are consulted about program changes. Students are encouraged to bring to the counselor's attention employment, financial, or other problems which affect their success in college. The final responsibility for knowing program requirements and enrolling in proper courses rests upon the student. The good relationship between a student and a counselor is essential.

The Counseling Office provides drop-in counseling services as well as scheduled appointments. Each counselor posts weekly appointment schedules on his or her office door for the students' use. A student may request a change of counselor for any reason by seeing the Coordinator of Counseling, Bldg. 5, Room 214.

Evening students enrolled in less than 7 units may use drop-in counseling services at the Career Center between 5:30 and 8:30 p.m. Monday through Thursday. During semester registration periods the student may seek the help of any counselor available in the registration area, although the counselor is not able to review specific student records or take telephone calls. After the second week of the semester, the student may contact the evening counselor by calling 364-1213 after 4:30 p.m. Any student seeking further information on counseling services may call 364-1212, Ext. 385 between 8:00 a.m. and 4:30 p.m.

CAREER AND PERSONAL DEVELOPMENT

The Counseling staff teaches classes in careers and personal development. These classes provide the framework for self-understanding, orientation to college, an exploration and setting of occupational goals, peer counseling, and adjusting to college.

CAREER CENTER

The Career Center provides interest inventories, vocational, and personality assessment to all registered students. Through this service, students receive assistance in assessing their skills and interests so that they may better plan their educational and vocational goals. Students may obtain additional information regarding career counseling services from their counselor or the Career Center.

The Career Center has resources that provide job descriptions and requirements for over 20,000 occupations. These resources include pamphlet files, reference books, college catalogs, files of foreign and overseas programs of study and travel, and EUREKA, the computerized occupational information system. A student may wish to research a possible career choice or college, take career assessment inventories, or discuss goals. The Center is open daily from 8:00 a.m. to 4:00 p.m., and from 5:30 to 8:30 p.m. one evening a week in Bldg. 5, Room 208. Students and visitors are welcome.

HEALTH AND PSYCHOLOGICAL SERVICES

The Health Center is located in the Career Center, Bldg. 5, Room 213. A variety of services are available: information and consultation on health problems, assessment and evaluation of symptoms, first aid, vision screening, blood pressure reading, and health oriented programs; assistance with referrals to Psychological Services, doctors, dentists, clinics, and social agencies; student accident insurance information; peer, group, personal, and interpersonal relationship counseling; and arrangements for emergency care.

All Health and Psychological Services are free of charge and confidential. They are available to both day and evening students on either a drop-in or appointment basis. Health Center, days: 364-1212, Ext. 309, or evenings: 364-1213, Ext. 455 or 309.



PROGRAM PLANNING FOR NON-TRANSFER STUDENTS

This special catalog section is designed to help a student plan his/her 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 in some instances 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 director 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 must be filed in the Registrar's Office during the last semester of attendance.

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 Science requirements.

ASSOCIATE DEGREE (A.A./A.S.) REQUIREMENTS

Graduation from Cañada College with the Associate in Arts or Associate in Science degree is based upon the completion of 60 units of lower-division college work, including the requirements A through F listed below. An application for the degree must be filed in the Office of Admissions and Records during the last semester of attendance (refer to calendar for the college year for deadline).

A. RESIDENCE

A minimum of 12 units 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. COMPETENCY REQUIREMENTS

English

Eligibility for Engl 100, based upon English Placement exam

OR

Completion of Engl 800 or 801 with a grade of C or better
OR

Completion of E.I. 400 with a grade of C or better.

Mathematics

A minimum score of 28 on the SMCCD Math Test #2, or minimum score of 27 on SCAT, or a minimum score of 15 on ACT, or a minimum score of 400 on math SAT

OR

Completion of Elementary Algebra (Math 110, or 111 and 112) with grade of C or better, or any math course with Algebra as a prerequisite with a grade of C or better.

D. MAJOR

A major consists of a minimum of 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 that 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.

E. GENERAL EDUCATION

The purpose of General Education is to foster the preservation, communication, and development of knowledge, the cultivation of wisdom, and the understanding of values that will help ensure the survival of humankind and improve the quality of human life. In support of this purpose, the General Education requirement seeks not only to prepare students who are knowledgeable and well-informed, but to engender in them:

- a taste for learning in a climate of curiosity and wonder,
- an independent and critical cast of mind based on a respect for knowledge,
- a capacity for creativity and imagination,
- a sense of ethical responsibility that includes tolerance, sympathy for humankind, and commitment to improve the quality of life.

Courses which meet the General Education Requirements introduce students to the variety of means through which people comprehend the modern world.

The subject matter presented in these courses is designed to be general, broad, and frequently introductory, rather than specialized. In order to promote these goals, the General Education Requirement incorporates the following curriculum objectives:

- to improve the essential communication skills of listening, speaking, reading, and writing based on analytical thinking,
- to acquire a core of knowledge common to educated persons in our society,
- to acquire broad perspectives on the human experience, through a study of both western and non-western civilizations.
- to gain an understanding of the principles of natural phenomena, technological developments and the effects they will have on society, the insights afforded by the social sciences into the human experience, and the contributions of the humanities to the enrichment of human existence,
- to develop sensitivity to the dilemmas facing humankind by an introduction to key social issues of the contemporary era,
- to develop the knowledge and understanding of the rights, responsibilities and privileges involved in becoming a participating citizen in a democratic, pluralistic society.
- to provide opportunities to gain information which could aid students in making realistic career decisions.

Associate in Arts Degree

21 units minimum

Associate in Science Degree

18 units minimum

AREA I. Language and Rationality**English Composition —**

For A.A. degree, 2 courses, with a minimum of 6 units, Engl 100, 110, 800, E.I. 400

For A.S. degree, 1 course, with a minimum of 3 units, Engl 100, 800, E.I. 400

Communication and Analytical Thinking (3 units required)

Bus. 115, Comp 151, 155, 162, 170; Engl 165; Math 105, 110, 111, 115, 120, 121, 125, 130, 200, 220, 241, 251, 410; Mus. 132; Phil 103, 200; Spch 100, 120

AREA II. Natural Sciences (3 units required)

Anat 250; Anth 125; Astr 100, 110, 120; Biol 100, 110, 111, 130, 160, 310; Boty 112, 145, 220; Chem 110, 210, 410; Geog 100; Geol 100, 110; HSci 101, 104, 105, 106, 108; H.Ec. 310; Mbio 240; NSci 100; Ocen 100; Paln 110; Phys 120, 210, 250, 405, 481; Psio 260; Zool 210.

AREA III. Humanities (3 units required)

Art 101, 102, 103, 110, 201, 204, 214, 301, 405; Dram 101, 102, 140, 142, 143, 144, 151, 152; Engl 110; Fren 130, 140, 161; Hist 100, 101, 205; Hum. 100; IntD 115, 150, 320, 321, 322; Lit. 101, 111, 115, 141, 142, 143, 144, 151, 152, 200, 231, 232, 233, 251, 252, 301, 302, 341, 422, 431, 441, 455, 461; Mus. 100, 131, 202; Phil 100, 160, 175, 190, 240, 300, 310, 320; Span 130, 140, 161; Spch 111, 112.

AREA IV. Social and Behavioral Sciences

(3 units required)

Anth 105, 110; Econ 100, 102, *230; Geog 110, 120, 150; Hist *102, *201, *202, **310, **315, *421; PISc 150, *205 (Note: Limited to foreign students or recent immigrants), *210, **310; Psc 100, 108, 110, 201, 300; SoSc 100; Soci 100, 105.

*Indicates American Institutions

**Indicates State and Local Institutions for CSU transfers

AREA V. Ethnic Studies (3 units required)

Anth 360, 370; Art 120; Hist 242, 422, 451, 452; Lit. 266, 268, 371, 372, 375; Psc 278; SoSc 250, 260; Soci 141.

F. PHYSICAL EDUCATION

One or more courses for a minimum of 2 units required. This requirement will be waived or modified for students in the following categories:

- Graduates of community colleges, other accredited colleges and universities;
- Veterans with one or more years of service;
- Persons excused for medical reasons.

Waivers other than for the reasons stated herein should be sought through the regular procedures of the College for waiver of any graduation requirement via the Academic Standards Committee.

THE LIBERAL ARTS MAJOR FOR THE ASSOCIATE IN ARTS (A.A.) DEGREE

The Liberal Arts major provides students with a broad foundation of academic knowledge. This flexible major can be taken by students who wish to earn an Associate in Arts degree. The major is also appropriate for the undecided transfer student.

REQUIREMENTS

- Completion of the residency, scholarship, competency, and the Physical Education requirements for the A.A./A.S. degree.
- Completion of a major in liberal arts which consists of a minimum of 18 units.
- Completion of the General Education requirements for the Associate in Arts degree which consists of a minimum of 21 units.

With careful planning and the assistance of a counselor, a student can complete the requirements for an A.A. degree as well as complete the General Education certification for the State University system.

The following requirements combine the 18 units required for the Liberal Arts major and the 21 units required for the General Education section of the Associate in Arts degree. No course will satisfy more than one category or sub-category.

AREA A. BASIC SUBJECTS

15 units minimum (no course will satisfy more than 1 category)

1. **English Composition**—2 courses or 6 units from the following: Engl 100, 110, 800; E.I. 400
2. **Communication and Analytical Thinking**—1 course or 3 units from the following: Bus. 115; Comp 151, 155, 162, 170; Engl 165; Math 105, 110, 111, 115, 120, 121, 125, 130, 200, 220, 241, 251, 410; Mus. 132; Phil 103, 200; Spch 100, 120
3. **English Language and Critical Thinking**—2 courses or 6 units. One course from 3A and one course from 3B:
 - 3A. Spch 100, 120
 - 3B. Engl 165; Phil 103, 200

AREA B. NATURAL SCIENCES

6 units required (no course will satisfy more than 1 category)

1. **Physical and Life Sciences I**—3 units required from the following: Anat 250; Astr 100, 110, 120; Biol 100, 110, 111, 130, 160, 310; Boty 112, 145, 220; Chem 110, 210, 410; Geog 100; Geol 100, 110; HSci 101, 105, 106; H.Ec. 310; Mbio 240; NSci 100; Ocen 100; Paln 110; Phys 115, 120, 210, 250, 405, 481; PSci 101; Psio 260; Zool 210.
2. **Physical and Life Sciences II**—3 units required from the following: Anat 250; Astr 100, 110, 120; Biol 100, 110, 111, 130, 160; Boty 112, 145, 220; Chem 110, 210, 410; Geog 100; Geol 100, 110, 220; Mbio 240; NSci 100; Ocen 100; Paln 110; Phys 120, 210, 250, 260, 405, 481; Psio 260; Zool 210.

AREA C. HUMANITIES

6 units required (no course will satisfy more than 1 category)

1. **Humanities I**—3 units required from the following: Art 101, 102, 103, 110, 201, 204, 214, 301, 405; Dram 101, 102, 140, 142, 143, 144, 151, 152; Engl 110; Fren 130, 140, 161; Hist 100, 101, 205; Hum. 100; IntD 115, 150, 320, 321, 322; Lit. 101, 111, 115, 141, 142, 143, 144, 151, 152, 200, 231, 232, 233, 251, 252, 301, 302, 341, 422, 431, 441, 442, 455, 461; Mus. 100, 131, 202; Phil 100, 160, 175, 190, 240, 300, 310, 320; Span 130, 140, 161; Spch 111, 112.
2. **Humanities II**—3 units required from the following:
 - 2a. **Arts**—Art 101, 102, 103, 110, 120, 201, 204, 214, 301, 405; Dram 101, 102, 140; Hum. 100; Mus. 100, 131, 202.
 - 2b. **Literature**—Dram 142, 143, 144, 151, 152; Engl 110; Lit. 101, 111, 115, 141, 142, 143, 144, 151, 152, 200, 231, 232, 233, 251, 252, 266, 268, 301, 302, 341, 371, 372, 375, 422, 431, 441, 442, 455, 461; Spch 111, 112.
 - 2c. **Philosophy**—Hist 205; Phil 100, 160, 175, 190, 240, 300, 310, 320.

- 2d. **Foreign Language**—Fren 110, 111, 112, 120, 121, 122, 130, 140, 161, 162; Germ 110, 111, 112, 120, 121, 122; Span 110, 111, 112, 120, 121, 122, 130, 140, 161, 162.
- 2e. **Development of Cultures**—Hist 100, 101, 451, 452; SoSc 250, 260.

AREA D. SOCIAL AND BEHAVIORAL SCIENCES

6 units required (no course will satisfy more than 1 category)

1. **Social Sciences**—3 units required from the following: Anth 105, 110; Econ 100, 102, 230; Envr 120; Geog 110, 120, 150; Hist 102, 201, 202, 310, 315, 421; PISc 110, 150, 205 (Note: Limited to foreign students or recent immigrants), 210, 310; Psc 100, 108, 110, 201, 300; SoSc 100; Soci 100, 105.
1. **Social Sciences**—3 units required from the following:
- 2a. **American Institutions**—Econ 230; Hist 102, 201, 202, 242, 421; PISc 205, 210.
- 2a. **State and Local Institutions**—Hist 310, 315; PISc 205, 310.

AREA E. ETHNIC STUDIES

3 units required (no course will satisfy more than 1 category)

1. **Ethnic Studies**—3 units required from the following: Anth 360, 370; Art 120; Hist 242, 422, 451, 452; Lit. 266, 268, 371, 372, 375; Psc 278; SoSc 250, 260; Soci 141.

E LIFE LONG UNDERSTANDING AND SELF DEVELOPMENT

No units required

Biol 310, 312; Fitn 105, 430; H.Ec. 310, 312; HSci 101, 104, 105, 106, 108; Crer 137, 140.

G. ELECTIVES

3 units required

1. Selection of one additional course from Areas A—E listed on the California State University and Colleges General Education Certification sheet.

OCCUPATIONAL PROGRAMS

Associate in Arts Degree or Associate in Science Degree or Certificate Programs

Career Program	Certificate A.A.	A.S.
Business		
Accounting	•	•
Business Administration	•	•
Business/Office Skills		
Administrative Assistant	•	•
Office Skills	•	•
Office Management	•	•
Word/Information Processing	•	•
Microcomputer Applications	•	•
Computer Information Systems	•	•
Early Childhood Education	•	•
Home Economics		
General	•	•
Textiles & Clothing	•	•
Interior Design		
Commercial	•	•
Kitchen & Bath	•	
Residential	•	•
Management		
General	•	•
Public Administration	•	•
Microcomputer Technician	•	•
Ophthalmic Dispensing		•
Paralegal	•	•
Radiologic (X-ray) Technology		•
Travel Industry Career (Tourism)		
Retail	•	
Wholesale	•	
Tourism		•

Students planning to transfer will find general information regarding the state colleges and universities and the University of California in this section. Cañada College offers the lower division requirements for transfer in most majors. Since 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.

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 work at Cañada College. If all requirements have been met, students transferring to higher institutions may graduate after two years of 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. It is important that they consult with their counselors in order to arrange transfer programs.

College catalogs are on file in the Library and the Career Center. 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 transfer institution, the better are their chances for meeting all the requirements. 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 or 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 39 units.

AREA A: Communication in the English Language & Critical Thinking: 9 units
One course required from each sub-area.

A1 ORAL COMMUNICATION Spch 100, 120	<input type="checkbox"/>	A2 WRITTEN COMMUNICATION Engl 100	<input type="checkbox"/>	A3 CRITICAL THINKING Engl 165 Phil 103 Phil 200	<input type="checkbox"/>
MINIMUM				9	TOTAL <input type="checkbox"/>

AREA B: Physical Universe & Its Life Forms: 9 units
One course from Physical Science (B1), Life Science (B2), and Math Concepts (B4).
Must include 1 lab course from Area B1 or B2 (indicated with *).

B1 PHYSICAL SCIENCE Astr 100, 110, 120, Chem 110*, 210*, 410* Geog 100 Geol 100*, 110, NSci 100 Ocen 100 Phys 120, 210*, 250*, 260*, 405, 481*	<input type="checkbox"/>	B2 LIFE SCIENCE Anat 250*, Anth 125 Biol 100, 110*, 111*, 130*, 160 Boty 112*, 145*, 220* Mbio 240* NSci 100 Paln 110 Psio 260* Zool 210*	<input type="checkbox"/>	B3 LAB COURSE	<input type="checkbox"/>
B4 MATH CONCEPTS Math 105, 120, 121, 125, 130, 200, 220, 241, 251				<input type="checkbox"/>	
MINIMUM				9	TOTAL <input type="checkbox"/>

26 TRANSFER PROGRAMS

AREA C: Arts, Literature, Philosophy & Foreign Language: 9 units

Three courses to be selected from at least two sub-areas.

† indicates Ethnic Studies courses.

C1 ARTS

Art 101, 102, 103, 110, 120†,
201, 204, 214, 301, 405
Dram 101, 102, 140
Hum 100
Mus. 100, 131, 202

C2 LITERATURE

Dram 142, 143, 144, 151, 152
Engl 110
Lit. 101, 111, 115, 141, 142,
143, 144, 151, 152, 200,
231, 232, 233, 251, 252,
266†, 268†, 301, 302, 341,
371†, 372†, 375†, 422, 431,
441, 442, 455, 461
Spch 111, 112

C3 PHILOSOPHY

Hist 205,
Phil 100, 160, 175, 190, 240,
300, 310, 320

C4 FOREIGN LANGUAGES

Fren 110, 111, 112, 120, 121,
122, 130, 140, 161, 162
Germ 110, 111, 112, 120,
121, 122
Span 110, 111, 112, 120, 121,
122, 130, 140, 161, 162

C5 DEVELOPMENT of CULTURES

Hist 100, 101, 451†, 452†
SoSc 250†, 260†

MINIMUM 9

TOTAL

AREA D: Social, Political & Economic Institutions: 9 units

(Must include one course from D1 AND one course from D2 to satisfy the U.S. History, Constitution & American Ideals requirement).

*Fulfills American Institutions and State & Local Institutions ONLY for foreign students.

†Ethnic Studies courses.

D1 AMERICAN INSTITUTIONS

Econ 230
Hist 102, 201, 202, 242†, 421
PISc 205*, 210

D2 STATE/LOCAL INSTITUTIONS

Hist 310, 315
PISc 205*, 310

D3 SOCIAL INSTITUTIONS

Admj 126, 360
Anth 105, 110, 360†, 370†,
ECE. 212
Econ 100, 102
Envr 120
Geog 110, 120, 150
Hist 422†

PISc 110
Psyc 100, 108, 110, 201, 202,
212, 223, 278†, 300, 340,
Soci 100, 101, 105, 126,
141†, 360
SoSc 100, 122, 392

MINIMUM 9

TOTAL

AREA E: Lifelong Understanding & Self-Development: 3 units

Biol 310, 312,
Crer 137, 140
Any Physical Ed. Course,
except P.E. 690

H.Ec. 310, 312
HSci 101, 104, 105, 106, 108

MINIMUM 3

TOTAL

LOWER DIVISION TOTAL 39 TOTAL

FULFILLED

PARTIALLY FULFILLED

UPPER DIVISION TOTAL 9

FOUR-YEAR INSTITUTION TOTAL 48

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

- Accounting 100, 121, 131, 171, 190, 680, 690, 695
- Administration of Justice 101, 104, 126, 350, 360, 370, 670, 680, 690, 695
- Anatomy 250, 680, 690, 695
- Anthropology 105, 110, 125, 360, 370, 680, 690, 695
- Art 101, 102, 103, 110, 120, 190, 201, 202, 204, 205, 207, 214, 221, 222, 231, 232, 234, 235, 241, 301, 303, 305, 311, 312, 320, 322, 324, 326, 351, 356, 357, 359, 405, 406, 411, 424, 680, 690, 695, 800
- Astronomy 100, 110, 120, 680, 690, 695
- Biology 100, 110, 111, 130, 160, 310, 312, 680, 690, 695
- Botany 112, 145, 220, 680, 690, 695
- Business 100, 101, 103, 115, 131, 150, 180, 201, 235, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 413, 414, 415, 416, 420, 421, 430, 431, 432, 434, 436, 438, 450, 670, 690, 695
- Career & Personal Development 137, 140, 401, 410, 680
- Chemistry 110, 210, 220, 231, 232, 250, 410, 420, 680, 690, 695
- Computer Science 103, 115, 151, 155, 157, 162, 170, 172, 190, 275, 670, 680, 690, 695
- Cooperative Education 670
- Drama 101, 102, 106, 140, 142, 143, 144, 151, 152, 200, 201, 202, 203, 208, 209, 210, 211, 220, 230, 233, 248, 261, 262, 263, 264, 300, 305, 338, 680, 690, 695
- Early Childhood Education 191, 210, 211, 212, 230, 240, 241, 243, 311, 313, 670, 680, 681, 682, 690, 695
- Economics 100, 102, 230, 680, 690, 695
- Engineering 100, 200, 220, 230, 260, 270
- English:
- English 100, 110, 161, 162, 165, 181, 680, 690, 695
 - Literature 101, 111, 115, 141, 142, 143, 144, 151, 152, 191, 200, 231, 232, 233, 251, 252, 266, 268, 301, 302, 341, 371, 372, 375, 422, 431, 441, 442, 455, 461, 680, 690, 695
 - Reading 420
 - English Institute 400
- Environment 120, 680, 690, 695
- French 110, 111, 112, 120, 121, 122, 130, 140, 161, 162, 196, 197, 680, 690, 695
- Geography 100, 110, 120, 150, 680, 690, 695
- Geology 100, 110, 680, 690, 695
- German 110, 111, 112, 120, 121, 122, 196, 680, 690, 695
- Health Science 101, 103, 104, 105, 106, 108, 680, 690, 695
- History 100, 101, 102, 201, 202, 205, 242, 310, 315, 421, 422, 451, 452, 650, 680, 690, 695
- Home Economics 110, 111, 112, 113, 115, 116, 117, 118, 120, 122, 123, 124, 125, 127, 128, 129, 150, 151, 307, 310, 312, 320, 410, 416, 420, 680, 690, 695, 830
- Humanities 100, 680, 690, 695
- Interior Design 115, 125, 146, 147, 148, 150, 156, 160, 170, 180, 245, 250, 260, 270, 271, 274, 276, 278, 320, 321, 322, 330, 350, 351, 354, 355, 360, 411, 450, 670, 680, 681, 682, 695
- Journalism 110, 120, 220, 230, 300, 680, 690, 695
- Library 100
- Life Science 670
- Management 100, 105, 120, 130, 136, 137, 215, 220, 225, 235, 240, 281, 282, 283, 670, 680, 690, 695
- Mathematics 105, 120, 121, 125, 130, 200, 219, 220, 241, 242, 251, 252, 253, 270, 275, 410, 680, 690, 695
- Microbiology 240, 680, 690, 695
- Music 100, 101, 102, 103, 131, 132, 133, 134, 135, 150, 170, 190, 202, 295, 301, 302, 303, 304, 305, 306, 307, 308, 321, 322, 323, 324, 325, 326, 327, 328, 341, 342, 343, 344, 345, 346, 347, 348, 361, 362, 363, 364, 365, 366, 367, 368, 371, 372, 373, 374, 391, 392, 393, 394, 401, 402, 403, 404, 405, 406, 407, 408, 430, 440, 441, 442, 443, 444, 445, 461, 462, 463, 464, 471, 472, 473, 474, 481, 482, 483, 484, 490, 491, 492, 493, 494, 495, 496, 680, 690, 695
- Natural Science 100, 680
- Oceanography 100, 680
- Paleontology 110, 680, 690, 695
- Paralegal 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260
- Philosophy 100, 103, 160, 175, 190, 200, 240, 300, 310, 320, 650, 680, 690, 695
- Physical Education:
- Adaptive 350, 351, 352, 353, 354, 680
 - Aquatics 100, 680
 - Combatives 401, 680
 - Dance 111, 112, 115, 130, 131, 132, 140, 143, 330, 350, 400, 680
 - Fitness 101, 105, 140, 161, 165, 201, 204, 315, 430, 431, 680
 - Individual 121, 124, 161, 164, 166, 251, 252, 253, 254, 255, 256, 680
 - P.E. 115, 116, 200, 680, 690, 695
 - Team 101, 102, 105, 110, 111, 115, 141, 142, 143, 151, 152, 153, 170, 171, 172, 680
 - Varsity 100, 101, 110, 111, 140, 141, 150, 151, 170, 171, 680
- Physical Science 670, 680, 690, 695
- Physics 120, 210, 220, 250, 260, 270, 405, 481, 680, 690, 695
- Physiology 256, 260, 680, 690, 695

Political Science 150, 205, 210, 310, 680, 690, 695
 Psychology 100, 108, 110, 201, 202, 210, 211, 212, 221, 223, 278, 300, 340, 370, 391, 680, 690, 695
 Radiologic Technology 420, 430, 495
 Real Estate 100
 Russian 110, 111, 112
 Social Science 100, 122, 200, 250, 260, 392, 670, 680, 690, 695
 Sociology 100, 101, 104, 105, 120, 126, 141, 360, 680, 690, 695
 Spanish 110, 111, 112, 120, 121, 122, 130, 140, 161, 162, 196, 680, 690, 695
 Speech Communication 100, 111, 112, 120, 127, 130, 140, 680, 690, 695
 Tourism 100, 101, 103, 104, 200, 670, 680, 690, 695
 Zoology 210, 680, 690, 695

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 Cañada. 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 Cañada.

Not all Cañada 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)

Accounting 121 (4-5); 131 (4-5)
 Administration of Justice 101 (3); 104 (3); 126 (3) (No credit if taken after Spring 1988)
 Anatomy 250 (W/Lab 4)
 Anthropology 105 (3); 110 (3); 125 (3); 360 (3); 370 (3); 680, 690, 695 (See Independent Study)
 Art 101 (3); 102 (3); 103 (3); 110 (3); 120 (3); *201 (3); *202 (3); *204 (3); *205 (3); *207 (3); *214 (3); *221 (3); *222 (3); *231 (3); *232 (3); †234 (3); †235 (3); †241 (3); †301 (3); †303 (3); †305 (3); *320 (3); *326 (3); †351 (3); †405 (3); †406 (3); †411 (3); *424 (3); **680, **690, **695 (See Independent Study), †800 (3) (No credit if taken after Spring 1988)
 *Any or all of these courses combined: maximum credit allowed, 16 units

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

*Maximum credit allowed for 424, one course (within '+' limit)

**Depending upon course content, apply appropriate limitation

Astronomy 100 (3); 110 (3); 120 (3) (No credit if taken after Spring 1988); 680, 690, 695 (See Independent Study)

Biology *100 (3); 110 (W/Lab 4); 111 (W/Lab 3); (No credit if taken after Spring 1988) 130 (W/Lab 4); 135 (1.5); 160 (3); 310 (3); 680, 690, 695 (See Independent Study)

*No credit for 100 if taken after a college course in Biological Science

Botany 112 (W/Lab 3) (No credit if taken after Spring 1988); 145 (W/Lab 3); 220 (W/Lab 5); 680, 690, 695 (See Independent Study)

Business 201 (3)

Chemistry *110 (3) (Lab 1) (No credit if taken after Spring 1988); *192 (W/Lab 1-4); †210, †220 (W/Lab 5, 5); 231 (W/Lab 5); 232 (W/Lab 4); 250 (W/Lab 4); †410, †420 (W/Lab 4, 4) (No credit if taken after Spring 1988); 680, 690, 695 (See Independent Study)

*192 must be taken for a **minimum** of 3 units to transfer 110 and 192 combined: maximum credit allowed, one course. No credit for 110 or 192 if taken after 210 or 410.

†210, 220 and 410, 420 combined: maximum credit allowed, one series.

Computer Science 103 (3); *151 (3); *155 (3); *157 (3); *162 (3); *170 (3); 190 (3); *275 (3); ; 680, 690, 695 (See Independent Study)

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

Cooperative Education 670, maximum credit allowed: 6 units total in appropriate subject areas contingent upon review of course outline by a UC Campus.

Drama 101 (3); 102 (3); †106 (3); 140 (3); 142 (3); 143 (3); 144 (3); 151, 152 (3, 3); *200 (3); *201, 202, 203 (3, 3, 3); *208, 209, 210, 211 (2 each); *230 (3); †248 (2); †261, †262 (3, 3); †263, †264 (3, 3); †300 (.5-3); †305 (.5-3); †338 (3); *680, *690, *695 (See Independent Study)

*Any or all of these courses combined with Speech 130: maximum credit allowed, 12 units.

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

**Depending on course content, apply appropriate limitation.

Economics 100, 102 (3, 3); 230 (3); 680, 690, 695 (See Independent Study)

*Engineering 100 (2); 200 (2); 220 (2); 230 (3); 260, 260L (3/Lab 1); 270 (3); 680, 690, 695 (See Independent Study)

*Maximum credit allowed, 16 units

English:

English 100 (3); 110 (3); 161, 162 (3, 3) (No credit if taken after Spring 1988); 165 (3)

Literature 101 (3); 111 (3); 115 (3); 141 (3); 142 (3); 143 (3); 144 (3); 151 (3); 152 (3); 200 (3); 231, 232, 233 (3, 3, 3); 251 (3); 252 (3); 266 (3); 268 (3); 301, 302 (3, 3); 341 (3); 371 (3); 372 (3); 375 (3); 422 (3); 431 (3); 441, 442 (3, 3) (No credit if taken after Spring 1988); 455 (3); 461 (3); 680, 690, 695 (See Independent Study)

Environment 120 (3); 680, 690, 695 (See Independent Study)

French 110 (5); *111, *112 (3, 3); 120 (5); †121, †122 (3, 3); 130 (5); 140 (3); 161, 162 (3, 3); 680, 690, 695 (See Independent Study).

*111 and 112 combined is equivalent to 110: maximum credit allowed, 5 units.

†121 and 122 combined is equivalent to 120: maximum credit allowed, 5 units.

Geography 100 (3); 110 (3); 120 (3); 150 (3); 680, 690, 695 (See Independent Study)

Geology *100 (3); 110 (3); 680 & 695 (See Independent Study)

German 110 (5); *111, *112 (3, 3); 120 (5); †121, †122 (3, 3); 680, 690, 695 (See Independent Study)

*111 and 112 combined is equivalent to 110: maximum credit allowed, 5 units.

†121 and 122 combined is equivalent to 120: maximum credit allowed, 5 units.

Health Science *101 (1) (No credit if taken after Spring 1988); 103 (1); 106 (1); *104 (1); *105 (1); *106 (1) (No credit if taken after Spring 1988);

*Any or all of these courses combined: maximum credit allowed, 1 course

History 100, 101 (3, 3); *102 (3); *201, *202 (3, 3); 205 (3); 242 (3); 310 (3); 421 (3); 422 (3); 451, 452 (3, 3); 650 (1-3); 680, 690, 695 (See Independent Study)

*102 & 201, 202 combined: no credit for 102

Home Economics 113 (3); *115 (3) (No credit if taken after Spring 1988); *118 (3); 310 (3)

*maximum credit allowed, 2 courses.

Humanities 100 (3); 680, 690, 695 (See Independent Study)

Journalism 110 (3); 120 (3)

Maximum credit allowed, 1 course

Library Science 100 (1)

Mathematics 125 (3); 200 (4); †219 (5) (maximum credit allowed: 4 units); †220 (3); *241, *242 (5, 5); *251 (5); *252, 253 (5, 5); 270 (3); 275 (3); 680, 690, 695 (See Independent Study)

*241, 242 combined with 251, 252: maximum credit allowed, 2 courses.

†219 and 220 combined: maximum credit, 1 course

Microbiology 240 (W/Lab 5); 690, 695 (See Independent Study)

Music 100 (3); 101, 102, 103 (2, 2, 2); 131, 132, 133, 134 (3, 3, 3); 135 (2); 150 (2-3); *170 (1); 202 (3); *295 (1); *301, 302, 303, 304 (2 each); *305, 306, 307, 308 (2 each); *309 (1); *321, 322, 323, 324 (1 each); *325, 326, 327, 328 (1 each); *341, 342, 343, 344 (1 each); *345, 346, 347, 348 (1 each); *361, 362, 363, 364 (1 each); *365, 366, 367, 368 (1 each); *371, *372, 373, 374 (1 each); *391, 392, 393, 394 (1 each); *401, 402, 403, 404 (1 each); *405, 406, 407, 408 (1 each); *430 (2); *440 (1); *441, 442, 443, 444 (2 each); *445 (1); *461, 462, 463, 464 (1 each); *471, 472, 473, 474 (1 each); *481, 482, 483, 484 (2 each); *490; *491, 492, 493, 494 (1 each); *495 (1-3); *496 (.5) (No credit if taken after Spring 1988); **680, **690, **695 (See Independent Study)

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

**Depending on course content, apply appropriate limitation.

Natural Science 100 (3)

Oceanography 100 (3); 690, 695 (See Independent Study)

Paleontology 110 (3); 680, 690, 695 (See Independent Study)

Philosophy 100 (3); 103 (3); 160 (3); 175 (3); 190 (3); 200 (3); 240 (3); 300 (3); 310 (3); 320 (3); 650, 680, 690, 695 (See Independent Study)

Physical Education:

Adaptive *350-354 (.5-1.5 each)

Aquatics *100 (1.5 each)

Combatives *401 (1.5); *680 (1-3 each); 695 (See Independent Study)

Dance † 111 (2); † 112 (2); † 115 (2); † 130 (2); † 131 (1); † 132 (2); † 140, 143 (1-1.5 each); *330 (1); *350 (1); † 400 (2); † 680, † 690, 695 (See Independent Study)

Fitness *101 through 315 (1-3 each); 680, 695 (See Independent Study)

Individual *121 through 303 (1-3 each); 680, 695 (See Independent Study); 680, 695 (See Independent Study)

Theory †115 (2) (No credit if taken after Spring 1988); †116 (.5-1.5) (No credit if taken after Spring 1988); *200 (.5-1); †300 (2)

Team Sports *101 through 172 (1-2.5 each); 680, 695 (See Independent Study)

Varsity *100 through 341 (1-2 each); 680, 695 (See Independent Study)

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

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

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

Physical Science 680, 690, 695 (See Independent Study)

Physics †120 (3); *210, *220 (W/Lab 4, 4); *250, 260, 270 (W/Lab 4, 4, 4); 680, 690, 695 (See Independent Study)

*210, Lab + 250: deduct 3 units from 210, Lab

210, Lab + 270: deduct 1 unit from 210, Lab

220, Lab + 260: deduct 2 units from 220, Lab

220, Lab + 270: deduct 2 units from 220, Lab

†No credit for 120 if taken after 210 or 250

Physiology *256 (W/Lab 4); 260 (W/Lab 5); 680 (No credit if taken after Spring 1988) (See Independent Study)

*256, 260 and 680 combined: maximum credit allowed, one course.

Political Science 150 (3); 210 (3); 310 (3) (No credit if taken after Spring 1988); 680, 690, 695 (1-3) (See Independent Study)

Psychology 100 (3); 110 (3) (No credit if taken after Spring 1988); † 201 (3); † 202 (3); 278 (3); 300 (3); *340 (1.5-3); 680, 690, 695 (See Independent Study)

‡ 201 and 202 combined: maximum credit allowed, 1 course.

*340 must be taken for a **minimum** of 3 units to transfer.

Social Science 100 (3) (No credit if taken after Spring 1988); 122 (3); 250 (3); 260 (3); 392 (3) (No credit if taken after Spring 1988); 680, 690, 695 (See Independent Study)

Sociology 100 (3); 101 (3); 104 (3); 105 (3); 120 (3) (No credit if taken after Spring 1988); 126 (3) (No credit if taken after Spring 1988); 141 (3); 680, 690, 695 (See Independent Study)

Spanish 110 (5); *111, *112 (3, 3); 120 (5); †121, †122 (3, 3); 130 (5); 140 (3); 161, 162 (3, 3); 680, 690, 695 (See Independent Study).

*111 and 112 combined is equivalent to 110: maximum credit allowed, 5 units.

†121 and 122 combined is equivalent to 120: maximum credit allowed, 5 units.

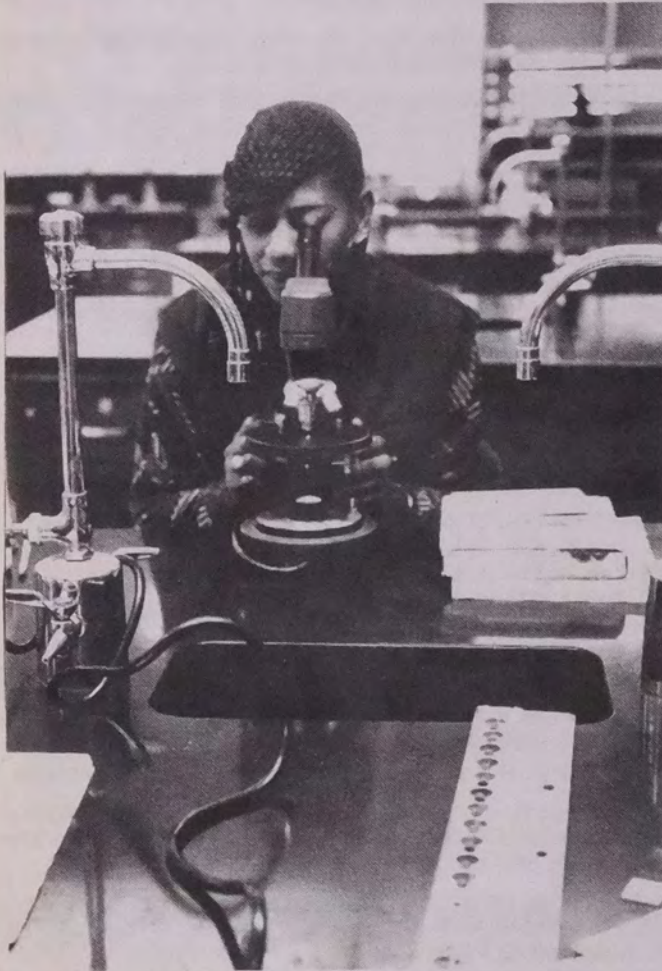
Speech Communication 100 (3); 111, 112 (3, 3); *120 (3); 127 (3); †130 (3); *140 (3); 680, 690, 695 (See Independent Study)

*120 and 140 combined: maximum credit allowed, one course.

†Limit 130 with *Drama courses: maximum credit allowed, 12 units.

Zoology 210 (W/Lab 5); 680, 690, 695 (See Independent Study)

Independent Study 690 maximum credit allowed: 3-1/3 units per term, 6 units total in any or all appropriate subject areas only



ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREE

Majors	A.A.	A.S.
Accounting		•
Anthropology	•	
Art	•	
Biology		•
Business Administration		•
Business/Office Skills		
Administrative Assistant		•
Office Skills		•
Office Management		•
Word/Information Processing		•
Chemistry		•
Computer Inform. Systems		•
Drama	•	
Early Childhood Education		•
Economics	•	
Engineering		•
English	•	
Geography	•	
Geology		•
History	•	
Home Economics	•	
Interior Design		•
Journalism	•	
Liberal Arts	•	
Management		•
Mathematics		•
Microcomputer Applications		•
Microcomputer Technician		•
Music	•	
Paralegal		•
Philosophy	•	
Physical Education	•	
Physics		•
Political Science	•	
Psychology	•	
Sociology	•	
Speech	•	
Tourism	•	

The Division of Basic and Applied Sciences encompasses all of the traditional sciences and Mathematics, as well as the applied sciences, such as Engineering and Physical Education.

The division offers all of the traditional lower division transfer courses preparatory to transfer to a four-year institution of higher learning, basic skills in Mathematics and a wide variety of Physical Education activity courses. A major thrust in the Physical Education Department is classes designed for the lifelong enhancement of fitness, recreation and leisure time. Individual pace is strongly encouraged. Team classes include various game theories and procedures. A complete testing facility is available for determining an individual's fitness level accompanied by prescriptive activities.

A series of lecture and laboratory experiences in the science area deal with the examination and explanation of physical and biological phenomena. These classes range from Anatomy through Zoology, including Mathematics and Engineering. A framework is provided in such classes to relate scientific discoveries to the student's civic and personal problems.

Direct occupational programs are provided in the areas of Radiologic Technology, and Ophthalmic Dispensing.

The Basic and Applied Sciences Division encompasses the following departments:

- Biological Sciences
- Computer Information Systems
- Engineering
- Mathematics
- Ophthalmic Dispensing
- Physical Education/Athletics
- Physical Sciences
- Radiologic Technology

BIOLOGICAL SCIENCES

A major in Biological Sciences is a preparation for advanced work, for careers in civil service, industry, or teaching; as a background for professional training in such fields as Biological Science Education, Nursing, Public Health, Environmental Health, Pre-Medicine and all related areas of biology. Natural resources are among the most important assets of man and the wise use of renewable resources is basic to development in the economic, social and political areas. All of the basic pre-professional requirements necessary to transfer are offered in the Biological Sciences, Physical Sciences, and Mathematics Departments. Pre-professional students should check the specific requirements of the school to which he/she will be applying prior to defining the exact pre-professional course of study.

CAREER OPPORTUNITIES

Biology and Applied Fields: Agriculture, Physiology, Microbiology, Botany, Entomology, Zoology, Public Health, Medical Technology.

Pre-Professional Programs: Medicine, Dentistry, Veterinary, Nursing, Physical Therapy, Optometry, Medical Lab Technician, Dental Hygiene, Pharmacy.

Environmental Science: Fisheries, Forestry, Natural Resources, Range Management, Wildlife Management.

Anthropology: Consulting and City Planning.

BIOLOGY AND APPLIED FIELDS

RECOMMENDED TRANSFER PROGRAM

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

	Units
MATH 241, 242 Applied Analytic Geometry & Calculus	10
CHEM 210, 220 General Chemistry	10
CHEM 231 Organic Chemistry	5

CHEM 250 Quantitative Analysis (Recommended)	4
PHYS 210, 220 General Physics	8
BIOL 110 Principles of Biology	4
or	
BIOL 130 Human Biology	4
BOTY 220 General Botany	5
ZOOL 210 General Zoology	5
Foreign Language	0-12

DENTAL HYGIENE

RECOMMENDED TRANSFER PROGRAM

High School Preparation: Chemistry, Mathematics through Trigonometry	Units
CHEM 210 General Chemistry	5
CHEM 231 Elem. Organic	5
BIOL 110 Principles of Biology	4
ZOOL 210 General Zoology	5
PSYC 100, 105—General, Experimental	6
Foreign Language	0-12
Geometry & Calculus	5
*PHYS 210 General Physics	4
*(Minimum requirements—Humboldt State Univ.)	

MEDICAL LAB TECHNICIAN

RECOMMENDED TRANSFER PROGRAM

Recommended High School Preparation: Elementary Algebra, Plane Geometry, Intermediate Algebra, Trigonometry, Chemistry, Biology, Physics, Foreign Language.	Units
BIOL 110 Principles of Biology	4
or	
BIOL 130 Human Biology	4
ZOOL 210 General Zoology	5
BOTY 220 General Botany	5
MBIO 240 General Microbiology	5
CHEM 210, 220 General Chemistry	10
CHEM 250 Quantitative Analysis	4
CHEM 231 Organic Chemistry	5
PHYS 210, 220 General Physics	8

NURSING

RECOMMENDED TRANSFER PROGRAM

High School Preparation: Chemistry, Intermediate Algebra.	Units
CHEM 410, 420 Health Science Chemistry	8
ANAT 250 Anatomy	4
PSIO 260 Human Physiology	5
MBIO 240 General Microbiology	5
BIOL 310 Nutrition	3
or	
ANTH 110 Cultural Anthropology	3
PSYC 100, 201 General, Child Development	6

OPTOMETRY

RECOMMENDED TRANSFER PROGRAM

High School Preparation: Chemistry, Physics, Foreign Language, four years of college preparatory Math.	Units
MATH 241, 242 Applied Analytic Geometry & Calculus	10
CHEM 210, 220 General Chemistry	10
PHYS 210, 220 General Physics	8
BIOL 110 Principles of Biology	4
ZOOL 210 General Zoology	5
PSYC 100 General Physics	3
Foreign Language	0-12

PHARMACY

RECOMMENDED TRANSFER PROGRAM

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

	Units
MATH 241, 242 Applied Analytic Geometry & Calculus	10
CHEM 210, 220 General Chemistry	10
CHEM 250 Quantitative Analysis	4
PHYS 210, 220 General Physics	8
BIOL 210 Principles	4
ZOOL 210 General Zoology	5
Foreign Language	0-12

PHYSICAL THERAPY

RECOMMENDED TRANSFER PROGRAM

	Units
BIOL 110 Principles of Biology	4
ANAT 250 Anatomy	4
PSIO 260 Human Physiology	5
CHEM 410, 420 Health & Science Chemistry	8
PHYS 210 General Physics	4

PRE-DENTISTRY

RECOMMENDED TRANSFER PROGRAM

High School Preparation: Chemistry, Mathematics through Trigonometry.

	Units
CHEM 210, 220 General Chemistry	10
CHEM 250 Quantitative Analysis (Recommended)	4
CHEM 231 Organic (Recommended)	5
PHYS 210, 220 General Physics	8
BIOL 110 Principles of Biology	4
or	
BIOL 130 Human Biology	4
ZOOL 210 General Zoology	5
PSYC 100, 105—General, Experimental	0-6
Foreign Language	0-12
MATH 241, 242 Applied Analytic Geometry & Calculus	10

PRE-MEDICINE

RECOMMENDED TRANSFER PROGRAM

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

	Units
CHEM 210, 220 General Chemistry	10
CHEM 250 Quantitative Analysis	4
CHEM 231 Organic Chemistry	5
BIOL 110 Principles of Biology	4
ZOOL 210 General Zoology	5
PHYS 210, 220 General Physics	8
Foreign Language	0-8
MATH 241, 242 Applied Analytic Geometry & Calculus	10

PRE-VETERINARY MEDICINE

RECOMMENDED TRANSFER PROGRAM

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

	Units
CHEM 210, 220 General Chemistry	10
CHEM 231, 232 Organic Chemistry	10
PHYS 210, 220 General Physics	8
BIOL 110 Principles of Biology	4
ZOOL 210 General Zoology	5
Foreign Language	0-8

MATH 241, 242 Applied Analytic

Geometry & Calculus 10

COMPUTER INFORMATION SYSTEMS

The Computer Information Systems (CIS) Program is designed to provide both an academic and a practical laboratory background for people who plan to work directly or indirectly in the computer field.

Cañada College's Computer Center is equipped with a multi-station minicomputer and also a large number of microcomputers.

Course offerings include: Introduction to Computer Science, Assembly Language, BASIC, C, COBOL, FORTRAN, and Pascal programming languages, Applications of Advanced BASIC, Files and Data Base Management, Advanced Programming Techniques, Statistics, and Finite Mathematics with Computer Applications. In addition, the microcomputers can be used to provide computer-assisted instruction (CAI) in various courses, and the minicomputer can be used for word-processing in English composition and other courses requiring writing.

Students in the CIS program can earn a Certificate and/or an Associate in Science degree in CIS. Each will provide skills necessary for entry-level employment. Students who already possess a degree in another field may take a Certificate to provide them with skills necessary in the computer field. Students may also complete the preparation for a B.A./B.S. degree major and then transfer to a four-year college or university.

The Certificate will be awarded in two options:

- CIS—Computer Science
- CIS—Business (See the Business Dept. Section for information on this Certificate)

A normal sequence of computer courses for CIS-Computer Science Certificate students is COMP 103, COMP 170, COMP 172, two other programming language courses, and MATH 125.

A normal sequence of computer courses for CIS-Business Certificate students is BUS. 103, COMP 151, COMP 170 or COMP 155.

The A.S. degree will be awarded in five options:

- Computer Science
- Computer Science/Engineering
- Computer Science/Business
- Computer Science/Social Science
- Transfer Program

Career Opportunities

The career opportunities available with a background in Computer Information Systems are vast and varied. An increasingly greater number of personnel skilled in CIS are needed as designers and manufacturers of computer systems, as engineers and scientists for research and development of computer systems, and as sales personnel skilled in marketing methods for selling computer systems. Programmers, managers, and computer operators are needed, as well as personnel for clerical and data preparation jobs. Other options include: systems analysts; interdisciplinarians (those who can meet the needs of persons from varied professions united on mutual projects); specialists in areas such as business, engineering, science, education and government; and management interpreters of computer systems needs and opportunities.

CERTIFICATE PROGRAM IN CIS—COMPUTER SCIENCE

CORE REQUIREMENTS	Units
COMP 103 Intro. to Programming in using Pascal	3
COMP 170 Programming in Pascal	3
COMP 172 Advanced Pascal Programming	4
MATH 125 Elementary Finite Math.	3
Plus two of the following:	
COMP 151, COMP 155, COMP 162, COMP 190, COMP 275, COMP 695	
Total	19

CERTIFICATE PROGRAM IN CIS—BUSINESSSee **MICROCOMPUTER APPLICATIONS****CERTIFICATE PROGRAM—AREA B: PROGRAMMING****ASSOCIATE IN SCIENCE DEGREE**

COMPUTER SCIENCE	Units
Certificate Core Requirements (CIS-Computer Science)	20
MATH 200 Statistics	4
MATH 251 & 252 Analyt. Geometry & Calculus	10
COMP or MATH course not included in the above	6
General Education Requirements	18
Physical Education	2
Total	60

ASSOCIATE IN SCIENCE DEGREE

COMPUTER SCIENCE/ENGINEERING	Units
Certificate Core Requirements (CIS-Computer Science)	20
*COMP 275 Assembly Language	3
ENGR Courses	3-4
MATH 251 & 252 Analyt. Geometry & Calculus	10
PHYS 250 General Physics	4
General Education Requirements	18
Physical Education	2
Total	60-61

ASSOCIATE IN SCIENCE DEGREE

COMPUTER SCIENCE/BUSINESS	Units
Certificate Core Requirements (CIS—Business)	29.5
Electives (Business courses)	10.5
General Education Requirements	18
Physical Education	2
Total	60

ASSOCIATE IN SCIENCE DEGREE

COMPUTER SCIENCE/SOCIAL SCIENCE	Units
Certificate Core Courses (CIS—Core Courses)	20
COMP 699	1
SOSC 100 Survey of the Social Sciences (Emphasis is on the impact of computers)	3
MATH 200 Statistics	4
SOSC 122 Social Science Research Methods	3
Electives Social Science (Recommended: PSYC 100, ECON 100 & SOCI 100)	9
General Education Requirements	18
Physical Education	2
Total	60

TRANSFER REQUIREMENTS

Preparation for the major General Education (Cal. State Universities and U.C.)	39
Total electives as needed	

Many universities and colleges distinguish between B.S./ B.A. programs in computer engineering and computer systems, the latter emphasizing software. Students may wish to consult with a counselor or refer to the catalog of the appropriate transfer institution.

ENGINEERING

The Engineering programs detailed below have been designed to prepare a student to transfer to the Engineering Department of 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 Engineering Department Counselor.

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

CAREER OPPORTUNITIES

Practicing engineers are expected to be able to solve a large variety of technical problems in the area of: Aeronautics, Chemical, Civil, Electrical, General (concentration in Computer Science), Industrial, Mechanical, and Materials Science.

ELC RECOMMENDATIONS

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

ENGINEERING

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

RECOMMENDED TRANSFER PROGRAM

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

	Units
MATH 251, 252, 253 Analytic Geometry & Calculus	15
MATH 275 Differential Equations	3
PHYS 250, 260, 270 General Physics	12
CHEM 210, 220 General Chemistry	10
ENGR 100 Engineering & Environment	2
ENGR 200 Descriptive Geometry	2
ENGR 220 Graphics	2
ENGR 230 Vector Statics	3
ENGR 260 Circuits & Devices (with lab)	4
ENGR 270 Materials Science	3
COMP 162 FORTRAN	3

ENGINEERING

(Technical Program)

RECOMMENDED TRANSFER PROGRAM

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

	Units
ENGR 100 Engineering & Environment	2

MATH 241, 242 Applied Analytic Geometry & Calculus	10
CHEM 410, 420 Health & Science Chemistry	8
PHYS 210, 220 General Physics	8
COMP 155 BASIC	3
COMP 162 FORTRAN	3

MATHEMATICS

The Mathematics Department 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.

CAREER OPPORTUNITIES

The Mathematics major may be used as a basis for professional careers in Business, Civil Service, Industry, Research, Science and Teaching; as a preparation for advanced work in Mathematics or Engineering; or as a basis for an entry position in Computer Science.

RECOMMENDED TRANSFER PROGRAM

	Units
MATH 251, 252, 253 Analytic Geometry & Calculus	15
MATH 275 Differential Equations	3
MATH 270 Linear Algebra	3
COMP 162 FORTRAN	3
PHYS 210, 220 General Physics	4
Foreign Language	0-12

OPHTHALMIC DISPENSING

Associate in Science Degree with a Major in Ophthalmic Dispensing

An Ophthalmic Dispenser combines scientific and clinical procedures to fit and adapt lenses or devices to aid or correct visual deficiencies. In carrying out this role, the Ophthalmic Dispenser plays a vital part in today's health care field.

The program is a two-year sequence. The first year prepares the student in laboratory skills and lens theory while the second year is devoted to the dispensing role for both spectacles and contact lenses.

Prerequisites: High school graduation or equivalent, and written entrance examination as administered by Cañada College.

In addition to the College admission application, all students seeking entrance to the Ophthalmic Dispensing Program must complete a separate application available from the Basic and Applied Sciences Division office. Applications for new or continuing students are available each January for the following Fall Semester.

CAREER OPPORTUNITIES

A graduate may seek employment as an ophthalmic dispenser, contact lens fitter or technician, ophthalmic assistant or ophthalmic sales representative.

REQUIRED CURRICULUM

	Units
HSCI 410 Microcomputers for the Health Sciences	1
MATH 410 Technical Math	3
OPTH 400 Intro. to Ophthalmic Optics	3

OPTH 411 Lab Techniques I	4
OPTH 412 Lab Techniques II	4
OPTH 431 Lenses	3
OPTH 441 Fabrication	2
OPTH 460 Anatomy & Physiology of the Eye	3
OPTH 471 Dispensing Techniques I	3-5
OPTH 472 Dispensing Techniques II	3-5
OPTH 491 Contact Lenses I	3.5
OPTH 492 Contact Lenses II	3.5
PHYS 481 Geometric Optics	3
OPTH 670 Co-op. Ed.	4-8
OPTH 690 Special Projects	2

A grade of C or better is necessary for progression in the sequence.

PHYSICAL EDUCATION/ ATHLETICS

The Physical Education/Athletics Department offers a variety of activity classes designed for lifetime enhancement of fitness, recreation and leisure time.

Classes in combatives, dance, individual sports, fitness and team sports are offered at various levels of performance. Beginning classes introduce an activity; intermediate to advanced courses are designed to improve an already existing skill level.

The Fitness Institute provides lectures regarding physiology and kinesiology, as well as testing to determine one's fitness level.

CAREER OPPORTUNITIES

Teaching/Coaching
Therapy—Physical, Occupational and Corrective
Recreation Leaders
Special Education Teachers
Fitness and Therapeutic Gym Programs
Athletic and/or Sports Management
Athletic Official

VARSITY ATHLETICS

Cañada College participates as a member of the Coast Conference in the following activities: baseball, basketball, golf, tennis. In order to be eligible a student must be actively enrolled in 12 units. Additional questions regarding eligibility should be addressed to the Athletic Coordinator.

PHYSICAL EDUCATION

RECOMMENDED TRANSFER PROGRAM

	Units
Complete appropriate prerequisite for the major	19-23
BIOL 110 Principles of Biology	4
ANAT 250 Anatomy	4
PSIO 260 Human Physiology	5
Physical Education Activities	4-8
Other requirements: Students should refer to the catalog of the transferring institution for specific requirements for the major. Complete requirements for General Education	40

PHYSICAL SCIENCES

The Physical Science Department is designed to give the student breadth in the physical sciences while providing considerable strength in one of the specialized science fields of chemistry, geology, or physics. The lower-division program in the physical science major is virtually the same as that taken in the first two years of college by a chemistry major, physics major, or geology major, thus enabling students to transfer

among these majors if they so choose. A major in physical science can serve as preparation for further study in technical fields and serves as an excellent background for professional training in law, business, medicine, or education.

CAREER OPPORTUNITIES

Architect, Governmental Agencies, Drug Industry, Food Industry, Computer-Related Occupations, Industrial Electronics, Petroleum Industry, Mineral Exploration, Land Use Planning, Construction and Manufacturing, Radiation Physicist, Meteorology, Energy Management.

ARCHITECTURE

RECOMMENDED TRANSFER PROGRAM	Units
COMP 155, 162 BASIC, FORTRAN	3-6
*MATH 241, 242 Applied Analytic Geometry & Calculus	10
*PHYS 210, 220 General Physics	8
Foreign Language	0-12
ENGR 111 Surveying (CSM)	3
ENGR 100 Engineering & Environment	2
ENGR 220 Graphics	2
ART 201 Form & Composition	3
ENGR 200 Descriptive Geometry (Recommended)	2
ART 305-3-D Design (Recommended)	3
*Math 251, 252, 253, and Physics 259, 260, 270 sequence in place of Math 241, 242 and Physics 210, 220 are recommended for those contemplating transfer to California State Polytechnic Colleges.	

CHEMISTRY

RECOMMENDED TRANSFER PROGRAM	Units
MATH 251, 252, 253 Analytic Geometry & Calculus	15
MATH 275 Ordinary Differential Equations	3
PHYS 250, 260, 270 General Physics	12
CHEM 210, 220 General Chemistry	10
CHEM 250 Quantitative Analysis	5
CHEM 231 Organic Chemistry	5
Foreign Language	0-12

ELECTRONICS

RECOMMENDED TRANSFER PROGRAM	Units
ENGR 100 Engineering & Environment	2
ENGR 260 Circuits & Devices	3
MATH 251, 252, 253 Analytic Geometry & Calculus	15
COMP 162 FORTRAN	3
PHYS 250, 260, 270 General Physics	12
CHEM 210, 220 General Chemistry	10
BUS 100 Survey of Business	3

GEOLOGY

RECOMMENDED TRANSFER PROGRAM	Units
MATH 251, 252 Analytic Geometry & Calculus	10
PHYS 210, 220 General Physics	8
GEOL 210 General Geology	4
GEOL 220 Historical Geology	4
or	
GEOL 110 Geological Hazards	3
CHEM 210, 220 General Chemistry	10
ENGR 110 Surveying	3

INDUSTRIAL ARTS

RECOMMENDED TRANSFER PROGRAM	Units
MATH 220 Pre-Calculus College Algebra	3
CHEM 410 Health Science Chemistry	4
PHYS 210 General Physics	4
ENGR 200 Descriptive Geometry	2

The following may be required depending on transfer school:
 PHYS 220 General Physics 4
 CHEM 420 Health Science Chemistry 4

OCEANOGRAPHY

RECOMMENDED TRANSFER PROGRAM	Units
High School Preparation: Chemistry, Physics, four years of college prep Math.	
*MATH 251, 252, 253 Analytic Geometry & Calculus	15
*CHEM 210, 220 General Physics	10
*PHYS 250, 260, 270 General Physics	12
*BIOL 110 Principles	4
GEOL 210 General Geology	4
ZOOL 210 General Zoology	5
BOTY 220 General Botany	5
MATH 200 Elem. Probability & Statistics	4
*(Minimum requirements—Humboldt State Univ.)	

PHYSICS

RECOMMENDED TRANSFER PROGRAM	Units
High School Preparation: Physics, Chemistry, four years of college preparatory Math.	
MATH 251, 252, 253 Analytic Geometry & Calculus	15
MATH 275 Differential Equations	3
COMP 162 FORTRAN	3
CHEM 210, 220 General Chemistry	10
PHYS 250, 260, 270 General Physics	12

RADIOLOGIC TECHNOLOGY (X-Ray Technology)

Associate in Science Degree with a Major in Radiologic Technology

Completion of the program enables the student to write the examination given by the American Registry of Radiologic Technologists and the certification examination for licensure required by the State of California. Basic science and general education courses are given on the Cañada campus, with concurrent clinical education at one of the affiliating hospitals.

Prerequisites: High school graduation or equivalent and written entrance examination as administered by Cañada College. Completion of a course in algebra within three years, a course in Chemistry or Physics with laboratory, and Biology with laboratory.

In addition to the College admission application, all students seeking entrance to the Radiologic Technology Program must complete a separate application available from the Basic and Applied Sciences Division Office. Applications for new or continuing students are available each January for the following Fall Semester.

CAREER OPPORTUNITIES

Job opportunities exist in physicians' offices, hospitals and clinics.

REQUIRED CURRICULUM	Units
ANAT 250 Anatomy*	4
PHYS 405 Radiation	3-4
MATH 410 Math for Technology*	3
ENGL 100 Composition*	3
PSIO 256 Principles of Physiology	4
RADT 495 Nursing for Radiographers	2
RADT 400 Orientation	3
RADT 410 Positioning	3
RADT 420 Exposure	2
RADT 430 Radiation Health & Protection	3
RADT 440 Advanced Techniques	3
General Education	9
Physical Education	2
A grade of "C" or better is necessary for progression in the sequence.	
RADT 418, 428, 438, 448, 458	28

These are Clinical Education Labs which total 2,000 hours and accompany Radiological Technology courses.

*May be used to satisfy general education requirements for the A.S. Degree.



The Business/Social Sciences Division offers courses and programs through a number of departments. The following departments comprise the Division:

- Accounting
- Administration of Justice
- Anthropology
- Business Administration
- Computer Science/Social Science
- Early Childhood Education
- Economics
- Geography
- History
- Home Economics
- Interior Design
- Management
- Microcomputer Applications
- Microcomputer Technician
- Office Management*
- Office Skills*
- Paralegal
- Philosophy
- Political Science
- Psychology
- Social Science
- Sociology
- Tourism
- Word/Information Processing*

* See Business/Office Skills .

ACCOUNTING

The Business Department offers a transfer curriculum to a four-year university, an A.S. Degree and a certificate program designed to give the students both formal and practical training in accounting. The accounting 4-year college/university program is the same as the business transfer program. The accounting A.S. degree and certificate programs are designed to give students enough practical experience so that they can secure a position in either the public, governmental or private accounting sector when they have completed the recommended 22—29.5 units. **Courses specifically required for the student's major must be evaluated by a letter grade, not by the credit (CR) grade.**

RECOMMENDATIONS

It is recommended that students who have not completed a bookkeeping course in high school, who have had no accounting experience, or who feel they would have difficulty in completing a college level accounting course enroll in ACTG 100 prior to taking any of the core courses in the program. In addition, any student who has not completed Business Math or Algebra in high school with a 'C' or better should enroll in BUS. 115 (Business Mathematics) concurrently with any of the courses in the certificate program.

CAREER OPPORTUNITIES

The accounting profession offers many opportunities to an individual who has completed either a B.A. Degree, an A.S. Degree or a Certificate Program. For those individuals who go on to a four-year university, career opportunities are available as a certified public accountant in the governmental sectors and in other accounting positions. For those individuals who complete an A.S. Degree and/or a certificate there are positions available as bookkeepers, accounts payable and accounts receivable supervisors, and general ledger and payroll supervisors. These opportunities offer a wide range of salaries and job advancement.

TRANSFER PROGRAM

Same as Business Administration.

ACCOUNTING CERTIFICATE PROGRAM

	Units
ACTG 100 Accounting Procedures or	
ACTG 121 Financial Accounting	3-5
ACTG 190 Computerized Accounting	3
ACTG 212 Manufacturing Accounting	
or	
ACTG 131 Managerial Accounting	1-5
ACTG 180 Payroll & Business Taxes	1-5
BUS. 100 Survey of Business	3
BUS. 415 Computer Keyboarding/Typewriting	1-3
BUS. 434 Microcomputer Spreadsheet	3
Electives: Choose from	
Accounting, Business, and Cooperative	
Education	6
Total	22-29.95

A.S. DEGREE ACCOUNTING

	Units
Certificate Core Requirements	22-29.5
Gen. Education Requirements	18
Electives: Choose from	
Accounting, Business, and Cooperative	
Education	12.5-20

SUGGESTED ELECTIVES

	Units
BUS. 201 Business Law	3
BUS. 401 Business Communications	3
BUS. 670 Cooperative Education	1-4
ACTG 171 Individual Federal Income Tax Procedures	3
BUS. 103 Intro. to Bus. Computer Systems	3
BUS. 436 Microcomputer Database Management	3
BUS. 438 Microcomputer Graphics	3
ACTG 670 Cooperative Education	1-4

ADMINISTRATION OF JUSTICE

Administration of Justice is a multi-faceted discipline which addresses the pervasive problem of crime and delinquency by drawing from law, sociology, psychology, political science, public administration, and the natural sciences. The discipline deals with a survey of the criminal justice system and a close look at corrections, the causes of crime, the prevention and control of deviant behavior, and the law as it affects the community as a whole. Students interested in a program with this emphasis should contact their counselor.

CAREER OPPORTUNITIES

Career opportunities exist in the following areas: rehabilitation, probation, officers, caseworkers, psychotherapists, interpreters and translators, crime statisticians, drug and alcohol counselors, juvenile hall counselors, correctional officers, correctional counselors, group workers, and criminal justice researchers. Most of these career opportunities require education beyond the A.A. degree.

TRANSFER PROGRAM

Many job opportunities in the corrections field require a B.A. or advanced degree. Students can fulfill general education and lower division Science and Social Science requirements at Cañada.

ANTHROPOLOGY

Anthropology is the study of peoples of the world from prehistoric to contemporary times. It is concerned with the variability of human populations and their biocultural history. Physical Anthropology concentrates on various biological characteristics, and Cultural Anthropology on socially learned traits.

CAREER OPPORTUNITIES

In addition to careers as a cultural or physical anthropologist, students might become ethnologists, archeologists or linguists. Other possibilities include environmental impact analyst, museum curator, redevelopment specialist, ethnic relations specialist, expedition guide, industrial consultant, urban planner, exhibit designer, population analyst, social services consultant, and cultural resource manager.

TRANSFER PROGRAM

Most job opportunities in anthropology require a B.A. or advanced degree. Students can fulfill General Education and lower division science and social science requirements at Cañada. Electives in anthropology provide opportunities to explore native American and Spanish-speaking ethnic groups in particular.

RECOMMENDED TRANSFER PROGRAM

	Units
ANTH 105 Peoples and Cultures of the World	3
ANTH 110 Cultural Anthropology	3
ANTH 125 Physical Anthropology	3
BIOL 130 Human Biology	4
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
PHIL 100 Introduction to Philosophy	3
SOSC 122 Social Science Research Methods	3
SOCI 100 Introduction to Sociology	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Anthropology must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural Science, Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

OTHER COURSES IN ANTHROPOLOGY

ANTH 360 Indians of North America	3
ANTH 370 Pre-Columbian Peoples & Cultures of Mexico & Central America	3
ANTH 680 Special Topics in Anthropology	1-3

BUSINESS ADMINISTRATION

The Business Department offers a transfer program, an A.S. Degree, and a Certificate Program for those students who wish a more general business background. The transfer program listed is the same for all business disciplines at four-year colleges and universities. The A.S. Degree and the Certificate Program are designed to help a student develop a general business awareness for the world of work, or a four-year college or university. **Courses specifically required for the student's major (certificate core requirements) must be evaluated by a letter grade, not by the credit (CR) grade.**

CAREER OPPORTUNITIES

The career opportunities available to a student who majors in Business Administration are extremely diverse. The general nature of the courses offers a student an opportunity to work in almost any business discipline: sales, marketing, public relations, and personnel.

RECOMMENDED TRANSFER PROGRAM

	Units
PREPARATION FOR MAJOR	
ACTG 121 Financial Accounting	4-5
ACTG 131 Managerial Accounting	4-5
BUS. 103 Intro. to Bus. Computer Systems	3
BUS. 201 Business Law	3
ECON 100 Princ. of Macro Economics	3
ECON 102 Princ. of Micro Economics	3
MATH 125 Elem Finite Math*	3
MATH 200 Statistics	4
MATH 241 Applied Anal. Geometry and Calculus*	5
MATH 242 Applied Anal. Geometry and Calculus*	5

Please consult your counselor and the catalog of the university or college you wish to attend for specific requirements. *These Math courses are not required by all universities and colleges. Please consult with your counselor for recommendations as to whether or not these courses are required by the university or college to which you intend to transfer.

CERTIFICATE PROGRAM—

BUSINESS ADMINISTRATION	Units
ACTG 121 Financial Accounting	4-5
BUS. 100 Survey of Business	3
BUS. 101 Human Relations in Business	3
BUS. 103 Intro. to Bus. Computer Systems	3
BUS. 115 Business Math or MATH 120 Interm. Algebra & Review	3-5
BUS. 201 Business Law	3
BUS. 401 Business Communications	3
BUS. 434 Microcomputer Spreadsheet	3
Total	25-28

A.S. DEGREE—BUSINESS ADMINISTRATION

	Units
Core Requirements	25-28
General Education Requirements	18
Electives	14-17

SUGGESTED ELECTIVES

	Units
ACTG 131 Managerial Accounting	4-5
BUS. 180 Marketing	3
BUS. 235 Techniques of Supervision	3
BUS. 403 WP: Letter Formats	1-3
BUS. 404 WP: Report Formats	1-3
BUS. 436 Microcomputer Database Management	3
ECON 100 Princ. of Macro Economics	3
ECON 102 Princ. of Micro Economics	3

BUSINESS/ OFFICE SKILLS

The Business Department prepares students for both entry-level positions and management positions in the automated office. Students are prepared to plan, develop, organize, and distribute information through the application of computer/electronic technology. A.S. Degree and certificate programs are offered by the College. **Courses specifically required for the student's major must be evaluated by a letter grade, not by the credit (CR) grade.**

CAREER OPPORTUNITIES

Graduates can look forward to placement doing rewarding work in a dynamic field involving computers and people. There will be opportunities for advancement to middle-level management, excellent salary and benefits, opportunities to live and work in all parts of the country and the world, and opportunities to work in all types of organizations and industries—large or small, public or private.

OPTION ONE**CERTIFICATE PROGRAM
ADMINISTRATIVE ASSISTANT**

The Administrative Assistant option is for individuals who wish to prepare for top-level secretarial and administrative assistant positions working closely with management in any type of business, professional, educational, and industrial office.

PREREQUISITE: Completion of Office Skills Certificate option or equivalent training or experience.

	Units
ACTG 100 Principles of Accounting	3-5
or	
ACTG 121 Financial Accounting	3
BUS. 101 Human Relations in Business	3
BUS. 103 Introduction to Bus. Computer Systems	3
BUS. 201 Business Law	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
MGMT 225 Office Management	3
MGMT 235 Techniques of Supervision	3
Total	25-27

A.S. DEGREE—ADMINISTRATIVE ASSISTANT

CORE REQUIREMENTS	Units
See Certificate Courses	27-29
General Education Requirements	18

SUGGESTED ELECTIVES	Units
BUS. 100 Survey of Business	3
BUS. 115 Business Mathematics	3
BUS. 415 Typewriting/Keyboarding	1-3
BUS. 431 Microcomputer Fundamentals	3
BUS. 434 Microcomputer Spreadsheet	3
BUS. 436 Microcomputer Data Base Mgmt.	3
BUS. 438 Microcomputer Graphics	3
BUS. 670 Cooperative Education	1-4
ACTG 190 Computerized Accounting	3
MGMT 100 Management Theory	3
MGMT 120 Management Communications	3
MGMT 136 Budget & Planning	1.5
MGMT 137 Performance & Measurements	1.5
MGMT 215 Management of Human Resources	3

OPTION TWO**CERTIFICATE PROGRAM
OFFICE SKILLS**

The Office Skills option is for individuals who wish employment as receptionists and/or general office workers.

	Units
BUS. 100 Survey of Business	3
BUS. 400 Business English	3
BUS. 401 Business Communications	3
BUS. 402 WP: Machine Transcription	1-3
BUS. 403 WP: Letter Formats	1-3
or	
BUS. 404 WP: Report Formats	1-3
or	
BUS. 406 Concepts for Elect. Office	3
BUS. 410 Office Internship	1-3
BUS. 416 Office Skills	3
BUS. 431 Microcomputer Fundamentals	3
BUS. 434 Microcomputer Spreadsheet	3
Total	24-30

A.S. DEGREE—OFFICE SKILLS

CORE REQUIREMENTS	Units
See Certificate Courses	24-30
General Education Requirements	18
Electives	12-18

SUGGESTED ELECTIVES

	Units
ACTG 100 Accounting Procedures	3-4
BUS. 110 Business Arithmetic	3
or	
BUS. 115 Business Mathematics	3
BUS. 415 Intro. Typewriting/Keyboarding	1-3
BUS. 432 Microcomputer Word Processing	3
or	
BUS. 407 Basic Word Processing (WANG)	3
and	
BUS. 408 Intermediate WP (WANG)	3
and	
BUS. 409 Advanced WP (WANG)	3
BUS. 436 Microcomputer Data Base Mgmt.	3
BUS. 670 Cooperative Education	1-4
BUS. 101 Human Relations in Business	3
BUS. 103 Introduction to Bus. Computer Systems	3

OPTION THREE**CERTIFICATE PROGRAM
OFFICE MANAGEMENT**

The Office Management option is for individuals who wish employment as office managers and other supervisory positions in offices.

	Units
BUS. 101 Human Relations in Business	3
BUS. 400 Business English	3
BUS. 401 Business Communications	3
BUS. 403 WP: Letter Formats	3
or	
BUS. 404 WP: Report Formats	1-3
BUS. 406 Concepts for Elect. Office	3
BUS. 431 Microcomputer Fundamentals	3
MGMT 100 Management Theory	3
MGMT 220 Organizational Behavior	3
MGMT 225 Office Management	3
MGMT 235 Techniques of Supervision	3
Total	28-30

A.S. DEGREE—OFFICE MANAGEMENT

CORE REQUIREMENTS	Units
See Certificate Courses	26-30
General Education Requirements	18
Electives	12-16

SUGGESTED ELECTIVES	Units
ACTG 100 Accounting Procedures	3-4
BUS. 100 Survey of Business	3
BUS. 103 Introduction to Bus. Computer Systems	3
BUS. 115 Business Mathematics	3
BUS. 201 Business Law	3
BUS. 415 Intro. Typewriting/Keyboarding	1-3
BUS. 434 Microcomputer Spreadsheet	3
BUS. 436 Microcomputer Data Base Mgmt.	3
BUS. 438 Microcomputer Graphics	3
BUS. 670 Cooperative Education	1-4

OPTION FOUR**CERTIFICATE PROGRAM
WORD/INFORMATION PROCESSING**

The Word/Information Processing option is for individuals who wish employment in word/information processing positions in general business offices, law firms, insurance companies, and other businesses where text-editing and information processing equipment are used.

CERTIFICATE PROGRAM

WORD/INFORMATION PROCESSING

Units

BUS. 101 Human Relations in Business	3
BUS. 401 Business English	3
BUS. 402 WP: Machine Transcription	1-3
BUS. 403 WP: Letter Formats	1-3
or	
BUS. 404 WP: Report Formats	1-3
BUS. 406 Concepts for Elect. Office	3
BUS. 407 Basic Word Processing (WANG)	1.5
and	
BUS. 408 Intermediate WP (WANG)	1.5
and	
BUS. 409 Advanced WP (WANG)	3
or	
BUS. 431 Microcomputer Fundamentals	3
and	
BUS. 432 Microcomputer Word Processing	3
BUS. 410 Office Internship	1-3
BUS. 416 Office Skills	3
BUS. 431 Microcomputer Fundamentals	3
Total	26-30

A.S. DEGREE — WORD PROCESSING

CORE REQUIREMENTS

Units

See Certificate Courses	23-27
General Education Requirements	18
Electives	15-19

SUGGESTED ELECTIVES

BUS. 103 Intro. to Bus. Computer Systems	3
BUS. 415 Intro. Typewriting/Keyboarding	1-3
BUS. 405 WP: Skill Building	1-3
BUS. 401 Business Communications	3
BUS. 410 Office Internship	1-3
BUS. 416 Office Skills	3
BUS. 436 Microcomputer Data Base Mgmt.	3
BUS. 438 Microcomputer Graphics	3
BUS. 450 Office Automation: Minicomputer Altern.	3
BUS. 670 Cooperative Education	1-4

EARLY CHILDHOOD EDUCATION

Cañada's Early Childhood Education Program is designed so that persons interested in working with young children may develop the necessary skills, as well as strengthen and broaden their own backgrounds. Developmental trends, program planning, and parent education are aspects of the program. The curriculum focuses on physical, socio-emotional, and cognitive growth and development from infancy to ten years of age. Current research and practical application are combined in order to assist students in the planning of effective environments for children. A distinctive feature of this program is that students observe and work with children in a variety of community settings.

CAREER OPPORTUNITIES

Career opportunities in early childhood education include preschool teacher or director, child development specialist, infant caregiver, home advisor in Head Start Programs, Family Day Care Provider, parent education or adult education instructor, birth educator, group home worker, community worker in a child abuse program, migrant program teacher, hospital playroom supervisor, children's books representative, and adoption counselor.

Depending on the particular career interest, students may need to pursue advanced education.

During the 1980s and 1990s, it is predicted that related subject areas may be particularly supportive to an ECE background. These include: infant development, nutrition, Special Education, and microcomputers for curriculum development. Students also considering their own ECE business would be wise to consider course work in accounting and money management.

TRANSFER PROGRAM

Students planning to transfer to four-year colleges and universities should consult those catalogs for additional information concerning Early Childhood Education. Course work should be planned to meet the lower division general education requirements.

RECOMMENDED TRANSFER PROGRAM

Units

PSYC 100 General Psychology	3
PSYC 201 Child Development	3
ECE./PSYC 210 Early Childhood Education Principles	3
ECE./PSYC 211 Early Childhood Education Curriculum	3
ECE./PSYC 212 Child, Family and Community	3

CERTIFICATE PROGRAM IN EARLY CHILDHOOD EDUCATION

Any of the following courses may be selected for a total of 24 units:

ECE./PSYC 210 Early Childhood Education Principles	1-3
ECE./PSYC 211 Early Childhood Education Curriculum	1-3
ECE./PSYC 212 Child, Family and Community	3
ECE. 230 Creative Activities for the Young Child	3
ECE. 240* Early Childhood Education Administration I (business/legal)	3
ECE. 241 Early Childhood Education Administration II (human relations)	3
ECE. 243 Microcomputers in Early Child. Ed.	3
ECE. 245 Teaching & Management Internship I	3-10
ECE. 246 Teaching & Management Internship II	5-10
ECE. 311 Nutrition for Young Children	1
ECE. 313 Health and Safety for Young Children	1
ECE. 670 Cooperative Education	1-4
ECE. 680 Special Topics in ECE	0.5-3
ECE. 690 Special Project	2
LIT. 191 Children's Literature	3
PSYC 201 Child Development	3
PSYC 221 The Special Child	3
PSYC 223 Infant Behavior	3
PSYC 391 Parenting	3
ART/MUS. 190 Fine Arts for Children	3
BIOL 111 Nature Study	3
*12 units of course work (or equivalent experience) suggested prerequisite.	

SPECIAL PERMITS OR CREDENTIALS

CHILD DEVELOPMENT ASSOCIATE CREDENTIAL (CDA)

Several of the core courses have been divided into modules to meet the supplementary training requirement of the Child Development Associate Credential (CDA), needed particularly by Head Start Programs. Special Education and Infancy electives are available in an effort to acknowledge the growing emphasis on "mainstreaming" handicapped in early childhood education settings and the need for early awareness of developmental trends.

CHILDREN'S CENTER INSTRUCTIONAL PERMIT

Cañada's program is also designed so that students wishing to work toward the California State requirements for the Regular Children's Center Instructional Permit may do so. The Permit requires:

- 24 semester units of Early Childhood Education/Child Development course work (excluding field work).
- 16 semester units of General Education.
- One year of supervised field work or two years in a child development program. (This may be fulfilled under ECE. 670, Cooperative Education.)
- CBEST (California Basic Educational Skills Test)

The Permit is issued for five years, renewable for successive five-year periods. The Life Permit requires a bachelor's degree.

SUPERVISION PERMIT

Six units of Administration course work are available so that any student deemed eligible to hold a regular children's center permit and possessing a bachelor's degree, including an additional 12 units of ECE/Child Development, may acquire the Children's Center Supervision Permit.

Permit application is made through the County Office of Education, Redwood City, California.

TEACHING AND MANAGEMENT INTERNSHIP PROGRAM

This new component to Cañada's ECE Program is designed for the experienced early childhood education/child development major. It was developed in cooperation with the Bing School at Stanford University, which serves as the training setting. Students participate on a Bing teaching team and attend a weekly management seminar. Individual contracts are constructed with the supervisors and eligible students, depending on their educational and experiential backgrounds. Units apply toward the ECE Certificate, the Children's Center Instructional Permit, or the Children's Center Supervisory Permit. For more detail, see course descriptions ECE. 245 and ECE. 246

ECONOMICS

Economics is a social science concerned with the way people make a living. It is the study of structures and roles in society which influence the production, distribution, scarcity, and consumption of goods and services.

CAREER OPPORTUNITIES

In addition to a career as an economist, students can specialize as research, commodity, manpower, project, energy, transportation, or international economists, and natural resource consultants. Other possibilities include marketing specialists, budget analysts, market analysts, labor relations arbitrators, or industrial relations specialists.

TRANSFER PROGRAM

Most job opportunities require at least a B.A. degree. Students can fulfill General Education and lower division social science, mathematics, and business electives at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
ECON 230 Economic History of United States	3
ACTG 121 Financial Accounting	4-5
ACTG 131 Managerial Accounting	4-5
MATH 125 Elementary Finite Math	3
MATH 241/242 Applied Anal. Geometry and Calculus	10
SOSC 122 Social Science Research Methods	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. Degree in Economics must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

GEOGRAPHY

Geography provides insights about the earth as the human habitat. It is a way of looking at the earth, not an inventory of its contents. This viewpoint rests on fundamental interlocking concepts. The cultural appraisal of the earth, the regional concept, areal coherence, human ecology, spatial interaction, study of landscape and the concept of change are all ways the geographer tries to better understand the environment.

CAREER OPPORTUNITIES

In addition to a career as a geographer, geographic analyst, geographic planner, or agricultural geographer, other possibilities include cartographer, climatologist, ecologist, environmental scientist, soil conservationist, demographer, land use, urban or recreational resource planner.

TRANSFER PROGRAM

Many job opportunities in Geography require at least a B.A. Degree. Students can fulfill General Education and lower division social science and science requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
GEOG 100 Physical Geography	3
GEOG 110 Cultural Geography	3
GEOG 150 World Regional Geography	3
ANTH 110 Cultural Anthropology	3
ANTH 125 Physical Anthropology	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
GEOG 210 General Geology	3
GEOG 220 Historical Geology	3
HIST 201 United States History to 1865	3
HIST 202 United States History since 1865	3
SOCI 100 Introduction to Sociology	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. Degree in Geography must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

HISTORY

History is the story of our common human experience. Without it we are amnesia victims in a world that demands our fullest understanding and deepest wisdom. This discipline examines people, institutions, ideas and events, past and present, and provides a foundation to plan for the future.

CAREER OPPORTUNITIES

In addition to a career as a historian, other possibilities include pre-law/lawyer, pre-theology/clergy, foreign service, archivist, museum curator, librarian, communications, market research, historical societies, consultant, and writer.

TRANSFER PROGRAM

Cañada's history offerings cover a wide range, from general surveys of Western Civilization and United States History to courses in such specific areas as California, Latin America, Africa, and the Far East, and such special topics as religion, women, minorities and genealogy.

A major in history leads to many possible careers, particularly in law, government, foreign service, teaching, research, writing, and television or journalistic news analysis. Many job opportunities require at least a B.A. Degree. Students can fulfill General Education and lower division social science requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
HIST 100 History of Western Civilization	3
HIST 101 History of Western Civilization	3
HIST 201 United States History to 1865	3
HIST 202 United States History since 1865	3
HIST 421 History of Americas	3
HIST 422 Modern Latin America	3
ANTH 110 Cultural Anthropology	3
ECON 100 Principles of Macro Economics	3
GEOG 100 Physical Geography	3
SOCI 100 Introduction to Sociology	3
SOSC 122 Social Science Research Methods	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. Degree in History must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

HOME ECONOMICS

The Home Economics Department provides educational preparation for transfer majors in Home Economics and for occupations involving textiles, fashion, clothing, alterations and dressmaking, household equipment, consumer relations, foods, nutrition, home management, and family relations. A.S. degrees are offered in Home Economics and in Textiles and Clothing. The Home Economics Department also offers certificate programs in General Home Economics and in Textiles and Clothing (emphasis on custom dressmaking and apparel design).

The curriculum provides for individual development in consumer and homemaking skills, as well as career education. Computer applications will be available for the Home Economics field of instruction.

CAREER OPPORTUNITIES

There is a variety of career opportunities available to Home Economics majors in education, extension work, consumer product testing and promotion, consumer protection, family welfare, nutrition and dietetics, clothing and fashion design, clothing production and merchandising, and family service. The Textiles and Clothing certificate provides training leading to work in dress designing, custom dressmaking, alterations, fashion consulting, fashion merchandising, and textile merchandising.

RECOMMENDED TRANSFER PROGRAM

PREPARATION FOR GENERAL HOME ECONOMICS MAJOR		Units
H.E. 111 Techniques of Fit*	.....	3
H.E.C 113 Textiles	.....	3
H.E.C 115 Intermed. Clothing Construction	.....	3
H.E.C 310 Nutrition	.....	3
H.E.C 416 Consumer Decision Making	.....	3
INTD 115 Your Home & Your Environment	.....	3

PSYC 100 General Psychology	3
PSYC 201 Child Development	3

or

PSYC 212 Child Family and Community	3
Total	24

*If no previous clothing construction experience, take H.E.C 110 or 112 before H.E.C.111.

Please consult with your counselor and the catalog of the University or College you wish to attend for specific requirements.

A.S. DEGREE PROGRAM IN HOME ECONOMICS

This program leads to a 2-year degree in Home Economics. Most but not all courses are transferable to a 4-year college. Consult your counselor concerning fulfilling requirements.

CORE REQUIREMENTS

	Units
H.E.C 111 Techniques of Fit	3
H.E.C 115 Intermediate Clothing Const.	3

and/or

H.E.C 116 Advanced Construction/Tailoring	3
H.E.C 117 Fashion Image	3
H.E.C 307 Food Preparation	3

or

H.E.C 320 Applied Nutrition	
Cooking for Health	3
H.E.C 310 Nutrition	3
H.E.C 410 Management of Time & Resources	2
H.E.C 416 Consumer Decision Making	

or

BUS. 131 Money Management	3
H.E.C 420 Computer Applications/H. Mgt.	1
Total	21
General Educ. Requirements	18
Electives (see counselor for list of suggested electives for different interest areas of H.Ec.)	21
Total	60

A.S. DEGREE IN TEXTILES & CLOTHING

	Units
Core requirements same as A.S. degree in H.Ec.	21
General Ed. Requirements same as in H.Ec.	18
Additional requirements:	
H.E.C 113 Textiles	3
H.E.C 118 Flat Pattern Design	3
H.E.C 123 Intro. to Fashion Industry or H.E.C 150 History of Fashion	1-3
H.E.C 120 Creative Clothing Const.	3
Electives	9-11
Total	60

CERTIFICATE PROGRAM—

GENERAL HOME ECONOMICS		Units
Core H.E.C courses (same as A.S. Degree)		21
Electives in Home Economics		6
Total		27

CERTIFICATE PROGRAM—

TEXTILES & CLOTHING		Units
(Emphasis on custom dressmaking & apparel design)		

15 units from Group A:	
H.E.C 110 Beg. Clothing Construction	3
H.E.C 111 Techniques of Fit	1-3
H.E.C 112 Knits & Wovens	1-3
H.E.C 113 Textiles	3
H.E.C 115 Intermed. Clothing Const.	3
H.E.C 116 Advanced Construction/Tailoring	3
H.E.C 125 Alterations	1.5

H.EC 127 Custom Dressmaking	1.5
H.EC 150 History of Fashion	1-3
15 units from Group B:	
H.EC 117 Fashion Image	3
H.EC 118 Flat Pattern Design	3
H.EC 120 Creative Clothing Const.	3
H.EC 123 Intro. to Fashion Industry	3
H.EC 124 Art in Clothing	3
H.EC 151 Fashion Merchandising	3
H.EC 410 Management of Time & Resources	2
H.EC 420 Computer Applications/H. Mgt.	1
Selected construction electives, including:	
H.EC 699 Clothing Construction Lab	0.5-4
Total	30

SUGGESTED ELECTIVES FOR TRANSFER AND

A.S. DEGREE PROGRAMS	
H.EC 110 Beg. Clothing Construction	3
H.EC 113 Textiles	3
H.EC 312 Nutrition/Health/Disease	3
H.EC 699 Open Lab for Clothing Const.	0.5-4
INTD 115 Your Home & Your Environment	3
PSYC 201 Child Development	3

INTERIOR DESIGN

The Interior Design Department offers programs designed for individuals interested in preparing for careers in the professional fields of interior design, home furnishings and merchandising. Included in this program are a transfer program, an A.S. Degree program, a Kitchen and Bath Certificate Program, and four certificated programs to meet the minimum qualifying requirements for the American Society of Interior Designers

degree program and will not satisfy the preparations required for a major leading to a B.A. or B.S. Degree.

CORE CURRICULUM

(recommended sequence)	Units
INTD 115 Your Home & Environment	3
INTD 148 Color for Interiors	3
ARCH 110 Basic Architectural Drawing	3
ART 201 Form & Composition	
or	
ART 301 Design	
or	
ART 204 Drawing	3

INTD 125 Detailing Interiors	3
INTD 160 Decorating Techniques	3
INTD 150 History of Interiors	3
INTD 450 Home Furn. Consumer (Fall only)	3
INTD 147 Space Planning	3
INTD 330 Architectural Inter. Detailing	3
INTD 146 Graphics for Interiors	3
INTD 170 Fabrics for Interiors (Spring only)	3
INTD 250 Professional Practices	3
INTD 245 Internship in Home Furnishings	1
Total	40
General Educ. Requirements	18
P.E.	2
Total	60

CERTIFICATE PROGRAMS

CERTIFICATE PROGRAM/WITH EARNED A.S. DEGREE INTERIOR DESIGN/COMMERCIAL DESIGN

For students who have completed an A.S. Degree in Interior Design at Cañada College, this certificate may be applied toward an associate membership in A.S.I.D.

CORE REQUIREMENTS

(recommended sequence)	Units
INTD 260 Fundamentals of Lighting (Spring only)	2
ART 103 History of Modern Art	
or	
ART 110 Art Appreciation/Intro. to Art	3
INTD 156 Portfolio/Projects (Spring only)	3
INTD 245 Internship (any time after 1st Semester)	2
INTD 271 Fundamentals of Bath Design	2
INTD 340 Cabinetry & Furniture Design	3
INTD 350 Commercial Design	3
INTD 351 Advanced Commercial Design	3
INTD 354 Residential Building Systems	1.5
INTD 355 Commercial Construction	1.5
INTD 360 Computers for Interior Design (CAD)	3
Electives	3
Total	30

ELECTIVES (Recommended)

	Units
ART 214 Color	3
ART 231 Watercolor	3
BUS. 430 Intro to IBM-PC	1.5
INTD 180 Contract Design	3
INTD 270 Fundamentals of Kitchen Design	3
INTD 274 Remodeling Construction	3
INTD 278 Marketing & Salesmanship	3
INTD 320 Oriental Art/China & Korea	1
INTD 321 Oriental Art/Japan & S.E. Asia	1
INTD 322 Oriental Art/Ind., Jap., Phil	1
INTD 411 Home Decorating	3

CERTIFICATE PROGRAM/WITH EARNED A.S. DEGREE IN INTERIOR DESIGN/RESIDENTIAL

For students who have completed an A.S. Degree in Interior Design at Cañada College, this certificate may be applied toward an associate membership in A.S.I.D.

CORE REQUIREMENTS

(recommended sequence)	Units
INTD 245 Internship in Home Furnishing	1
INTD 320 Oriental Art/China & Korea	1
INTD 321 Oriental Art/Japan & S.E. Asia	1
INTD 322 Oriental Art/Ind., Jap., Phil	1
INTD 260 Fundamentals of Lighting	2
INTD 270 Fundamentals of Kitchen Design	3
ART 103 History of Modern Art	3
or	
ART 110 Art Appreciation/Intro. to Art	3

INTD 340 Cabinetry & Furniture Design	3
INTD 180 Contract Design (Fall only)	3
or	
INTD 350 Commercial Design	3
INTD 250 Professional Practices	3
INTD 156 Portfolio/Projects (Spring only)	3
INTD 278 Marketing & Salesmanship	3
Electives	3
Total	30

ELECTIVES (Recommended)	Units
ART 214 Color	3
ART 231 Watercolor	3
BUS. 420 Intro. to APPLE Computer	1.5
BUS. 430 Intro. to IBM-PC	1.5
INTD 271 Fundamentals of Bath Design	2
INTD 274 Remodeling Construction	3
INTD 276 Adv. Kitchen & Bath Design	3
INTD 411 Home Decorating	3
INTD 670 Coop. Education	1-4
INTD 690 Individual Projects	1-4

**CERTIFICATE PROGRAM IN INTERIOR DESIGN/
RESIDENTIAL WITH EARNED B.A OR B.S. DEGREE**

For students who have completed a B.A. or B.S. Degree in other disciplines. This certificate may qualify the student for an associate membership in A.S.I.D.

CORE REQUIREMENTS

(recommended sequence)	Units
INTD 115 Your Home & Environment	3
INTD 148 Color for Interiors	3
ARCH 110 Basic Architectural Drawing	3
ART 201 Form & Composition	
or	
ART 204 Drawing	
or	
ART 301 Design	3
INTD 125 Detailing Interiors	3
INTD 150 History of Interiors	3
INTD 450 Home Furn. Consumer (Fall only)	3
INTD 330 Architectural Inter. Detailing	3
INTD 147 Space Planning	3
INTD 170 Fabrics for Interiors (Spring only)	3
INTD 278 Marketing & Salesmanship	3
INTD 146 Graphics for Interiors	3
INTD 260 Fundamentals of Lighting	
(Spring only)	2
INTD 320 Oriental Art/China & Korea	1
INTD 321 Oriental Art/Japan & S.E. Asia	1
INTD 322 Oriental Art/India, Japan, Philippines	1
ART 103 History of Modern Art	
or	
ART 110 Art Appreciation/Intro. to Art	3
INTD 250 Professional Practices	3
INTD 180 Contract Design (Fall only)	
or	
INTD 350 Commercial Design	3
INTD 156 Portfolio/Projects (Spring only)	3
INTD 245 Internship	2
INTD 270 Fundamentals of Kitchen Design	3
INTD 271 Fundamentals of Bath Design	2
Total	60

**CERTIFICATE PROGRAM IN INTERIOR DESIGN/
COMMERCIAL DESIGN**

For students who have completed a B.A. or B.S. Degree in other disciplines. This certificate may qualify the student for associate membership in A.S.I.D.

CORE REQUIREMENTS

(recommended sequence)	Units
INTD 115 Your Home & Environment	3
INTD 148 Color for Interiors	3
ARCH 110 Basic Architectural Drawing	3
ART 201 Form & Composition	
or	
ART 204 Drawing	
or	
ART 301 Design	3
INTD 125 Detailing Interiors	3
INTD 150 History of Interiors	3
INTD 450 Home Furn. Consumer (Fall only)	3
INTD 330 Architectural Inter. Detailing	3
INTD 147 Space Planning	3
INTD 170 Fabrics for Interiors (Spring only)	3
INTD 146 Graphics for Interiors	3
INTD 260 Fundamentals of Lighting (Spring only)	2
ART 103 History of Modern Art	
or	
ART 110 Art Appreciation/Intro. to Art	3
INTD 250 Professional Practices	3
INTD 156 Portfolio/Projects (Spring only)	3
INTD 245 Internship	2
INTD 271 Fundamentals of Bath Design	2
INTD 350 Commercial Design	3
INTD 351 Advanced Commercial Design	3
INTD 354 Residential Building Systems	1.5
INTD 355 Commercial Construction	1.5
INTD 360 Computers for Interior Design (CAD)	3
Total	60

MANAGEMENT

The Management Program is designed to provide students with the basic underlying principles of management. Cañada College offers an A.S. Degree in management, and two management certificates: general management and public administration. The courses are primarily for those students who plan careers in management or who are already in supervisory positions and wish to increase their formalized learning in this subject area. Management for both the governmental and business organizations are presented in the programs. **Courses specifically required for the student's major must be evaluated by a letter grade, not by the credit (CR) grade.**

CAREER OPPORTUNITIES

The career opportunities for those with supervisory and management training are expected to be excellent during the foreseeable future. Increasingly, employers are seeking persons with formal training in organization and management for supervisory, mid-level, and top management positions.

A.S. DEGREE AND CERTIFICATE PROGRAMS

The certificate in management can be earned in two specific areas: General Management and Public Administration. The certificate will be awarded by Cañada College upon completion of the required courses, plus additional electives totaling a minimum of 24 units. The 24 units earned in the certificate program will fulfill the major requirements for an A.S. Degree.

GENERAL MANAGEMENT CERTIFICATE

CORE REQUIREMENTS	Units
MGMT 100 Management Theory	3
MGMT 120 Management Communication	3
MGMT 215 Management of Human Resources	3
MGMT 235 Techniques of Supervision	3
Plus, select 12 units	
from the following:	12
Total	24

ACTG 121 Financial Accounting	
ACTG 131 Managerial Accounting	
BUS. 101 Human Relations	
BUS. 103 Intro. to Bus. Computer Systems	
BUS. 415 Introd. Keyboarding/Typewriting	
BUS. 431 Microcomputer Fundamentals	
BUS. 432 Microcomputer Word Processing	
BUS. 434 Microcomputer Spreadsheet	
BUS. 436 Microcomputer Data Base Mgmt.	
BUS. 438 Microcomputer Graphics	
MGMT 105 Financial Management	
MGMT 130 Labor Relations for Management	
MGMT 136 Budgeting and Planning	
MGMT 137 Performance Measurement Techniques	
MGMT 220 Organizational Behavior	3
MGMT 225 Office Management	
MGMT 240 Organizational Leadership	
MGMT 670 Cooperative Education	
MGMT 801 Selected Topics in Mgmt	

A.S. DEGREE

GENERAL MANAGEMENT	Units
Core Requirements	24
General Educ. Requirements	18
Electives:15 must be in the management or business	18

PUBLIC ADMINISTRATION CERTIFICATE

CORE REQUIREMENTS	Units
MGMT 120 Management Communication	3
MGMT 235 Techniques of Supervision	3
MGMT 281 Public Administration Management	3
MGMT 283 Personnel Administration	3
Plus, select 12 units	
from the following:	12
Total	24

ACTG 121 Financial Accounting	
ACTG 131 Managerial Accounting	
BUS. 103 Intro. to Bus. Computer Systems	
BUS. 415 Introd. Keyboarding/Typewriting	
BUS. 431 Microcomputer Fundamentals	
MGMT 100 Management Theory	
MGMT 130 Labor Relations for Management	
MGMT 136 Budgeting and Planning	
MGMT 137 Performance Measurement Techniques	
MGMT 225 Office Management	
MGMT 220 Organizational Behavior	

MGMT 282 Public Finance	
MGMT 670 Cooperative Education	
MGMT 801 Selected Topics in Mgmt	
PLSC 310 California State & Local Government	

A.S. DEGREE

PUBLIC ADMINISTRATION	Units
Core Requirements	24
General Educ. Requirements	18
Electives:15 must be in the management or business	18

MICROCOMPUTER APPLICATIONS CERTIFICATE PROGRAM

The Microcomputer Applications Certificate Program prepares students for entry-level positions in local offices of any company. The program is also of benefit to persons whose primary jobs are not computer-related. Students are able to learn to use software in the following areas: data base management, word processing, spreadsheet, telecommunications, and graphics. The computer can be used as a tool in business, education, and/or at home.

Students may custom design the certificate program by choosing electives from one of three areas: business/accounting; business/office skills and/or programming.

If you are interested in earning an A.S. degree, you should consult your counselor immediately after enrolling in the certificate program.

Courses specifically required for the student's major (core certificate requirements) must be evaluated by a letter grade, not by the credit (CR) grade.

CAREER OPPORTUNITIES

Graduates may be able to find work in almost any company where microcomputers are used. They may also find work more easily in noncomputer fields because of their skills. Since computers are used in most businesses, the opportunities for persons obtaining this certificate should be especially broad.

CERTIFICATE PROGRAM—

CORE REQUIREMENTS	Units
BUS. 101 Human Relations in Business	3
BUS. 415 Introd. Keyboarding/Typewriting	1-3
BUS. 431 Microcomputer Fundamentals	3
BUS. 432 Microcomputer Word Processing	3
BUS. 434 Microcomputer Spreadsheet	3
BUS. 436 Microcomputer Data Base Mgmt.	3
BUS. 438 Microcomputer Graphics	3
Electives: Select Area A, B, or C: (9 units minimum)	
Total	28-30

AREA A: BUSINESS/ACCOUNTING

Units	
ACTG 100 Accounting Procedures	3-5
ACTG 121 Financial Accounting	4-5
ACTG 131 Managerial Accounting	4-5
ACTG 171 Indiv. Federal Income Tax Procedures	3
ACTG 180 Payroll & Business Taxes	1.5
ACTG 190 Computerized Accounting	3
BUS. 100 Survey of Business	3
BUS. 450 Office Automation: Minicomputer	
Alternatives	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3

AREA B: PROGRAMMING	Units
COMP 151 Intro. to COBOL Programming	3
COMP 155 BASIC Programming	3
COMP 162 FORTRAN Programming	3
COMP 170 Intro. to Programming in Pascal	3
COMP 190 Intro. to C Programming	3
COMP 275 Assembly Language Programming	3
BUS. 103 Intro. to Bus. Computer Systems	3

AREA C: BUSINESS/OFFICE SKILLS	Units
BUS. 100 Survey of Business	3
BUS. 115 Business Mathematics	3
BUS. 400 Business English	3
BUS. 401 Business Communications	3
BUS. 402 WP: Machine Transcription or	
BUS. 413 Shorthand for the Electronic Office	1-3
BUS. 410 Office Internship	1-3
BUS. 416 Basic Office Skills	3
BUS. 450 Office Automation: Microcomputer Alternatives	3

A.S. DEGREE

MICROCOMPUTER APPLICATIONS

CORE REQUIREMENTS	Units
Certificate Core Requirements	28-30
General Education Requirements	18
Electives: Select from Area A, B, or C	12-14

MICROCOMPUTER TECHNICIAN

The Microcomputer Technician Program is designed to provide general theory and laboratory practice in basic electronics, digital devices, microprocessor and microcomputer technology.

Cañada College maintains a fully equipped electronics laboratory, which includes electronic trainers and test equipment, and uses the Motorola 6808 microprocessor in the single board microcomputer.

Students in this program can earn a Microcomputer Technician Certificate which will provide the technical skills necessary for entry-level employment.

CAREER OPPORTUNITIES

There is a variety of career opportunities available to Microcomputer Technicians for both in-house and field service technicians. An increasing number of personnel are needed for manufacturing, maintenance, and repair of electronic equipment and computer systems within the electronic industry.

A.S. DEGREE PROGRAM

This is an A.S. Degree program and will not satisfy the preparations required for a major leading to a B.S. degree.

CORE REQUIREMENTS

CTEC 400 Technical Calculations & Study Skills	3
CTEC 420 Direct & Alternating Current Fundamentals	5
CTEC 440 Semiconductor Devices & Circuits	2.5
CTEC 460 Digital Devices & Circuits	5
CTEC 500 Microprocessor Principles	3.5
CTEC 520 Microprocessor Interfacing Applications	3.5
General Education Requirements	18
Electives	19.5
Total	60

CERTIFICATE PROGRAM MICROCOMPUTER TECHNICIAN

	Units
CTEC 400 Technical Calculations & Study Skills	3
CTEC 420 Direct & Alternating Current Fundamentals	5
CTEC 440 Semiconductor Devices & Circuits	2.5
CTEC 460 Digital Devices & Circuits	5
CTEC 500 Microprocessor Principles	3.5
CTEC 520 Microprocessor Interfacing Applications	3.5
Total	22.5

OFFICE SKILLS

See **BUSINESS/OFFICE SKILLS**

PARALEGAL

The Paralegal Program at Cañada was developed in cooperation with the San Mateo County Bar Association and the San Mateo County Legal Secretaries Association to train 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. **Courses specifically required for the student's major (core certificate requirements) must be evaluated by a letter grade, not by the credit (CR) grade.**

The certificate and degree programs are offered only during the evening program at the present time. The certificate will be awarded by Cañada College upon completion of the required courses, plus additional electives totaling a minimum of 27 units. The 27 units earned in the certificate program will fulfill the major requirements for an A.S. degree.

CAREER OPPORTUNITIES

The paralegal profession offers expanding job opportunities in the Bay Area for persons trained to work in law-related occupations.

CERTIFICATE PROGRAM—CORE REQUIREMENTS

This is program will not satisfy the preparations required for a major leading to a B.A. or B.S. Degree.

CORE REQUIREMENTS

	Units
LEGL 250 Legal Research & Bibliography*	2
LEGL 252 Trial Preparation & Legal Ethics**	3
LEGL 259 Intro. to Legal Systems	3
Plus, select 18 units from the Legal courses:	18
Total	27

SUGGESTED ELECTIVES

	Units
LEGL 251 Torts & Contracts	3
LEGL 253 Probate Administration	3
LEGL 254 Family Law	3
LEGL 255 Corporations & Business Entities	3
LEGL 256 Real Estate & Landlord-Tenant	3
LEGL 257 Bankruptcy & Debt Collection	3
LEGL 258 Adv. Trial Preparation**	3
LEGL 260 Adv. Legal Research & Writing**	3
LEGL 670 Cooperative Education	1-4
LEGL 801 Paralegal Update Course .....	.5-1

*Prior to or concurrent with LEGL 259.

LEGL 259 must be taken **prior to, not concurrently with this course.

Annual law update courses are taught during the Spring semester each year. Look for the announcement of these courses after January 1 each year.

A.S. DEGREE—PARALEGAL

Core Requirements	27
General Educ. Requirements	18
Electives: Select from business courses	15

PHILOSOPHY

One of the most persistent subjects of human concern, philosophy is disciplined reflection on the human condition. It can be an analysis and criticism of ideas and statements, or an attempt to synthesize all experience and knowledge, or an exploration of the meaning of life and how best to live it. Critical thinking is developed while examining people's responses to fundamental questions.

CAREER OPPORTUNITIES

As a profession, philosophy is virtually limited to those who teach and write it. It provides, however, a basis for a broad liberal arts education, valuable for its own sake, as well as preparation for careers in related professional humanistic or social disciplines. Philosophy serves as good preparation for careers in law, management, publishing, ministry, library science, labor relations, medicine, government administration, educational research and broadcasting, social work, and data processing and information systems.

TRANSFER PROGRAM

Most job opportunities require the minimum of a B.A. Degree. Students can fulfill General Education and lower division social science and humanities requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
PHIL 100 Introduction to Philosophy	3
HIST 100 History of Western Civilization	3
HIST 101 History of Western Civilization	3
PHIL 190 Contemporary Philosophy	3
PHIL 200 Introduction to Logic	3
or	
PHIL 103 Critical Thinking	3
PHIL 240 Introduction to Ethics	3
ANTH 110 Cultural Anthropology	3
PSYC 100 General Psychology	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. Degree in Philosophy must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18–24 units in the area of concentration, with the balance of the 60 units in elective courses.

OTHER COURSES IN PHILOSOPHY

	Units
PHIL 160 History of Philosophy	
Ancient & Medieval	3
PHIL 175 History of Philosophy	
16th to 18th Century	3
PHIL 300 Introduction to World Religions	3
PHIL 310 Philosophy of Religion	3
PHIL 320 Asian Philosophy	3
PHIL 650 Seminar in Philosophy	3
PHIL 680 Selected Topics in Philosophy	3

POLITICAL SCIENCE

Political Science is the study of the theory and practice of government and politics, and of learning to be an effective citizen. It explores the process through which a group selects its leaders, determines its policies, reinforces its values and allocates advantages and disadvantages to its members.

CAREER OPPORTUNITIES

Background in political science and government prepares students for a wide range of careers. Law, foreign service, political office, or positions with government agencies are frequent choices. Other possibilities include legislative aide, lobbyist, budget analyst, city planner, public opinion surveyor, public information officer, campaign aide, operations or occupational analyst.

TRANSFER PROGRAM

Many job opportunities require at least a B.A. degree. Students can fulfill General Education and lower division social science requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
PLSC 150 Intro. to Political Theory	3
PLSC 210 American Politics	3
PLSC 310 California State & Local Government	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
HIST 201 United States History to 1865	3
HIST 202 United States History Since 1865	3
HIST 100 History of Western Civilization	3
HIST 101 History of Western Civilization	3
SOSC 122 Social Sciences Research Methods	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Political Science must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18–24 units in the area of concentration, with the balance of the 60 units in elective courses.

OTHER COURSES IN POLITICAL SCIENCE

	Units
PLSC 205 American Society	5
PLSC 680 Selected Topics in Political Science	1–3

PSYCHOLOGY

Psychology, a natural and social science, is concerned with the study of human and animal behavior. While the individual is usually the focal point, as in personality, developmental, clinical and counseling areas, the influence of groups on the individual is also considered. A broad discipline, psychology involves both pure science and practical application to everyday living.

CAREER OPPORTUNITIES

Professional level positions, such as psychologists and counselors, usually require advanced degrees. However, psychology is an excellent preparation for careers as personnel managers, psychometrists, survey designers, psychiatric aides, probation officers, social services directors, mental health workers, drug abuse or employment counselors, or training officers.

TRANSFER PROGRAM

Most job opportunities in psychology require the minimum of a B.A. degree. Students can fulfill General Education and lower division social science and science requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
PSYC 100 General Psychology	3
PSYC 300 Social Psychology	3
ANTH 110 Cultural Anthropology	3
SOSC 122 Social Science Research Methods	3
*BIOL 110 Principles of Biology or	4
*BIOL 130 Human Biology	4
*PSIO 260 Human Physiology	5
*CHEM 210 General Chemistry	5

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

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Psychology must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

OTHER COURSES IN PSYCHOLOGY

	Units
PSYC 108 Psychology in Practice	3
PSYC 110 Marriage & Relationship Choices	3
PSYC 201 Child Development	3
PSYC 202 Adolescent Behavior	3
PSYC 210 Early Childhood Education Principles	1-3
PSYC 211 Early Childhood Education Curriculum	1-3
PSYC 212 Child, Family & Community	3
PSYC 221 The Special Child	3
PSYC 223 Infant Behavior	3
PSYC 278 The Psychological Experience of La Raza in the U.S.	3
PSYC 300 Social Psychology	3
PSYC 340 Psychology of Human Sexuality	1.5-3
PSYC 370 Introduction to Counseling	3
PSYC 391 Parenting	3
PSYC 670 Cooperative Education	1-4
PSYC 680 Selected topics in Psychology	1-3

SECRETARIAL/CLERICAL

See **BUSINESS/OFFICE SKILLS**

SOCIAL SCIENCE

The social science designation is used for courses which are concerned with more than one social science or which can be applied to a variety of disciplines. There is no specific degree or transfer program.

SOCIOLOGY

Both a scientific and humanistic discipline, sociology is concerned with the study of systems of social action and their interrelations. It attempts to discover the factors that determine social organization and behavior, and promotes an understanding of the social world from personal problems to public issues.

CAREER OPPORTUNITIES

Sociology provides students with career choices ranging far beyond being a sociologist. Possibilities include becoming a social worker, demographer, social ecologist, industrial sociologist, public health statistician, criminologist, public relations consultant, population or public opinion analyst, employment counselor, social research trainee, manpower development specialist, claims examiner, or interviewer.

TRANSFER PROGRAM

Most job opportunities in sociology require the minimum of a B.A. degree. Students can fulfill General Education and lower division social science requirements at Cañada.

RECOMMENDED TRANSFER PROGRAM

	Units
SOCI 100 Introduction to Sociology	3
SOCI 105 Social Problems	3
SOCI 141 Minorities in American Society	3
SOSC 122 Social Science Research Methods	3
SOSC 200 Intro. to Communication Skills	3
ANTH 110 Cultural Anthropology	3
ECON 100 Principles of Macro Economics	3
ECON 102 Principles of Micro Economics	3
PSYC 100 General Psychology	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Sociology must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in natural science, social science, humanities, learning skills, and ethnic studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

OTHER COURSES IN SOCIOLOGY

SOCI 100 Introduction to Sociology	3
SOCI 101 Survey of Criminal Justice System in American Society	3
SOCI 120 Intro. to Gerontology	3
SOCI 126 Juvenile Delinquency	3
SOCI 350 Intro. to Corrections	3
SOCI 360 Intro. to Criminology	3

STATISTICS

For descriptions of courses in statistics, see Mathematics 200.

TRAVEL INDUSTRY CAREERS/TOURISM

The Cañada College Travel Industry Careers/Tourism program is designed to prepare students with the job skills required for employment in the travel industry and to provide training for those already in the travel industry who wish to upgrade their skills. In addition to the entry-level courses in Tourism, emphasis is placed on advanced training not usually available in Tourism programs at other schools. Our goal is to provide the travel industry with highly skilled travel professionals who will not require additional on-the-job training to be fully productive. We also encourage those already employed in the travel industry to attend our courses to upgrade their skills and qualify for advancement.

CAREER OPPORTUNITIES

In the airlines, career opportunities include reservations agent, ramp agent, ticket counter agent, and customer service representative. Retail Travel Agency opportunities include commercial travel sales, vacation travel sales, group travel specialist, and outside sales representative. Job opportunities in Wholesale Travel include reservations sales, operations staff, and public relations.

CORE CURRICULUM REQUIRED

	Units
TOUR 100 Travel Industry Reference Materials	3
TOUR 101 Selling Travel	3
TOUR 721 Domestic Airline Tariff & Ticketing	3
TOUR 715 F.I.T. Planning & Costing	3
TOUR 722 Adv. Domestic Airline Tariff & Ticketing	3
TOUR 725 Internat'l Airline Tariff & Ticketing	3
Total	18

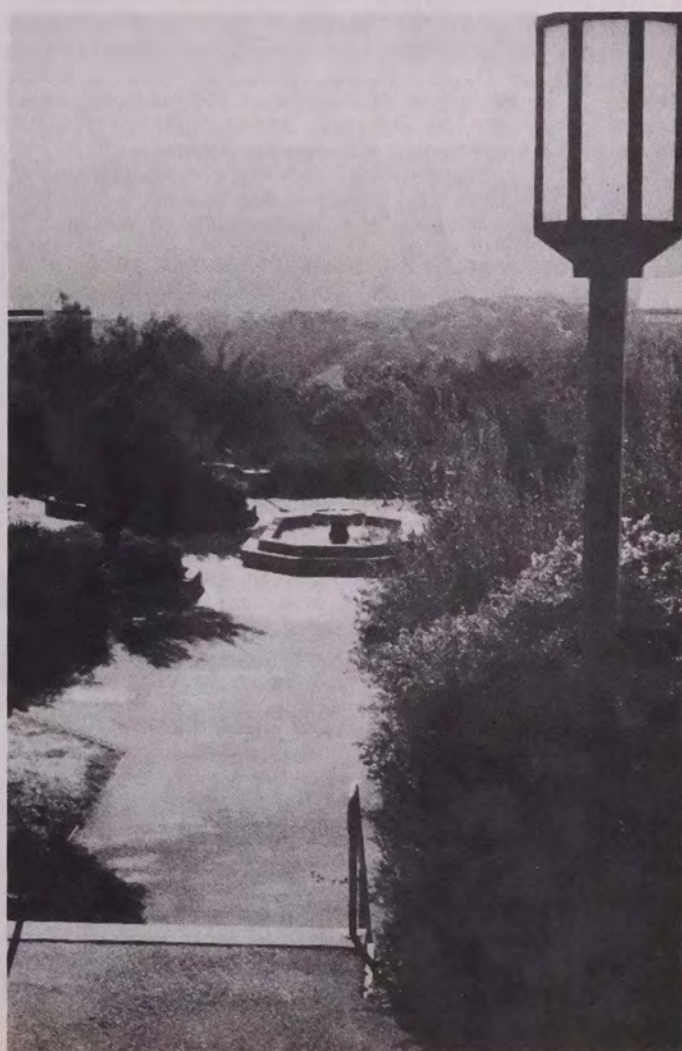
RETAIL TRAVEL CERTIFICATE	Units
Core Curriculum (as stated above)	18
TOUR 710 A.R.C. Forms & Procedures	3
TOUR 711 Airline Computer Training (CRT)	3
Six units of electives selected from the following list:	6
GEOG 100 Physical Geography (3)	
GEOG 110 Cultural Geography (3)	
GEOG 150 World Regional Geography (recommended for Tourism majors) (3)	
HIST 100 History of Western Civilization (recommended for Tourism majors) (3)	
ANTH 105 Peoples & Cultures of the World (3)	
ANTH 370 Pre-Columbian Peoples & Cultures of Mexico & Central America (3)	
TOUR 103 Travel Destinations/Europe (3)	
TOUR 104 Travel Destinations/World (3)	
TOUR 105 Travel Destinations/North America (3)	
TOUR 200 Intro. to Hospitality & Tourism (3)	
Total	30

WHOLESALE TRAVEL CERTIFICATE	Units
Core Curriculum (as stated above)	18
TOUR 731 Wholesale Tour Operations	3
TOUR 732 Adv. Wholesale Tour Operations	3
Six units of electives selected from list under Retail Certificate	6
Total	30

SPECIAL TRAINING CERTIFICATES

INSTITUTE OF CERTIFIED TRAVEL AGENTS (I.C.T.A.)

Cañada College also offers the four-semester Institute of Certified Travel Agents program of certification of travel industry professionals (C.T.C.). TOUR 750, 751, 752, and 753 are available for travel industry personnel preparing for certification exams and also as electives for students in the Tourism program who wish to prepare themselves with the management-level skills needed by travel industry executives. (Contact the Tourism Office for information about certification fees.)



50 HUMANITIES DIVISION

DEPARTMENTS

Art
Drama
English
English Institute
Foreign Languages
Humanities
Journalism
Library Science
Music
Speech

ART

The Art Department at Cañada College affords a unique experience to the serious student seeking a sound foundation in aesthetics and skill development. The faculty is composed of artist-teachers whose personal sensibilities range from the Classical to the Expressionist. The program has been designed to offer a continuity of study through structured courses based on the life-time experiences of each of the artist-teachers. The ultimate goal of the program is to support each student in the search for a personal form and the development of capabilities by which this form can be manifested.

CAREER OPPORTUNITIES

Arts Administrator, Art Therapist, Art Critic, Art Dealer, Advertising Specialist, Ceramist, Commercial Ceramist, Color Expert, Display Design, Painter, Design Consultant, Gallery Director, Graphic Artist, Photographer, Historian, Illustrator, Jewelry Designer, Printmaker, Merchandising Designer, Teacher, Sculptor, Muralist, Community Artist.

TRANSFER PROGRAM

SUGGESTED CURRICULA	Units
ART 101 History of Art I	3
ART 102 History of Art II	3
ART 103 History of Art III	3
ART 201 Form and Composition I	3
ART 202 Form and Composition II	3
ART 204 Drawing I	3
ART 205 Drawing II	3
ART 214 Color	3
ART 221 Painting I	3
ART 231 Water Color I	3
ART 234 Printmaking I	3
ART 405 Sculpture I	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Art must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural Science, Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

BILINGUAL COMPETENCY CERTIFICATE PROGRAM

The purpose of the Bilingual Competency Program is to establish recognition of bilingual competence by native language experience or through acquisition of language skills. The Bilingual Certificate certifies bilingual proficiency in the following areas: Spanish/English, French/English, and German/English. In order to be eligible for the certificate, an applicant must satisfy the requirements of both I and II below.

I.

- Have completed one year's residence at Cañada College or have completed 24 units at the college, or be in substantial completion of one year's residence or 24 units (via work in progress);
- Have taken and completed (or be near completion of) 3 approved courses in English at the college with a grade average in those approved English courses of "B" or better;
- Have taken and completed (or be near completion of) 3 approved courses in either French, German, or Spanish at the college with a grade average in those approved language courses of "B" or better;
- Have the equivalent of B and C above with a minimum of 12 units of residence at Cañada College.

Note: Language classes in which the student receives a grade of Credit only, rather than a letter grade, cannot be applied towards the certificate.

II.

- Make a passing score on the written examinations required in both the native and the acquired language;
- Demonstrate proficiency in both the native and the acquired languages by satisfactorily completing an oral interview.

For further information on the Bilingual Competency Program, please contact the Office of Admissions and Records.

DRAMA

The Cañada College Drama Department presents a program rich in depth and diversity. Students—whether pursuing a career in the theatre arts or simply desiring creative expression—will find in the drama department, not only a comprehensive schedule of pertinent courses, but also an extensive opportunity to put their developing knowledge and talent to work in performing on stage, in technical work, or in both. Because the department produces eight plays during the year, a student has the opportunity to work with at least three different directors and in plays ranging from comedy to heavily dramatic works.

The Cañada Drama Department can point with satisfaction to a significant and steadily growing number of its former students who go on to professional stage, movie, and television work—performing, producing, and technical—and also to the many gratified amateurs.

It should be emphasized that the drama program is designed for students of all levels of experience—beginning, intermediate, and advanced.

CAREER OPPORTUNITIES

Actor, Actress, Agent, Costume Specialist, Critic, Floor Manager, Lighting Designer, Make-up Artist, Motion Picture Narrator, Musical Director, Playwright, Producer, Programmer, Publicity Specialist, Radio/TV Announcer, Scenic Designer, Set Builder, Sound Effects Technician, Stage Hand, Story Teller, Teacher, Theatre Manager.

TRANSFER PROGRAM

SUGGESTED CURRICULA	Units
DRAM 140 Introduction to Theatre	3
DRAM 142 Early Drama	3
DRAM 143 Modern Drama	3
DRAM 200 Fundamentals of Acting	3
DRAM 201 Principles of Acting I	3
DRAM 202 Principles of Acting II	3
DRAM 203 Principles of Acting III	3
DRAM 208 Acting Practicum I	1-2
DRAM 209 Acting Practicum II	1-2
DRAM 210 Acting Practicum III	1-2
DRAM 211 Acting Practicum IV	1-2
DRAM 248 Make-up	1
DRAM 300 Play Production	0.5-2

DRAM 305 Technical Production	0.5-2
DRAM 338 Costume Workshop	1-2

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Drama must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural Science, Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

ENGLISH

The English Department at Cañada College offers a faculty whose special fields range from medieval to modern and from Asian to American, who are published writers, and who are, above all, dedicated and accomplished teachers. Courses offered cover English, European, Russian, American, Mexican-American, and Native-American literature; English and American language; expository and creative writing; critical and analytical reading. A Major in English equips the student with a wide variety of intellectual skills and prepares him for many correlated career opportunities.

CAREER OPPORTUNITIES

Advertising Person, Business Administrator, Civil Servant, Columnist/Journalist, Contract Specialist, Editor, Information Specialist, Insurance Examiner, Interpreter, Lawyer, Legislative Assistant, Lexicographer, Librarian, Manager, Methods Analyst, Program Developer, Public Relations Person, Publisher, Researcher, Teacher, Technical Writer, Writing Consultant.

TRANSFER PROGRAM

SUGGESTED CURRICULA	Units
ENGL 100 Reading and Composition	3
ENGL 110 Composition and Literature	3
LIT. 151 Shakespeare I	3
LIT. 152 Shakespeare II	3
LIT. 231 Survey of English Literature I	3
LIT. 232 Survey of English Literature II	3
LIT. 233 Survey of English Literature III	3
Two additional literature courses	6
Foreign Language	0-10
HIST 100 History of Western Civilization I	3
HIST 101 History of Western Civilization II	3
PHIL 100 Introduction to Philosophy	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in English must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural Science, Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

JOURNALISM

Journalism, the pursuit and discovery of information about current human events, is the presentation of history as it happens. The Journalism Department at Cañada provides students with instruction in the historical background and modern functioning of the press in a democratic society; in the techniques of news gathering; of judging news values, and of writing the news story; and in the principles of responsible editorial decision-making.

CAREER OPPORTUNITIES

Advertising Assistant, Columnist, Continuity Writer, Copy Editor, Correspondent, Editorial Assistant, Editorial Writer, Ghost Writer, Interviewer, Journalist, Layout Artist, Legislative Assistant, Magazine Writer, Photographer, Press Relations Officer, Printing/Publication Officer, Proof Reader, Public Affairs Manager, Public Information Specialist, Radio/TV Announcer, Reporter, Script Editor, Speech Writer, Technical Writer/Editor.

TRANSFER PROGRAM

SUGGESTED CURRICULA	Units
JOUR 110 Introduction to Journalism	3
JOUR 120 Newswriting	3
ENGL 100 Reading and Composition	3
ENGL 110 Composition and Literature	3
PSYC 100 General Psychology	3
SOCI 100 Introduction to Sociology	3
SPCH 100 Fundamentals of Speech	3

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Journalism must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural and Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

MUSIC

"In a world of political, economic, and personal disintegration, music is not a luxury but a necessity, not simply because it is therapeutic nor because it is the 'universal language,' but because it is the persistent focus of man's intelligence, aspiration, and good will." Robert Shaw.

The Music Department at Cañada College, through its outstanding faculty, places strong emphasis upon performance, both individual and group. At the same time, the department offers the general student enhanced understanding and appreciation of all forms of music. Through this two-fold approach, the department's purpose becomes clear: to promote excellence in all aspects of music performance and academic course work, to provide basic preparation for careers in music, and to promote interest in all musical and artistic endeavors at the college and in the Bay Area community.

CAREER OPPORTUNITIES

Conductor, Choir Director, Soloist, Music Therapist, Teacher, Music Librarian, Composer, Nightclub Entertainer, Popular Singer, Opera Singer, Recreation Specialist, Arranger, Instrumentalist, Critic, Accompanist, Minister of Music, Professional Manager, Symphony Orchestra Member, Music Publisher, Music Producer, Movie/TV/Radio Music Director, Lyricist.

TRANSFER PROGRAM

SUGGESTED CURRICULA	Units
MUS. 101 Musicianship I	2
MUS. 102 Musicianship II	2
MUS. 131 Harmony I	3
MUS. 132 Harmony II	3
MUS. 135 Comprehensive Musicianship	2
MUS. 202 Music Appreciation	3
MUS. 496 Musical Recitals	2
Applied Music classes	4
Performance classes	8

All music majors should include four semesters of piano or keyboard harmony in addition to the above.

ASSOCIATE IN ARTS DEGREE PROGRAM

Students wishing an A.A. degree in Art must complete 60 units of lower division college work with a minimum overall grade point average of 2.0. Courses in Natural Science, Social Science, Humanities, Learning Skills, and Ethnic Studies areas (minimum of one in each) must be taken. In addition, students will take 18-24 units in the area of concentration, with the balance of the 60 units in elective courses.

SPEECH

The Speech Department at Cañada College offers classes in the two primary forms of verbal communication: public address (rhetoric), and conversation or private discourse (dialectic). The department also offers a course in Oral Interpretation of Literature (reading aloud from the printed page), which, though concerned with neither rhetoric nor dialectic, is closely related to both of those forms of verbal address. The instructors in this department emphasize the necessity of strong and logically structured argument, at the same time recognizing the primacy of humane and empathetic elements in human communication. Speech classes at Cañada College are designed to encourage students to understand and use the traditional elements and devices of "good" speaking, while learning how to apply that understanding to their personal speaking styles.

CAREER OPPORTUNITIES

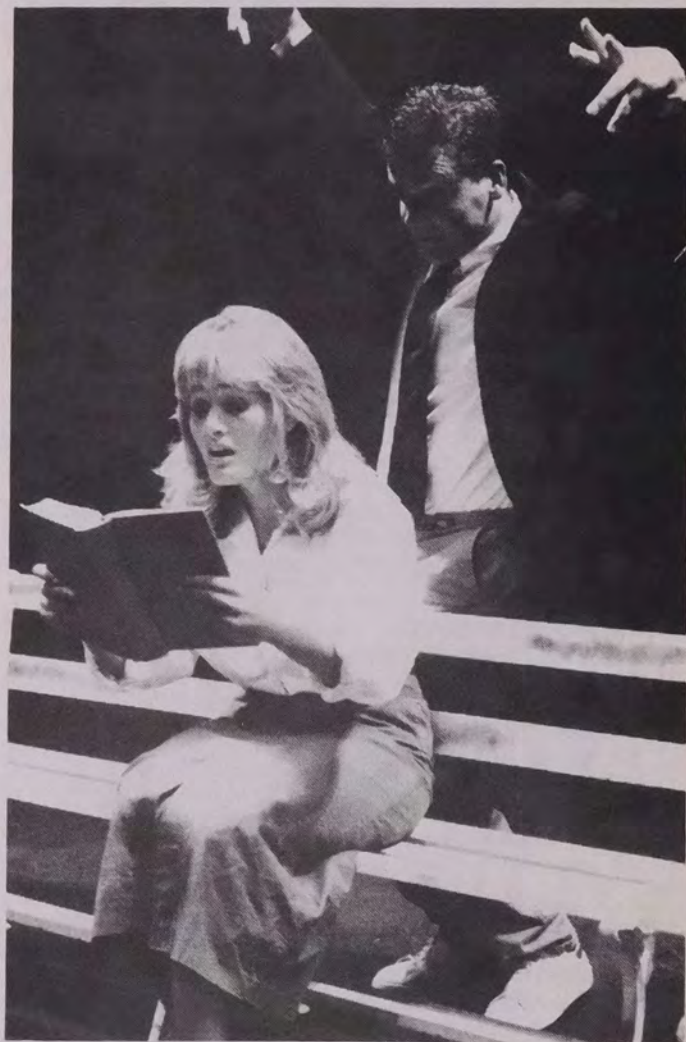
Consultant, Communications Researcher, Radio/TV Announcer, Copy Editor, Interviewer, Columnist, Editorial Writer, Speech Writer, News Analyst, Script Editor, Public Affairs Manager, Playwright, Marketing Field Director, Media Specialist, Legislative Assistant, Journalist, Editorial Assistant, Proof Reader, Public Information Specialist, Lawyer, Teacher.

TRANSFER PROGRAM

SUGGESTED CURRICULA

Units

SPCH 100 Fundamentals of Speech	3
SPCH 111 Oral Interpretation	3
SPCH 120 Interpersonal Communication	3
SPCH 127 Argumentation	3
SPCH 140 Techniques of Group Discussion	3
ENGL 100 Reading and Composition	3
ENGL 110 Composition and Literature	3
PSYC 100 General Psychology	3
SOCI 100 Introduction to Sociology	3
ANTH 110 Cultural Anthropology	3



All courses and curricula listed in this catalog will not necessarily be offered during 1987-1988. Courses are offered at the discretion of the College in accord with its determination 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 just under 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:

670 COOPERATIVE EDUCATION—WORK EXPERIENCE.

Units (Grade Option) 1-4
Class Hours 4-6 lecture hours/semester
(on/job—75 to 300 hours/semester)

Prerequisites: Enrollment in 7 units,
including Co-op Education.

Description: Students' jobs must be related to their *occupational* goals. Activities include setting measurable learning objectives appropriate for the student's job, supervised work experience, limited classroom meetings, and individual conferences with an instructor-coordinator. May be repeated for credit.

680 SELECTED TOPICS.

Units (Grade Option) 1-3
Class Hours By Arrangement
Prerequisites: None

Description: Selected topics not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative, experimental courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. May be repeated for credit.

690 RESEARCH PROJECTS.

Units 1-2
Class Hours By Arrangement
Prerequisites: Two previous courses in the discipline, or concurrent enrollment in the second course, and an overall 3.0

GPA in the department.

Description: Research projects in a particular discipline. Content to be arranged with individual faculty member and approved by appropriate Division Director. No student may enroll in more than two research courses per semester. May be repeated for credit for a maximum of four units.

695 INDEPENDENT STUDY.

Units 1-3
Class Hours By Arrangement
Prerequisites: None

Description: Self-paced individualized instruction in selected topics to be arranged with individual faculty member and approved by appropriate Division Director. Varying modes of instruction. May be repeated for credit.

880 OTHER SELECTED TOPICS.

Units (Grade Option) 1-3
Class Hours By Arrangement
Prerequisites: None

Description: Selected topics not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative, experimental courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Not designed for transfer credit. May be repeated for credit.

895 OTHER INDEPENDENT STUDY.

Units 1-3
Class Hours By Arrangement
Prerequisites: None

Description: Self-paced individualized instruction in selected topics to be arranged with individual faculty member and approved by appropriate Division Director. Varying modes of instruction. Not designed for transfer credit. May be repeated for credit.

ACCOUNTING

ACTG 100 ACCOUNTING PROCEDURES.

Units (Grade Option) 3-4
Class Hours 3-4 lecture hours/week
Prerequisites: BUS. 110 or 115 recommended.

Description: Introduction to accounting procedures and the use of a double-entry bookkeeping system. Course is designed for students who wish to have a basic understanding of accounting procedures.

ACTG 121 FINANCIAL ACCOUNTING.

Units 4-5
Class Hours 4-5 lecture hours/week
Prerequisites: None

Description: Emphasis on accepted accounting standards in the preparation of financial information. Covers transaction analysis and information processing for reporting financial position, income measurement, and resources generated and used. Interpretation and use of financial statements. Required for all business major transfer students.

ACTG 131 MANAGERIAL ACCOUNTING.

Units 4-5
Class Hours 4-5 lecture hours/week
Prerequisites: ACTG 121 or equivalent
with a grade of C or better.

Description: 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. Recommended for all business major transfer students.

ACTG 171 INDIVIDUAL FEDERAL INCOME TAX PROCEDURES.

Units (Grade Option) 3
Class Hours 3 lecture hours/week
Prerequisites: None

Description: Fundamentals of income taxation. Study of the internal revenue code, income tax regulations, and other reference material used in tax issues pertaining to individuals.

ACTG 180 PAYROLL AND BUSINESS TAXES.

Units 1.5
Class Hours 1.5 lecture hours/week
Prerequisites: ACTG 100 or 121 or equivalent.

Description: A review of payroll accounting procedures including state and federal laws and regulations. Also, a review of the California sales tax regulations and requirements for declarations of real and personal property valuation. Major emphasis is on the preparation of payrolls utilizing traditional payroll methods but including illustrations of pegboard and computerized systems. (Offered Spring only.)

ACTG 190 COMPUTERIZED ACCOUNTING.

Units 3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: ACTG 100 or 121.
 Description: The study of accounting utilizing a microcomputer and accounting software for five systems: general ledger, accounts receivable, accounts payable, depreciation, and payroll.

ACTG 212 MANUFACTURING ACCOUNTING.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture hours/week
 Prerequisites: ACTG 100 or 121.
 Description: A practical approach to manufacturing accounting systems utilizing both job order and process cost accounting techniques. An introduction to standard cost accounting.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ADMINISTRATION OF JUSTICE**ADMJ 101 SURVEY OF THE CRIMINAL JUSTICE SYSTEM IN AMERICAN SOCIETY.**

(Also SOCI.101)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: History and philosophy of criminal justice in America, identification of the justice system's component parts and their interrelationships, and the effect of social change on the criminal justice system. An in-depth study of the functions and responsibilities of each sub-system of criminal justice (police, courts, corrections), and a study of the legal standards, social responsibilities and ethics of each sub-system which guide the process of serving justice.

ADMJ 104 CONCEPTS OF CRIMINAL LAW. (Also SOCI 104)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force.

ADMJ 126 JUVENILE DELINQUENCY. (Also SOCI 126)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey course examining various aspects of juvenile crime. Review and analysis of various explanations of delinquent behavior; survey and critique of the juvenile justice system; examination of selected agencies such as police, probation departments, juvenile courts, juvenile halls, state institutions, and private youth-service agencies.

ADMJ 350 INTRODUCTION TO CORRECTIONS.

(Also SOCI 350)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Philosophy and history of correctional services. Survey of correctional institutions, probation concepts, parole operations, and community corrections. Correctional employee responsibilities, rehabilitation goals as they affect individual and inmate groups in both confined and field settings. Societal

response to the structure of corrections, the effectiveness of corrections, and its impact on the society at large.

ADMJ 360 INTRODUCTION TO CRIMINOLOGY. (Also SOCI 360)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The study of deviant behavior as it relates to the definition of crime; crime statistics; theories of crime causation; crime typologies. Introduction to the impact of crime, limits of the criminal law, juvenile delinquency, and society's reactions to criminal behavior.

ADMJ 370 INTRODUCTION TO COUNSELING.

(Also PSYC 370)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to various theories of counseling and general principles of interviewing. Opportunity for the development of skills in establishing rapport, setting counseling goals, recognizing strengths in individuals, recognizing self-limitations, making referrals, and terminating counseling relationships.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ANATOMY**ANAT 250 ANATOMY.**

Units 4
 Class Hours 3 lecture, 3 lab hours/week
 Prerequisites: High school Biology with grade B or better or equivalent.

Description: Structure of the human body as demonstrated through laboratory study and dissection of the human cadaver. Intended for students in nursing, physiotherapy, hygiene and physical education. Elective for pre-dental, premedical and pre-veterinarian students. Appropriate refresher for Allied Health personnel.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ANTHROPOLOGY**ANTH 105 PEOPLES AND CULTURES OF THE WORLD.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A study of the Eskimo, Bushman of Africa, Mountain People of New Guinea, Pygmy, Yanomamo of Brazil, Peoples of Micronesia, and peoples of other cultures of the non-industrialized world.

ANTH 110 CULTURAL ANTHROPOLOGY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A study of human behavior expressed in different cultures throughout the world. Emphasis on methods and theories of anthropology. Religion, economics, personality, kinship, and family of different cultures.

ANTH 125 PHYSICAL ANTHROPOLOGY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey of the history of life on earth and the evolution of different lifeforms. Topics included are: differences and similarities between humans and apes; fossils of and behavior of human ancestors; biological similarities and differences between men and women and sociobiology.

ANTH 360 INDIANS OF NORTH AMERICA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of life-ways of North American Indian cultures in different geographical areas of North America. Stress on cross cultural comparisons of cultural and social phenomena including religious and world view systems, subsistence systems and political systems. (Fulfills Ethnic Studies requirement.)

ANTH 370 PRE-COLUMBIAN PEOPLES AND CULTURES OF MEXICO AND CENTRAL AMERICA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of Middle American civilization as developed through cultures such as Olmec, Zapotec, Mixtec, Maya, Toltec, and Aztec. Emphasis on contributions of these peoples in the development of Middle America. Examination of the impact of the Spanish conquest, the emergence of the mestizo, and the cultural influences still present. (Fulfills Ethnic Studies requirement.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ARCHITECTURE

ARCH 110 BASIC ARCHITECTURAL DRAWING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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 instrument drawing.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ART

ART 101 HISTORY OF ART I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey of the development of art in the prehistoric, ancient, classic, and medieval periods. Emphasis placed upon the structure of art and its use in society.

ART 102 HISTORY OF ART II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of art from the late Middle Ages through

the 18th century. Emphasis placed upon Renaissance values as they relate to architecture, sculpture, and painting.

ART 103 HISTORY OF ART III.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of Western art as developed in the 19th and 20th Centuries. Emphasis placed upon the influences of world art on contemporary art and architecture.

ART 110 INTRODUCTION TO ART.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

ART 120 MEXICAN ART AND ARCHITECTURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An introduction to the art, architecture, and cultures of Mexico from approximately 2000 B.C. up to and including the 20th Century. This course satisfies the Ethnic Studies requirement.

ART 190 FINE ARTS FOR CHILDREN.

(Also MUS. 190)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of methods and materials useful in teaching young children an understanding of art and music. Fosters self-expression in children. Experiences relate to the development of concepts in color, creation of paint media, line drawing and form appreciation.

ART 201 FORM AND COMPOSITION I.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: None
 Description: Fundamentals of representational composition with emphasis on the individual and combined use of line, mass, shape, color (value only), and space organization. Course will include both drawing and painting projects.

ART 202 FORM AND COMPOSITION II.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 201
 Description: An intermediate course in composition emphasizing the creative use of subject matter and the development of compositional versatility. Diverse media will be used.

ART 204 DRAWING I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

ART 205 DRAWING II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 204
 Description: Continued development of visual perception and technique, emphasizing direct response to visual stimuli and personal interpretation of subject matter. Mixed media.

ART 207 LIFE DRAWING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 205
 Description: Study of the human figure through the application of various drawing concepts. Perceptual sensitivity and compositional exploitation of the subject will be emphasized. May be repeated three times for credit.

ART 214 COLOR.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Consideration of color, theory, and practice. Relationship of color and form as applied to contemporary painting and design.

ART 221 PAINTING I.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 201, 204
 Description: A structured course in painting with projects emphasizing continuity of student experience, orderly approach, and increased sophistication as regards means and mode of expression. Field trips may be required. May be repeated three times for credit.

ART 222 PAINTING II.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 221
 Description: Development of awareness to optical potential of the painted surface. Acrylics, oil paint or other media will be employed to encourage individual expression. Field trips may be required. May be repeated three times for credit.

ART 231 WATER COLOR I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 201, ART 204
 Description: Study of transparent and opaque watercolor technique applied to landscape, figure, and still life. Both basic and experimental techniques will be emphasized. Field trips may be required. May be repeated three times for credit.

ART 232 WATER COLOR II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 231
 Description: Advanced study of transparent and opaque watercolor techniques applied to landscape, figure and still life. Both basic and experimental techniques will be emphasized. Field trips may be required. May be repeated three times for credit.

ART 234 PRINTMAKING I.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 204, 305
 Description: Introduction to printmaking, involving processes of relief printing and intaglio. May be repeated three times for credit.

ART 235 PRINTMAKING II.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 234
 Description: The student will choose from the types of printing listed in ART 234 for concentrated work. May be repeated three times for credit.

ART 241 SILKSCREEN I.

Units (Grade Option) 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: ART 235
 Description: Introduction to stencil process of printing through a silk screen to produce graphic art on paper and fabric. May be repeated three times for credit.

ART 301 DESIGN.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Fundamentals of non-objective two-dimensional organization through the use of concept (idea) as the point of departure. The separate and combined use of line, shape, color, texture, and space organization will be exploited in the course projects.

ART 303 COLOR DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 214 or ART 301.
 Description: For the student who wishes to deal with the basic concepts of color and/or design beyond the primary level in a series of personalized projects. May replace ART 222 for students emphasizing applied design. May be repeated three times for credit.

ART 305 THREE DIMENSIONAL SCULPTURAL DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introductory course in three-dimensional design and materials. Principles of design introduced through a series of projects related to spatial elements; practical skills in the use of hand, power, and welding tools. Project materials include: clay, wax, wood, plastics, metal, and cement. The course should be of special interest to students of engineering, architecture, interior design, landscape design, product design, and the various related crafts.

ART 311 LETTERING AND LAYOUT I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Development of proficiency in freehand and mechanical lettering with pen and brush. Traditional and imaginative interpretations of lettering styles.

ART 312 LETTERING AND LAYOUT II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 311
 Description: 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.

ART 320 PERSPECTIVE.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

ART 322 ILLUSTRATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 201
 Description: 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.

ART 324 LANDSCAPE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Developmental 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 three times for credit.

ART 326 PORTRAITURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ART 201 or ART 204.
 Description: 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. May be repeated three times for credit.

ART 351 BASIC BLACK AND WHITE PHOTOGRAPHY.

Units 3
 Class Hours 2 lecture/2 lab hours/week
 Prerequisites: Intro. to 35mm photography or equivalent.

Description: An introductory course in black and white photography. Ownership of a 35mm camera and basic understanding of its controls are a prerequisite. Students will learn to develop and print their own black and white film. Students must supply their own 35mm camera, film, and paper.

ART 356 INTRODUCTION TO 35mm PHOTOGRAPHY.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An introductory course in the use and handling of 35mm cameras and their related accessories. The course will present a thorough analysis of the operation of 35mm cameras, including f/stops, shutter speeds, interchangeable lenses, films available, and accessories for better photographs. Although no previous knowledge of cameras is necessary, students will need to have access to a 35mm adjustable camera to complete the required assignments.

ART 357 INTRODUCTION TO COLOR PHOTOGRAPHY.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: ART 356
 Description: The course investigates the ingredient COLOR in its relationship to both photographic visualization and composition, exploring how color photographic materials "work" and how they translate reality into a final image. Students will need to have access to a 35mm adjustable camera to complete the required assignments.

ART 359 INTRODUCTION TO PHOTOGRAPHIC COMPOSITION.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: ART 356
 Description: Photographic composition will be studied to give photographers an understanding of the basic principles of design and visualization as they pertain to the field of photography. Both established masters in the medium and work submitted by students will be analysed. Students will need to have access to a 35mm adjustable camera and possess understanding of camera operations to complete class assignments.

ART 405, 406 SCULPTURE I, II.

Units (Grade Option) 3 each
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: None
 Description: Basic course in figurative and non-objective structural forms using plastic, fiberglass, metal and other media. Each may be repeated three times for credit.

ART 411 CERAMICS I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Designed to give the student the techniques of working on the potter's wheel, as well as hand building, pinch and 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.

ART 424 FIBER ARTS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Exploration of various techniques and design possibilities of textile arts using hand-made looms. May be repeated once for credit.

ART 800 SURVEY OF PHOTOGRAPHY.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ASTRONOMY

ASTR 100 INTRODUCTION TO ASTRONOMY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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 the end of the universe will also be discussed.

ASTR 110 THEORIES OF THE UNIVERSE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A historical survey of man's thinking about the large-scale questions concerning the universe, from ancient myth to modern theories of an exploding universe. Topics: 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.

ASTR 120 PLANETS AND EXTRA-TERRESTRIAL LIFE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A scientific study of the possibility that life has formed elsewhere in the universe. Topics: A survey of the planets; the search for other solar systems; the estimate of the number of intelligent civilizations in our galaxy; methods of space travel and interstellar communications; past, present and planned experiments to search for extra-terrestrial life. No mathematics is required.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

BIOLOGY**BIOL 100 INTRODUCTION TO THE LIFE SCIENCES.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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 the role of humans in the world of living things.

BIOL 110 PRINCIPLES OF BIOLOGY.

Units 4
 Class Hours 3 lecture, 3 lab hours/week
 Prerequisites: None
 Description: Biological principles including cellular organization, heredity, molecular components, evolution, reproduction, differentiation, and ecology.

BIOL 111 NATURE STUDY.

Units 3
 Class Hours 2 lecture, one 3-hour lab/field trip/week
 Prerequisites: None
 Description: Study of common plants and animals of the Bay Area. Emphasis on identification of common organisms and study of their natural history and distribution in this area.

BIOL 130 HUMAN BIOLOGY.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of biological principles utilizing the human body as a model. Emphasis on major body systems of the human as well as topics of heredity and human development.

BIOL 160 HUMAN GENETICS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to the principles of heredity in plants and animals with specific reference to human inheritance, biochemical genetics, evolution and recombinant DNA.

BIOL 310 NUTRITION. (Also H.EC 310)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of scientific principles of nutrition and interrelationships of metabolism; normal nutritional requirements through life cycle; consideration of health hazards of nutritional imbalance; emphasis on nutritional content of foods; evaluating diets and advertising; learning to use scientifically recognized nutrition references and consumer information.

BIOL 312 NUTRITION IN HEALTH AND DISEASE. (Also H.EC 312)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: BIOL 310 or H.EC 310
 Description: Discussions of metabolic disorders of human body systems that require dietary modifications to compensate. Covers medical and dietary problems of the circulatory system, bony skeleton, endocrine system, excretory system, reproductive system, cancer, inborn errors of metabolism and natural food toxins. Emphasis on medical terminology.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

BOTANY**BOTY 112 NATIVE PLANTS AND WILDFLOWERS.**

Units (Grade Option) 3
 Class Hours 2 lecture, 3 lab hours/week
 Prerequisites: None
 Description: 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.

BOTY 145 PLANTS AND MAN.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to plant science including cells, plant groups, propagation, distribution, succession, structure, and function.

BOTY 220 GENERAL BOTANY.

Units 5
 Class Hours 3 lecture, 6 lab hours/week
 Prerequisites: High school Biology with a grade of B or better or equivalent.
 Description: Principles of Biology as illustrated by plants with emphasis on structure, physiology and reproduction in green plants. Field trips may be required. Offered each Spring semester of odd numbered years.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

BUSINESS/OFFICE SKILLS**BUS. 100 SURVEY OF BUSINESS.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introductory survey of the nature, organization, and structure of the American enterprise system. Major activi-

ties examined include management, marketing, and financing of business.

BUS. 101 HUMAN RELATIONS IN BUSINESS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The basic psychological principles operating in family, social and business relationships. Topics include: perception, self-image, self-management, prejudice, creativity and resistance to change. Recommended for all business majors.

BUS. 103 INTRODUCTION TO BUSINESS COMPUTER SYSTEMS.

Units 3
 Class Hours 3 lecture, 2 lab hours/week
 Prerequisites: None
 Description: An introductory course including a discussion of all components of a computer-based system. An overview of hardware, software, flow-charting and programming (using BASIC) concepts is introduced. Microcomputer applications to business include: spreadsheets, word processing, data base management, and DOS. Course is designed to meet the requirements of the business transfer major.

BUS. 110 BUSINESS ARITHMETIC.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: Achieve a score of at least 20 on Test #1 of the General Math. Placement Test.

Description: Objectives are to improve arithmetic skills in basic addition, subtraction, multiplication, division, fractions, decimals, and to apply skills to cash and trade discounts, and other business problems. Individualized method of instruction is used with a programmed text. Open entry/open exit.

BUS. 115 BUSINESS MATHEMATICS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: BUS. 110 with C or better or 35% minimum on pretest.

Description: Study of business mathematics with emphasis on calculations involving taxes, discounts, negotiable instruments, periodic payments, compensation methods, inventory pricing, depreciation, and present value. Individualized method of instruction is used with a programmed text. Open entry/open exit.

BUS. 131 MONEY MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Develops understanding and skill in dealing with consumer financial problems. Topics include financial planning, saving and borrowing money, real estate and security investments, estate planning, and income tax preparation. A comparative investment project is offered. Computer application programs for money management are demonstrated in class and are available for student practice.

BUS. 150 SMALL BUSINESS MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: BUS. 100 or previous business experience.
 Description: Examination of the opportunities and hazards of small business operation; designed for business students who plan to establish or supervise a small business. Course covers how to start and manage a small business.

BUS. 180 MARKETING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A broad study of marketing principles and methods applicable to the development, manufacture, pricing and promotion of consumer goods in business and non-business situations.

BUS. 201 BUSINESS LAW.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to the law applicable to business institutions and their operations; social forces and their effect upon the development of law, sources of law, agencies for enforcement and court procedure. California law applicable to contracts and agency relationships.

BUS. 235 TECHNIQUES OF SUPERVISION. (ALSO MGMT 235)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Designed to improve the student's skill in working with people. Analysis of the objectives and characteristics of good management. Group dynamics and small group behavior. Leadership and creativity in supervision. How to establish and maintain effective communications in the workplace.

BUS. 400 BUSINESS ENGLISH.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Fundamental English preparation for all students; development of language arts skills through the study of basic sentence structure, grammar, punctuation, capitalization, word usage, and editing.

BUS. 401 BUSINESS COMMUNICATIONS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: Completion of or enrollment in BUS. 400 or completion of English 801 or 802.
 Description: Designed to help students become more proficient in written and oral communication and business reports.

BUS. 402 WORD PROCESSING: MACHINE TRANSCRIPTION.

Units 3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: BUS. 415 or 40 wpm required; BUS. 400.

Description: To develop skill in effective transcription of machine-dictated documents; efficient use of reference materials; familiarization with general business terminology; and proficiency in correct use of language skills that include punctuation, spelling, proofreading, and grammar while transcribing.

BUS. 403 WORD PROCESSING: LETTER FORMATS.

Units (Grade Option) 1-3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: BUS. 415 or 40 wpm required.
 Description: Use of the microcomputer and word processing software or the IBM Selectric typewriter to produce business letters in a variety of formats. Students will learn to keyboard, store, revise, and print letters, memos, and envelopes. Speed and accuracy drills are included to prepare students for employment-type tests. Open entry/open exit.

BUS. 404 WORD PROCESSING: REPORT FORMATS.

Units (Grade Option) 1-3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 415 or 40 wpm required.
 Description: Use of the microcomputer and word processing software or the IBM Selectric typewriter to produce reports in a variety of formats. Students will learn to keyboard, store, revise, and print reports. Speed and accuracy drills are included to prepare students for employment-type tests.

BUS. 405 WORD PROCESSING: SKILL BUILDING.

Units (Credit/No Credit) 1-3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: None
 Description: Designed to improve your ability to type straight copy with correct technique, to develop accuracy, and to increase speed.

BUS. 406 CONCEPTS FOR THE ELECTRONIC OFFICE.

Units (Grade Option) 3
 Class Hours (8 weeks) 3 lecture hours/week

Prerequisites: None
 Description: Historical and current developments in word/information processing with emphasis on concepts, procedures, and systems used in office automation. Office automation career paths, document production with office automation equipment, and electronic data transmission are also covered.

BUS. 407 BASIC WORD PROCESSING: WANG.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration hours/
 3 lab hrs/week

Prerequisites: Passed equivalent of BUS. 400
 type 40 wpm.

Description: A "hands-on" introduction to the WANG word processing system, including formatting, inputting, editing, filing, retrieving, and printing business documents. May be repeated once for credit.

BUS. 408 INTERMEDIATE WORD PROCESSING: WANG.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration hours/
 3 lab hours/week

Prerequisites: BUS. 407
 Description: Intermediate editing, filing, retrieving, SRCH and REPL, merge, global hyphenation and pagination, super copy and super move, creating wide screen documents, headers and footers, automatic page numbering, dual column, tables, and introduction to glossary. May be repeated once for credit.

BUS. 409 ADVANCED WORD PROCESSING: WANG.

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/
 + 6 lab hours/week

Prerequisites: BUS. 408
 Description: Course will include glossary, math, sort, footnotes, reload system, compressed diskette, duplicating diskette, setting up files, and supervisory techniques. May be repeated once for credit.

BUS. 410 OFFICE INTERNSHIP.

Units 1-3
 Class Hours 1.5 lecture/4 lab hours/week

Prerequisites: BUS. 110, 400, 402 or 403;
 BUS. 431 recommended.

Description: Variable unit course designed to provide a realistic training environment in which the student will refine information processing skills and/or office administration skills. Also included are technological (electronic mail, calendaring, etc.) procedures, decision-making, and interpersonal experiences. An open-entry, open-exit course.

BUS. 413 SHORTHAND FOR THE ELECTRONIC OFFICE.

Units 1-3
 Class Hours 3 lecture/1 lab hours/week

Prerequisites: Enrollment in or completion of BUS. 400
 or ENGL 100 or ENGL 801.

Description: An introductory course in Gregg Shorthand for today's modern office with practice in simple dictation and transcription using the IBM-PC with word processing software.

BUS. 414 SHORTHAND ENRICHMENT.

Units 1-3
 Class Hours 3 lecture/1 lab hours/week

Prerequisites: Ability to take dictation at 40 wpm;
 enrollment in or completion of
 BUS. 400, English 100 or English 802.

Description: Review and update of Gregg shorthand principles and practice dictation and transcription.

BUS. 415 INTRODUCTORY KEYBOARDING/TYPEWRITING.

Units (Credit/No credit) 1-3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: None
 Description: Opportunity to develop correct keyboarding/typewriting techniques using the alphabetic and text number keys on the IBM Selectric typewriter and/or the microcomputer. Slide/tape presentations, drills, and computer software are used to develop a minimum speed of 25 wpm with no more than one error per minute on timed writings. Proficient use of the 10-key calculator and/or the 10-key pad of the microcomputer is also taught. A course for persons who do not know how to type or use the computer keyboard.

BUS. 416 OFFICE SKILLS AND PROCEDURES.

Units (Grade Option) 1-3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 415 or minimum of 40 wpm
 is recommended.

Description: To provide students with basic office skills in telephone techniques, filing procedures; the skill of being a receptionist; a review of language skills using the IBM-PC and dictation/transcription equipment; and other procedures used in the automated office. Open entry/open exit.

BUS. 420 INTRODUCTION TO APPLE COMPUTER.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration/1 lab hour/week

Prerequisites: None
 Description: Applications for Apple computers. This will include discussions and demonstrations of current microcomputer software and also introduction to more advanced microcomputer BASIC techniques.

BUS. 421 ADVANCED APPLE COMPUTER.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration hours/
 2 lab hours/week

Prerequisites: BUS. 420
 Description: Advanced applications for microcomputers including business applications. Topics such as word processing, spreadsheets, database management and other software will be discussed and demonstrated.

BUS. 430 INTRODUCTION TO IBM-PC.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/1 lab hour/week

Prerequisites: BUS. 415 or concurrent.
 Description: An introduction to microcomputers for the personal user of the IBM-PC. Students will be introduced to the disk operating system (DOS) for the microcomputer and to business applications software that includes word processing, spreadsheets, graphics, data bases, and telecommunications. Also

included in the course is how to purchase a microcomputer for personal and/or business use. It is strongly recommended that BUS. 415 be taken concurrently with this course, or that the student have the ability to type at least 25 wpm. (This course does not meet certificate and/or degree program requirements.)

BUS. 431 MICROCOMPUTER FUNDAMENTALS.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 415 or concurrent.
Description: An introduction to the microcomputer using the IBM-PC. Students will learn to use the disk operating system (DOS), business applications software that includes word processing, spreadsheets, graphics, data bases, telecommunications, advanced DOS features, PC-hard-disk commands, and batch files. Also included are: how to purchase a microcomputer, an overview of DOS shells and integrators, troubleshooting techniques for the PC, and how to upgrade the PC. (Required for specified certificate programs.)

BUS. 432 MICROCOMPUTER WORD PROCESSING.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.
Keyboard 40 wpm.

Description: Introduction to word processing on a microcomputer using a choice of word processing software (WordStar, IBM DisplayWrite III, or WordPerfect). Students will choose one software package and learn to create files, keyboard text, revise and edit text, store files, paginate text, and print text. Course may be repeated once for credit.

BUS. 434 MICROCOMPUTER SPREADSHEET.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.
Description: An introduction to the use of spreadsheets concepts in solving business-related problems. IBM-PC LOTUS 1-2-3 will be utilized in this basic course. Strongly recommended enrollment in BUS. 415 preceding or concurrent with this course.

BUS. 436 DATA BASE MANAGEMENT.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.
Description: An introduction to data base management techniques for common business applications. dBASE III software will be used on the IBM-PC to develop and report from a data base. Students will design a data base, establish the data entry screens, and produce business reports from the data base. Strongly recommended enrollment in BUS. 415 preceding or concurrent with this course.

BUS. 438 MICROCOMPUTER GRAPHICS.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.
Description: An introduction to the use of graphics on microcomputers, with emphasis on the IBM-PC. Topics covered include hardware, software, and the display of visual information. Software covered will include computer-assisted design, computer-assisted publishing, drawing programs, and standard business graphs.

BUS. 450 OFFICE AUTOMATION MINICOMPUTER ALTERNATIVES.

Units (Grade Option) 3
Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.
Description: An introduction to the use of minicomputers in business with emphasis on the IBM System/36. Topics covered

include hardware, software, system administration, planning and selection of a system. Business applications, including word processing, electronic mail, data management, and the use of IBM-PCs as workstations will be covered.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

CAREER AND PERSONAL DEVELOPMENT

CRER 130 SELF-AWARENESS.

Units 1
Class Hours 16 lecture hours/semester

Prerequisite None
Description: The class is designed to promote personal growth, career awareness, self-exploration, and interaction with others. The process will be facilitated by various assessment instruments, techniques, and lectures.

CRER 131 OCCUPATIONAL PLANNING.

Units 1
Class Hours 16 lecture hours/semester

Prerequisites CRER 130
Description: 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 are explored.

CRER 137 LIFE AND CAREER PLANNING.

Units 3
Class Hours 3 lecture hours/week

Prerequisites None
Description: Personal and career inventories are evaluated. Career options are researched and job search techniques are developed. The course stresses the significance of clearly defined values and the development of strategies and goals for life.

CRER 140 PEER COUNSELING.

Units (Grade Option) 2-3
Class Hours 32-48 lecture hours/semester

Prerequisites None
Description: This unique program is for students interested in developing basic helping/counseling skills through study of human development theory and application of self-assessment techniques. The training enables the student to realize the importance of deepening self-understanding, a sense of integrity, and the capacity to love.

CRER 401 INTRODUCTION TO COLLEGE.

Units 1
Class Hours 16 lecture hours/semester

Prerequisites None
Description: 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 and decision-making.

CRER 410 COLLEGE AWARENESS.

Units (Grade Option) 2
Class Hours 32 lecture hours/semester

Prerequisites None
Description: Although the class is intended for students in special programs (e.g., EXCEL) and emphasizes their special needs, all students are welcome to participate. The class deals more thoroughly with topics in CRER 401.

CRER 650 SPECIAL INTEREST DISCUSSION GROUPS.

Units 0.5-1.5
 Class Hours 8-24 lecture hours/semester
 Prerequisite None
 Description: Any group of students with a common interest may meet under the leadership of a counselor to explore and evaluate personal values, goals, and expectations as they relate to this social and cultural environment.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

CHEMISTRY**CHEM 110 CHEMISTRY AND DAILY LIFE.**

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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, energy and drugs are examined from a chemistry point of view.

CHEM 110 CHEMISTRY AND DAILY LIFE LABORATORY.

Units 1
 Class Hours 3 hours lab/recitation/week
 Prerequisites: Concurrent enrollment in or completion of CHEM 110.

Description: Experimental examination of some materials in our environment; such as the making of soaps, examining of fuels, flammability of materials, food analysis and physical and chemical properties of substances.

CHEM 192 ELEMENTARY CHEMISTRY.

Units (Grade Option) 1-4
 Class Hours 3 lecture, 1 recitation,
 2 lab hours/week

Prerequisites: MATH 110 or one year of high school Algebra. Concurrent enrollment in Geometry or Intermediate Algebra strongly recommended. This course should not be elected by students who need a general survey course.

Description: Introduction to some of the theories, laws, concepts and language of Chemistry. It is specifically designed to prepare students for CHEM 210 with emphasis on problem solving. May be repeated up to 4 units.

CHEM 210, 220 GENERAL CHEMISTRY.

Units 5, 5
 Class Hours 3 lecture, 1 recitation,
 5 lab hours/week

Prerequisites: 210-CHEM 192 with grade of C or better or high school chemistry with grade of B or better, and two years of algebra and one year of geometry. A qualification exam will be given at the first class meeting. 220-CHEM 210 with grade of C or better.

Description: Principles and theory of inorganic chemistry for students majoring in Engineering, Pre-Med, Pre-Dental and other science majors. Topics include: Descriptive chemistry of the elements, ionic equilibria, oxidation-reduction, qualitative analysis, kinetics, thermodynamics, electrochemistry, coordination chemistry, introduction to nuclear chemistry.

CHEM 231 ORGANIC CHEMISTRY I.

Units 5
 Class Hours 3 lecture, 2 recitation,
 4 lab hours/week

Prerequisites: CHEM 220 with grade of C or better.

Description: The basic concepts of carbon chemistry; a study of the structure, nomenclature, and reactions of the important

classes of aliphatic and aromatic compounds. An introduction to IR and NMR spectroscopy is included.

CHEM 232 ORGANIC CHEMISTRY II.

Units 4
 Class Hours 3 lecture, 2 recitation,
 4 lab hours/week

Prerequisites: Chem 231 with grade of C or better.
 Description: More rigorous treatment of mechanisms, reactions, and synthesis. Structure determination by degradation and spectroscopy. Laboratory will be implementation of techniques and skills taught in Chem 231, including identification of unknown compounds and mixtures. Extra supplies may be required.

CHEM 250 QUANTITATIVE ANALYSIS.

Units 4
 Class Hours 2 lecture, 1 recitation,
 5 lab hours/week

Prerequisites: CHEM 220 with grade of C or better.

Description: 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.

CHEM 410 HEALTH SCIENCE CHEMISTRY.

Units 4
 Class Hours 3 lecture, 1 recitation,
 2 lab hours/week

Prerequisites: One year high school algebra.
 Description: 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.

CHEM 420 HEALTH SCIENCE CHEMISTRY.

Units 4
 Class Hours 3 lecture, 1 recitation,
 2 lab hours/week

Prerequisites: CHEM 410 or CHEM 210 with grade of C or better.

Description: Same format as 410, but with organic and biochemistry as subject matter.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

CHINESE**CHIN 801 CONVERSATIONAL CHINESE I.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: 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 supplied.

CHIN 802 CONVERSATIONAL CHINESE II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: CHIN 801

Description: Further reading, speaking and writing modern Mandarin Chinese. Emphasis on the spoken language. Chinese culture background pertinent to the learning of the language will be supplied.

COMPUTER INFORMATION SYSTEMS

The normal sequence of Computer Science courses at Cañada is: 103, 170, 172. COMP 115 should be taken concurrently with 103.

This sequence not only forms the core of the CIS Certificate Program (see page 33 CIS listing under Basic and Applied Sciences), but also provides excellent preparation for transfer students who will continue their computer studies at a four-year institution.

COMP 103 INTRODUCTION TO PROGRAMMING USING PASCAL.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: None
 Description: A gentle introduction to Pascal programming using Karel the Robot. Covers Pascal data types, control structures, and procedures. Problem solving through top-down design and step-wise refinement is stressed. Some instruction in text editing and computer systems is included.

COMP 115 ON-LINE EDITING.

Units 0.5
 Class Hours 1 eight-hour session
 Prerequisites: None
 Description: Use of on-line editing programs, text editing and program development and modification. Strongly recommended for students taking COMP 151, 155, 162, 170, 172, 190. This course is also recommended for students who want to use the on-line editing program for editing reports and/or compositions in non-computer courses.

COMP 151 INTRODUCTION TO COBOL PROGRAMMING.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: MATH 110 with grade of C or better or
 COMP 115 or concurrent enrollment.

Description: Writing and testing COBOL programs. Emphasis on logic or typical business programs and basic language elements. Included also are debugging techniques, use of reference manuals, program documentation standards and structured programming concepts.

COMP 155 BASIC PROGRAMMING.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: MATH 110 with grade of C or better.
 (Some typing skills recommended.)
 COMP 103 and COMP 115 strongly recommended.

Description: Introduction to computer programming using the BASIC language. Topics will include Input/Output, control statements, subroutines and functions, one and two dimensional arrays, string processing, random numbers, sequential files, documentation, and programming style.

COMP 157 APPLICATIONS OF ADVANCED BASIC.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: COMP 155 or equivalent and
 COMP 115 strongly recommended.

Description: A discussion of the advanced features of the BASIC programming language. Theory and examples of multiple line functions; string processing; merging, sorting, and searching; sequential files; and problem-solving using top-down design. Also included will be the discussion of the application of these advanced techniques to personal computers.

COMP 162 FORTRAN PROGRAMMING.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: MATH 130 with grade of C or better,
 or MATH 241 with grade of C or better,
 COMP 155 prerequisite or concurrently.

Description: Introduction to computer programming using the FORTRAN language. Topics will include Input/Output, control statements, subroutines and functions, one and two dimensional arrays, string processing, random numbers, sequential files, documentation, and programming style.

COMP 170 PROGRAMMING IN PASCAL.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: COMP 103, COMP 115 strongly recommended.
 Description: Parallel development of algorithm and data structure design emphasizing the use-defined data types and structures available in PASCAL. Topics include review of top-down design techniques, records and data abstraction, ordinal types and sets, arrays, sequential files, recursion, pointers and dynamic data structures.

COMP 172 ADVANCED PASCAL PROGRAMMING.

Units 4
 Class Hours 4 lecture/4 lab hours/week
 Prerequisites: COMP 170,
 COMP 115 strongly recommended.

Description: Abstract data types (ADT) and user-interfaces with applications to internal and external information organization and retrieval. Topics include: strings, tables, random access files, relational data bases, interpreters and simple query languages. Students will complete a final project integrating ADT and data base techniques.

COMP 190 INTRODUCTION TO C PROGRAMMING.

Units 3
 Class Hours 3 lecture/4 lab hours/week
 Prerequisites: COMP 170 or COMP 162 or
 equivalent experience.

Description: An introduction to the syntax and semantics of the C programming language. C's unique features, pointers, and structures will be stressed. Applications most suitable for C will be covered.

COMP 275 ASSEMBLY LANGUAGE PROGRAMMING.

Units 3
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: Strong knowledge of one programming
 language and COMP 115 prerequisite or concurrently.

Description: Introduction to assembly language programming including input/output, memory reference, and register reference instructions. Address modification, indirect addressing, indexing and sub-routines. Topics also include macro definition and use.

COMP 699 INDEPENDENT COMPUTER LABORATORY

Units 1
 Class Hours 3 lab hours/week
 Prerequisites: Strong knowledge of a computer language,
 or a need to use the text-editor in a non-computer class
 to write reports and/or compositions.
 COMP 115 strongly recommended.

Description: Individualized use of computer facilities for programming and/or on-line text editing. Not a corequisite for any computer class.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

COOPERATIVE EDUCATION

Cooperative Education — Work Experience

Through the Cooperative Education program, students earn college credit by improving their skills, knowledge, or performance on a paying or a volunteer job. Students work with a Co-op Education instructor and their job supervisor to establish measurable learning objectives appropriate to their jobs. Credit is earned when these stated objectives have been successfully accomplished. Students must be enrolled in seven units (including the Cooperative Education course) to earn Cooperative Education credit.

Students may earn one unit of credit for each 75 hours of paid work (approximately 5 hours per week) with a maximum of four units per semester for a total not to exceed 16 units while enrolled in a community college. Students on volunteer jobs with non-profit organizations may earn one unit of credit for each 60 hours of work (approximately 4 hours per week). For further information see your counselor or the Cooperative Education Coordinator in the Career Center, Building 5, Room 208.

For Veterans Only

A veteran may count Co-op Education units towards Veterans educational benefits. The Veterans Administration requires that the veteran's job relate closely to the veteran's major.

COOP 670 OCCUPATIONAL COOPERATIVE EDUCATION.

Units 1-4
Class Hours 4-6 lecture hrs/semester
(on/job—75 to 300 hrs/semester)
Prerequisites Enrollment in 7 units,
including Co-op Ed.

Description: Students' jobs must be related to their occupational goals. Activities include setting measurable learning objectives appropriate for the student's job, supervised work experience, limited classroom meetings, and individual conferences with an instructor. May be repeated for credit.

DEVELOPMENTAL SKILLS

DSKL 810 SPECIFIC LEARNING SKILLS.

Units (Credit Only) 0.5-2
Class Hours 1-3 lab hours/week
Prerequisites: Verifiable learning disability.

Description: Individual and small group activities designed to assist students with identified learning disabilities in the following skill areas; basic skills; memory/ organization/ concentration skills; perceptual skills (auditory/visual); language skills (receptive and expressive); conceptual skills.

DSKL 811 SPECIFIC LEARNING ASSESSMENT.

Units 1
Class Hours 16 lecture, 6-8 lab hours/week
Prerequisites: Verifiable learning disability.

Description: An assessment battery is used to determine specific learning styles as well as academic skill levels in reading, writing, math, and spelling. Based upon assessment, the student with the assistance of the instructor, will design and use individual learning strategies.

DSKL 813 DEVELOPMENTAL READING AND THINKING.

Units (Credit/No-credit) 0.5-2
Class Hours 1.5 lecture, 1.5 lab hours/week
Prerequisites: Verifiable learning disability.
Description: Small group classroom instruction designed to assist learners with identified learning disabilities in the development/ improvement of receptive written language and field independent thinking skills. (May be repeated up to a total of 9 units.)

DSKL 814 DEVELOPMENTAL SPELLING AND WRITING.

Units (Credit/No-credit) 0.5-2
Class Hours 1.5 lecture, 1.5 lab hours/week
Prerequisites: Verifiable learning disability.
Description: Small group and classroom activities designed to assist students with identified learning disabilities in spelling and writing skills. (May be repeated up to a total of 9 units)

DSKL 816 TUTORING.

Units (Credit/No-credit) 0.5-2
Class Hours 4 lab hours/week
Prerequisites: Dskl 811; Verifiable learning disability.
Description: This course is designed to assist students with identified learning disabilities to achieve success in mainstream classes through instructional techniques which are appropriate to the student's specific needs identified through assessment.

DRAMA

DRAM 101 HISTORY OF THEATRE I.

Units (Grade Option) 3
Class Hours 3 lecture hours/week
Prerequisites None
Description: The Classical period to the 18th century. Plays, physical theatres, staging, directing and their relationship to existent cultural forces. Use of audio-visual resources and required play attendance.

DRAM 102 HISTORY OF THEATRE II.

Units (Grade Option) 3
Class Hours 3 lecture hours/week
Prerequisites None
Description: The 18th century to the present. Development and changes in dramatic styles and structure. The 19th century, Ibsen, Chekhov, new stage craft, Brechtian style, theatre of the absurd and living theatre. Use of audio-visual resources and required play attendance.

DRAM 106 READER'S THEATRE.

Units (Grade Option) 3
Class Hours 3 lecture hours/week
Prerequisites: None
Description: Oral presentation of literature both dramatic and non-dramatic. Presentations are given with a minimal use of line memorization and properties. The class will consist of lectures, presentations, and discussion of interpretations. Outside reading and rehearsal are required.

DRAM 140 INTRODUCTION TO THE THEATRE.

Units (Grade Option) 3
Class Hours 3 lecture hours/week
Prerequisites: None
Description: Nomenclatures, duties, and responsibilities of the various theatre artists, traditions, script analysis, approach to a script from the director's viewpoint, the designer's viewpoint. Publicity, performance, music and dance, motion pictures, and T.V.

DRAM 142 GREAT PLAYS: CLASSICAL AND RENAISSANCE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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, measuring the student's own beliefs and values against those of characters of other times and places. Play attendance may be required.

DRAM 143 GREAT PLAYS: MODERN ERA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of the great plays and playwrights from the 17th Century to the present. See description of Drama 142.

DRAM 144 HISTORY AND DEVELOPMENT OF THE AMERICAN MUSICAL. (Also LIT. 144)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Students study the development of the American musical theater from its European roots through vaudeville, revues, etc., to the modern concept musical. The class explores how musical theater of the period reflects the social and cultural trends in American society. The structural components of musical theater, as well as significant contributions to this unique American theatrical form, will be a major part of the class.

DRAM 151 INTRODUCTION TO SHAKESPEARE I. (Also LIT. 151)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100
 Description: Study of representative plays of Shakespeare. A chronological sequence of plays, from each of the phases of Shakespeare's creativity, will be covered. Some discussion of Shakespeare's life and times and some discussion of his poetry will be included, although the plays are the main focus of the course.

DRAM 152 INTRODUCTION TO SHAKESPEARE II. (Also LIT. 152)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100
 Description: Study of selected plays of Shakespeare. Some discussion of Shakespeare's life and time and some discussion of his poetry will be included, although his plays are the main focus of the course. Plays covered are different than those in Drama 151 and are not selected on a chronological basis.

DRAM 200 THEORY AND PRACTICE OF ACTING.

Units (Grade Option) 3
 Class Hours 4 lecture hours/week
 Prerequisites: Concurrent enrollment in DRAM 208.
 Description: Theories and techniques of acting and dramatic production; presentation of scenes, including scenes performed for video-tape study; improvisation and pantomime; critical evaluation of scenes and plays.

DRAM 201, 202, 203 ADVANCED ACTING.

Units (Grade Option) 3
 Class Hours 4 lecture hours/week
 Prerequisites: DRAM 200 and concurrent enrollment in DRAM 209, 210, 211.

Description: Advanced, enriched, and more complex work in the areas covered by DRAM 200.

DRAM 208, 209, 210, 211 (ACTING LABORATORIES).

Units (Grade Option) 2
 Class Hours 6 lab hours/week
 Prerequisites: None
 Description: 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. Emphasis upon coaching by the instructor and the students preparing of scenes for performance. May be repeated once for credit.

DRAM 220 ACTING FOR THE CAMERA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Through constant work before the camera, students are introduced to the field of film and TV acting. Students will work on the techniques necessary for commercials, interviews, demonstrations, scenes, monologues, etc.

DRAM 230 MIME AND MOVEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The development of expressive body movement for the actor and dancer. Emphasis will be placed on the creation of original mimes to poetry, music, and other art forms, training in coordination, posture, balance, gesture, and stage techniques.

DRAM 233 TUESDAY THEATRE COMPANY.

Units (Grade Option) 3
 Class Hours 2 lecture/2 lab hours/week
 Prerequisites: Concurrent enrollment in DRAM 200, 201, 202, or 203, and Audition.

Description: Students will work on developing the art and craft of acting before an audience and on providing that audience with an interesting, entertaining, and fully rehearsed performance. This course bridges the gap between scene work and the intensive and extensive work of a major production.

DRAM 248 MAKE-UP.

Units (Grade Option) 2
 Class Hours 2 lecture hours/week
 Prerequisites: Concurrent enrollment in DRAM 305.
 Description: Introduction to basic techniques of theatrical make-up. Development of skills in practical application.

DRAM 261, 262 DRAMA TECHNOLOGY I, II.

Units (Grade Option) 3
 Class Hours 2 lecture & 3 lab hours/week
 Prerequisites: None
 Description: Theory and practice relating to the design and execution of lighting and sound for theatrical presentations. Study of various types of lighting and sound equipment and accessories. Elements of electricity, qualities of light and sound and their control.

DRAM 263, 264 DRAMA TECHNOLOGY III, IV.

Units (Grade Option) 3
 Class Hours 3 lecture & 3 lab hours/week
 Prerequisites: DRAM 261 and 262 or their equivalent.
 Description: Lectures and special projects in stage managing, technical work, and design.

DRAM 300 PLAY PRODUCTION.

Units (Grade Option) 0.5-3
 Class Hours By arrangement
 Prerequisite: Audition.
 Description: Problems of actual play production, acting. Play rehearsal of seven weeks for each of three major productions per semester. Rehearsals are held from 7-10 p.m., Monday through Friday. May be repeated for up to 18 units.

DRAM 305 TECHNICAL PRODUCTION.

Units (Grade Option) 0.5-3
 Class Hours By arrangement
 Prerequisites: None
 Description: Problems of actual play production. Set building, painting, lighting, sound, properties, rigging, and stage crew operations; costume and make-up. Students may work on one to three plays per semester. May be repeated for up to 18 units.

DRAM 338 COSTUME WORKSHOP.

Units (Grade Option) 3
 Class Hours 2 lecture hours/week
 plus 3 lab hours/week by arrangement.
 Prerequisites: Concurrent enrollment in DRAM 305.
 Description: 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 three times for credit.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

EARLY CHILDHOOD EDUCATION**ECE. 210 EARLY CHILDHOOD EDUCATION PRINCIPLES.**

(Also PSYC 210)
 Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Overview of the nature and goals of Early Childhood Education. Awareness of historical perspective. Exploration of various program models in ECE and potential future trends. Qualifications and training of teachers of young children. Issues in ECE and potential future trends.

ECE. 211 EARLY CHILDHOOD EDUCATION CURRICULUM.

(Also PSYC 211)
 Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Development of goals and objectives leading to the selection and management of activities for young children. Foster skills in providing quality learning experiences. Appreciation of the value of children's play. Development of appropriate curriculum evaluation methods.

ECE. 212 CHILD, FAMILY, AND COMMUNITY.

(Also PSYC 212)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Nature of varying and interacting factors of socialization. Focus is on middle childhood. Examination of contemporary family life styles and patterns of childrearing. Resources and community agencies available to children and families. Examination of contemporary factors influencing communities.

ECE. 230 CREATIVE ACTIVITIES FOR THE YOUNG CHILD.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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 activities, science and games both indoors and outdoors.

ECE. 240 EARLY CHILDHOOD EDUCATION ADMINISTRATION I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: 12 units of ECE suggested.
 Description: Overview of the business aspects of caring for children. Topics include: Legal requirements for child care settings; laws relating to Early Childhood Education; facets of business and fiscal management.

ECE. 241 EARLY CHILDHOOD EDUCATION ADMINISTRATION II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Focus on the human relations aspects of child care. Major topics include: Staffing and supervision; parent involvement; issues in ECE.

ECE. 243 MICROCOMPUTERS IN EARLY CHILDHOOD EDUCATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Exploration of computer software specifically designed for curriculum with young children. Authoring systems and languages (particularly emphasis on LOGO) included. Course neither requires nor assumes any prior computer knowledge. Emphasis on creative problem solving.

ECE. 245 TEACHING AND MANAGEMENT INTERNSHIP I.

Units (Grade Option) 3-10
 Class Hours TBA
 Prerequisites: ECE certificate or 14 units of ECE and demonstrated ability.
 Description: Designed for the experienced student in cooperation with the Bing School at Stanford University. Teaching Practicum includes: team teaching; program planning; developmental curriculum; observational skills in Child Development. Management Seminar includes: program planning; implementation and monitoring organizational structure; non-profit incorporation; resource management/personnel management.

ECE. 246 TEACHING AND MANAGEMENT INTERNSHIP II.

Units (Grade Option) 3-10
 Class Hours TBA
 Prerequisites: ECE certificate or 14 units of ECE and demonstrated ability.
 Description: Designed for the experienced student in cooperation with the Bing School at Stanford University. Teaching Practicum includes: team teaching; program planning (including the Special Child); curriculum evaluation; advanced observational skills in Child Development. Management Seminar includes: resource management; fiscal and budgetary administration; facility and equipment management; parent involvement; special topics in management.

ECE. 311 NUTRITION FOR YOUNG CHILDREN.

Units (Grade Option) 1
 Class Hours (8 weeks) 2 lecture hours/week

Prerequisites: None
 Description: This course stresses the understanding of nutritional requirements for the young child and the effects of inadequate nutrition on growth and development. Guides for parents and teachers concerning nutritious snacks and meals.

ECE. 313 HEALTH AND SAFETY FOR YOUNG CHILDREN.

Units (Grade Option) 1
 Class Hours (8 weeks) 2 lecture hours/week

Prerequisites: None
 Description: Safety regulations will be reviewed for those planning to work in a setting caring for children. Guides to parents and teachers concerning the prevention of accidents. Equipment purchasing information and curriculum ideas for teaching safety to your children will be included.

ECE. 681 CURRENT ISSUES.

Units (Grade Option) 1-4
 Class Hours By Arrangement

Prerequisites: None
 Description: Selected current issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will meet standards of academic rigor required of all TRANSFER level courses, including outside reading and preparation, and strict evaluation. Courses focusing on single issues pertinent to the discipline. May be repeated for credit.

ECE. 682 TRAVEL-STUDY COURSES.

Units (Grade Option) 1-5
 Class Hours By Arrangement

Prerequisites: None
 Description: Selected travel-study issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will meet standards of academic rigor required of all TRANSFER level courses, including outside reading and preparation, and strict evaluation. Courses incorporating a travel-study format. May be repeated for credit.

ECE. 881 CURRENT ISSUES.

Units (Grade Option) 1-4
 Class Hours By Arrangement

Prerequisites: None
 Description: Selected current issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will parallel standards and requirements of other NON-TRANSFER level courses. Courses focusing on single issues pertinent to the discipline. May be repeated for credit.

ECE. 882 TRAVEL-STUDY COURSES.

Units (Grade Option) 1-5
 Class Hours By Arrangement

Prerequisites: None

Description: Selected travel-study issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will parallel standards and requirements of other NON-TRANSFER level courses. Courses incorporating a travel-study format. May be repeated for credit.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ECONOMICS**ECON 100 PRINCIPLES OF MACRO ECONOMICS.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None
 Description: The American economy; the price system; resources, machines and labor in production; firms and organizing private business; the banking system; money and economic activity; trends of national income and factors in determination; policies for stabilization and growth.

ECON 102 PRINCIPLES OF MICRO ECONOMICS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None
 Description: Supply, demand and price determination in a market economy; the business firm's cost, revenues and price policies under competition and monopoly; determination of wages, rent, interest and profits; international trade and finance; taxes, debts and public finance; comparative economic systems.

ECON 230 ECONOMIC HISTORY OF THE UNITED STATES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None
 Description: Origin and development of the American economy. Industrial growth, land, and resource use, the transportation revolution, development of money and banking, trade patterns, organized labor, the role of government in aiding economic development and stabilization. (This course fulfills American Institutions requirement.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ENGINEERING**ENGR 100 THE ENGINEERING PROFESSION.**

Units 2
 Class Hours 2 lecture/1 lab hour/week

Prerequisites: None
 Description: Definition of engineering as a profession, its ethics and its scholarship. Description of its branches and functions with their historical development. Study of current and future role of engineers in legal, political, social, and ecological aspects of the national and world communities. Course directed to both technical and non-technological majors.

ENGR 200 DESCRIPTIVE GEOMETRY.

Units 2
 Class Hours 2 lecture/4 lab hours/week
 Prerequisites: MATH 130
 Description: Lectures and drafting room work orthographically solving engineering problems in three-dimensional space. Introduction to graphic statics, vector properties, space-force polygons.

ENGR 220 ENGINEERING GRAPHICS.

Units 2
 Class Hours 2 lecture/4 lab hours/week
 Prerequisites: MATH 251 or 241
 Description: Numerical and graphical calculus. Design projects and introduction to the use of computers in engineering design.

ENGR 230 STATICS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 251 or 241
 Description: Plane and space force systems; equilibrium problems covering structures, machines, distributed force systems, friction, moments of inertia and virtual work.

ENGR 260 CIRCUITS AND DEVICES.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 252 or 242, PHYS 260 recommended.

Description: Introduction to electrical and electronic circuits and devices. Network theory and instruments.

ENGR 260L CIRCUITS AND DEVICES LABORATORY.

Units 1
 Class Hours 3 lab hours/week
 Prerequisites: To be taken concurrently with ENGR 260.

Description: DC and AC network circuit theory. Cathode-ray oscilloscope theory and use. Non-linear device measurements, transistors and integrated circuits.

ENGR 270 MATERIALS SCIENCE.

Units 3
 Class Hours 2 lecture/3 lab hours/week
 Prerequisites: MATH 251 or concurrently and PHYS 250

Description: Application of basic principles of chemistry and physics to the engineering properties of materials. Special emphasis devoted to relationship between microstructure and the properties of metals, polymers, ceramics and semiconducting materials.

*A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.*

ENGLISH

In the San Mateo County Community College District, assessment of basic language skills is expected of all entering full-time students, part-time students who plan to take English, and those continuing part-time students who have completed 12 units at Cañada, College of San Mateo, or Skyline.

The test battery consists of the Nelson-Denny Reading Test, which measures vocabulary and comprehension, and the objective Test of Standard Written English. Scores are translated into an initial placement in English (and reading and writing, if necessary).

Only those students who present evidence of one of the following are exempt from taking the English Placement Test:

1. A score of 150 or above on the CSU English Placement Test.
2. Scores of 3, 4, or 5 on either the Language and Composition or the Composition and Literature tests of the College Board Advanced Placement Program.
3. A score of 600 or above on the College Board Achievement Test in English' Composition with Essay.
4. A score of 500 or above on the verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal) and 50 or above on the TSWE.
5. A score of 21 or above on the ACT English Usage Test.
6. An acceptable 3-semester-unit or 4-quarter-unit college English course with a grade of C or better.

Normal exemption by means of #1-5 allows a student to enroll in English 100.

NOTE: During the first two weeks of class, a student's initial placement will be subject to confirmation by means of a writing sample.

ENGL 100 READING AND COMPOSITION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: .. ENGL 100 recommendation via the placement test or satisfactory completion of ENGL 800.

Description: Intensive reading and writing based on a study of primarily non-fiction materials; writing will emphasize the expository and the argumentative forms.

ENGL 110 COMPOSITION AND LITERATURE.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100

Description: Study of at least three literary types: short story, drama, poetry, or novel, with extensive critical writing. Essays will be based on reading and class analysis.

ENGL 161 CREATIVE WRITING I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: The craft of writing fiction. Designed to help beginning writers to find a way to begin and to encourage journeyman writers to continue. Emphasis falls upon writing technique and critical ability.

ENGL 162 CREATIVE WRITING II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: The craft of writing poetry. Designed to help beginning writers to find a way to begin and to encourage journeyman writers to continue. Emphasis falls upon writing technique and critical ability.

ENGL 165 ADVANCED COMPOSITION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100

Description: The logic and rhetoric of composition will be examined and practiced in this course. Modes, methods, and kinds of reasoning will be studied; compositions will be directed by formal, logical practices. The course will review formal and informal fallacies, voice, tone, and distance. Formal argument will be studied and practiced.

ENGL 181 TECHNICAL REPORT WRITING.

Units 3
 Class Hours 3 lecture hours/week

Prerequisites: ENGL 100 or equivalent.

Description: Designed to help the student become skilled in the basic techniques of report writing. Students will write papers about their technical areas or interests. Basic principles for achieving successful written communication—both formal and informal—are set forth.

ENGL 800 WRITING DEVELOPMENT.

Units 3
 Class Hours 3 lecture hours/week

Prerequisites: Recommendation of English Placement Test or satisfactory completion of ENGL 801.

Description: Intensive review of basic skills necessary for college level composition. Practice in writing to develop and refine specific, overall composition skills. Development of specific reading skills to reinforce the process of writing expository essays. Designed mainly to prepare students to meet competency standards required for entrance into ENGL 100.

ENGL 801 BASIC WRITING SKILLS.

Units 3-4
 Class Hours 3-4 lecture hours/week

Prerequisites: Eligibility determined by English Placement Test.

Description: Prepares students for ENGL 800, and is especially recommended for students with deficient writing and reading skills. Content: writing to include sentences through expository paragraphs, with one expository essay (500 words); reading to use short non-fiction and fiction works; some work on study skills and critical thinking.

ENGL 802 READING AND INTERPRETATION.

Units 4
 Class Hours 4 lecture hours/week

Prerequisites: ENGL 801

Description: This course is a continuation of English 801. Content: reading and interpreting of novels, poetry, and drama; writing of paragraphs and short essays; continued work on study skills and critical thinking.

ENGL 860 VOCABULARY DEVELOPMENT.

Units (Grade Option) 2
 Class Hours 1 lecture/1 lab hour/week

Prerequisites: None

Description: A course in vocabulary improvement, including use of context and structural clues, and use of the dictionary. Frequent individual quizzes. May be repeated three times for credit.

ENGL 870 SPELLING.

Units (Grade Option) 2
 Class Hours 1 lecture/1 lab/week

Prerequisites: None

Description: Word history, derivation, formation, and spelling rules are covered in the course. Students may be placed in English 870 as a result of their English Placement Test results, but the course is open to all students.

ENGL 875 GRAMMAR REVIEW.

Units 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: While primarily intended as a semester-length "brush-up" course, English 880 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.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

LIT. 101 MODERN LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: ENGL 100 or equivalent.

Description: Study of selected fiction, poetry, and drama of the 20th Century. Lectures, discussions, related reading, writing of critical papers.

LIT. 111 THE SHORT STORY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: ENGL 110 or equivalent.

Description: Designed to help the student understand short stories, perhaps the most popular form of prose fiction today. Careful analysis of short stories as a means of developing in the student a critical method for the evaluation of the short story form.

LIT. 115 INTRODUCTION TO POETRY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: ENGL 110 or equivalent

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

LIT. 141 DRAMA STUDY AND APPRECIATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: 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 analysis follow.

LIT. 142 GREAT PLAYS: CLASSICAL AND RENAISSANCE.

(Also DRAM 142)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: Study of the greatest plays and playwrights from classical Greece to the Elizabethan era in England. Principles underlying dramatic literature in each period will be related to dominant social, intellectual, and artistic forces. Play attendance may be required.

LIT. 143 GREAT PLAYS: MODERN ERA.

(Also DRAM 143)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: Study of the great plays and playwrights from the 17th century to the present. Principles underlying dramatic literature in each period will be related to dominant social, intellectual, and artistic forces. Play attendance may be required.

LIT. 144 HISTORY AND DEVELOPMENT OF THE

AMERICAN MUSICAL. (Also DRAM 144)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: Students study the development of the American musical theater from its European roots through vaudeville, revues, etc., to the modern concept musical. The class explores how musical theater of the period reflects the social and cultural trends in American society. The structural components of musical theater, as well as significant contributions to this unique American theatrical form, will be a major part of the class.

LIT. 151 INTRODUCTION TO SHAKESPEARE I.**(Also DRAM 151)**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100 or equivalent.
 Description: Study of representative plays of Shakespeare. A chronological sequence of plays, from each of the phases of Shakespeare's creativity, will be covered. Some discussion of Shakespeare's life and times and some discussion of his poetry will be included, although the plays are the main focus of the course.

LIT. 152 INTRODUCTION TO SHAKESPEARE II.**(Also DRAM 152)**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100 or equivalent.
 Description: Study of selected plays of Shakespeare. Some discussion of Shakespeare's life and times and some discussion of his poetry will be included, although his plays are the main focus of the course. Plays covered are different than those in LIT. 151 and are not selected on a chronological basis.

LIT. 191 CHILDREN'S LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Designed to give practical experience in presenting stories and poetry to children in the pre-school and primary grades. 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. Development of resource files.

LIT. 200 MAJOR FIGURES IN AMERICAN LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 100 or equivalent.
 Description: Study of the writings of some of the major figures in American literature. Intensive reading, lectures, discussion, papers.

LIT. 231 SURVEY OF ENGLISH LITERATURE I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 110
 Description: Study of the typical works of major English writers from Chaucer to the end of the 18th Century. Discussions, lectures, writing of critical essays.

LIT. 232 SURVEY OF ENGLISH LITERATURE II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 110
 Description: Study of the typical works of major English writers from the Restoration to the Victorian period. Discussions, lectures, writing of critical essays.

LIT. 233 SURVEY OF ENGLISH LITERATURE III.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ENGL 110
 Description: Study of major English writers of the 20th century, including Woolf, Eliot, Yeats, and Huxley. Discussions, lectures, writing of critical essays.

LIT. 251 WOMEN IN LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course explores women writers' views of women and men in short stories, novels, poetry, drama, and film. The class discusses literature beginning with the ancient

Greeks up to contemporary feminist writers, comparing men and women writers on similar themes. May be repeated three times for credit.

LIT. 252 WOMEN WRITERS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course presents an overview of women writers' literary history and then concentrates in depth on selected writers and works.

LIT. 266 BLACK LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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. Satisfies Ethnic Studies requirement.

LIT. 268 BLACK POETRY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of 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. Satisfies Ethnic Studies requirement.

LIT. 301 MASTERPIECES OF CLASSICAL AND EUROPEAN LITERATURE I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: Eligibility for ENGL 100 or equivalent.
 Description: Selections from the literature of ancient Greece through Renaissance Europe will be read, analyzed, discussed and enjoyed. Group work, oral reports, papers.

LIT. 302 MASTERPIECES OF CLASSICAL AND EUROPEAN LITERATURE II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: Eligibility for ENGL 100.
 Description: 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.

LIT. 341 RUSSIAN NOVEL/SHORT STORY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

LIT. 371 MEXICAN-AMERICAN LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study (in English) of literature written by Mexican-Americans. Emphasis will be placed upon contemporary stories, poems, and essays. Satisfies Ethnic Studies requirement.

LIT. 372 MYTH AND FOLKLORE OF LA RAZA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of the folk literature of Mexican and Mexican-American peoples, with special emphasis on their effect on contemporary values. Satisfies Ethnic Studies requirement.

LIT. 375 NATIVE-AMERICAN LITERATURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A study of the great epics and myths, the lyrical and narrative poetry, the oratory, and the contemporary works in prose and poetry of the American Indian from pre-Conquest times to the present. Satisfies Ethnic Studies requirement.

LIT. 422 FANTASY AND SCIENCE FICTION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of fantasy and science fiction emphasizing 20th Century works. Both popular writers and established literary figures covered in wide range of forms, types, and themes of science fiction. Extensive and intensive readings, lectures, discussion, and critical papers in areas of individual interest.

LIT. 431 MYTHOLOGY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introductory survey of mythology and its relations to ritual with emphasis on classical Mediterranean culture. Reading, discussion, exams, and papers.

LIT. 441 FILM STUDY AND APPRECIATION I.

Units (Grade Option) 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: None
 Description: Study of significant motion pictures from the early 1900s to the 1940s 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. May be repeated twice for credit.

LIT. 442 FILM STUDY AND APPRECIATION II.

Units (Grade Option) 3
 Class hours 3 lecture/1 lab hour/week
 Prerequisites None
 Description: Study of selected representative films (1940s to the present) from all over the world. Emphasis on the rhetoric of cinema directors' styles, and history of film. Objective: to understand film as an art and as a communicative medium. May be repeated twice for credit.

LIT. 455 THE NONFICTION FILM.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of the nonfiction film (including documentaries, propaganda films 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.

LIT. 461 FILM MAKING.

Units (Grade Option) 3
 Class Hours 2 lecture/2 lab hours/week
 Prerequisites: None
 Description: Theoretical and practical course on the art and technique of film making. Working from the conceptual stage, students will prepare scenarios, scripts and story boards. Using super 8mm equipment they will shoot film, edit their footage into a meaningful visual form and ultimately produce short films.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

READ 420 SPEED/EFFECTIVE READING.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: Satisfactory completion of READ 802 or 10th grade comprehension score on Nelson Denny.
 Description: By means of individual and group work, this course stresses increasing reading speed and reading rate flexibility. The course focuses on the various reading rates, including scanning, skimming, speed/rapid reading, average reading, analytical/critical reading, and study reading.

READ 801 DEVELOPMENTAL READING.

Units (Credit Only) 0.5-3
 Class Hours 5 lecture/lab hours/week
 Prerequisites: None
 Description: 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. Students may enroll in the class up to the twelfth week of the semester. May be repeated three times for credit.

READ 802 READING IMPROVEMENT.

Units (Credit Only) 0.5-3
 Class Hours 3 lecture hours/week
 Prerequisites: READ 801 or recommendation via ENGL Placement Test.
 Description: By means of individual and group work, the course stresses study skills, reading and comprehension, and vocabulary work. The course is especially recommended for those students whose reading and study skills require short-term help. Students may enroll in the class up to the twelfth week of the semester. May be repeated twice for credit.

WRIT 801 BASIC WRITING I.

Units (Credit Only) 3
 Class Hours 3 lecture hours/week
 Prerequisites: Concurrent enrollment in ENGL 800 or 801.
 Description: By means of individual and group instruction, this course concentrates on basic skills in writing, stressing sentence and paragraph composition and standard writing conventions and mechanics. May be repeated three times for credit.

WRIT 802 BASIC WRITING II.

Units (Credit Only) 0.5-3
 Class Hours 3 lecture hours/week
 Prerequisites: Concurrent enrollment in ENGL 800, 100, or 110.
 Description: Intended to augment writing instruction in other English courses. Emphasis is placed on organization, quality and support of ideas, language effectiveness, and various methods of essay-writing. Students may enroll up to the twelfth week of the semester. May be repeated twice for credit.

WRIT 804 BASIC WRITING PRACTICUM.

Units (Credit Only) 0.5-3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Drop-in writing class. Students may come into the class any weekday between 3 p.m. and 4 p.m. To enroll, a student need only come to the writing class.

ENGLISH INSTITUTE**E.I. 400 BASIC COMPOSITION.**

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: E.I. 844 or Placement by exam.

Description: Advanced practice in writing English for students whose native language is other than English. Emphasis on the grammar, mechanics, and rhetoric of written academic English.

E.I. 821, 822, 823, 824 GRAMMAR I, II, III, IV.

Units (Grade Option) 4 each
 Class Hours 4 lecture hours/week
 Prerequisites: Placement by exam.
 Description: Basic, intermediate, and advanced grammar and word study and practice for students whose native language is other than English. May be repeated once for credit.

E.I. 831, 832, 833, 834 LISTENING I, II, III, IV.

Units (Grade Option) 4 each
 Class Hours 4 lecture hours/week
 Prerequisites: Placement by exam.
 Description: Basic, intermediate, and advanced practice in aural comprehension of English for students whose native language is other than English. Special attention to pronunciation and use of idiomatic expressions, plus practice in English conversation. May be repeated once for credit.

E.I. 841, 842, 843, 844 WRITING I, II, III, IV.

Units (Grade Option) 4 each
 Class Hours 4 lecture hours/week
 Prerequisites: Placement by exam.
 Description: 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. May be repeated once for credit.

E.I. 861, 862, 863, 864 READING I, II, III, IV.

Units (Grade Option) 4 each
 Class Hours 4 lecture hours/week
 Prerequisites: Placement by exam.
 Description: Basic, intermediate, and advanced practice in reading English for students whose native language is other than English. Comprehension and vocabulary development are stressed. May be repeated once for credit.

E.I. 871, 872 CULTURAL ORIENTATION I, II.

Units (Credit Only) 0.5-1 each
 Prerequisites: None
 Description: Independent laboratory practice for students who wish to improve listening comprehension, vocabulary, and general English language skills. Designed for students whose native language is other than English, the graded materials include topics related to American language, society, and culture. 0.5 units for each 24 hours of practice in the Media Learning Center and the Computer Center. The courses may be repeated once for credit. The materials include audio-tape and videotape recordings, films, multi-media programs, and other independent-learning and computerized learning materials.

ENVIRONMENT**ENVR 120 ECONOMIC GEOGRAPHY.****(Also GEOG 120)**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Investigation and description of basic resources used by humans. Evaluation of effects cultural and physical environments have on utilization of these resources. Emphasis on industrialized regions of the world and interrelationship of urban growth and economic development.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

FRENCH**FREN 110 ELEMENTARY FRENCH.**

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: None
 Description: 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.

FREN 111 ELEMENTARY FRENCH I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The basic principles of beginning French, offered at a less intense pace than French 110. One semester equals approximately half of French 110. May be used for fulfilling transfer language requirements.

FREN 112 ELEMENTARY FRENCH II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 111
 Description: Further basic principles of beginning French, offered at a less intense pace than French 110. One semester equals approximately half of French 110. May be used for fulfilling transfer language requirements.

FREN 120 ADVANCED ELEMENTARY FRENCH.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: FREN 110 or equivalent.
 Description: 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.

FREN 121 ADVANCED ELEMENTARY FRENCH I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 110 or equivalent.
 Description: The basic principles of Advanced Elementary French, offered at a less intense pace than French 120. One semester equals approximately half of French 120. May be used for fulfilling transfer language requirements.

FREN 122 ADVANCED ELEMENTARY FRENCH II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 121
 Description: Further basic principles of Advanced Elementary French, offered at a less intense pace than French 120. One semester equals approximately half of French 120. May be used for fulfilling transfer language requirements.

FREN 130 INTERMEDIATE FRENCH.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: FREN 120 or equivalent.
 Description: 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.

FREN 140 ADVANCED INTERMEDIATE FRENCH.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 130 or equivalent.
 Description: 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.

FREN 161 READINGS IN FRENCH LITERATURE I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 140
 Description: Reading and discussion of works of French literature. Continued review of principles of grammar.

FREN 162 READINGS IN FRENCH LITERATURE II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 161
 Description: Further reading and discussion of works of French literature. Continued review of principles of grammar.

FREN 196 FRENCH LANGUAGE LABORATORY.

Units (Credit Only) 0.5-1
 Class Hours 3 lab hours per week
 Prerequisites: FREN 120
 Description: A program consisting of 25-50 hours of work to be done in the language laboratory emphasizing speaking and understanding French.

FREN 197 FRENCH PRONUNCIATION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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. Background in French recommended.

FREN 801 CONVERSATIONAL FRENCH I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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 of California State Colleges or at the University of California.)

FREN 802 CONVERSATIONAL FRENCH II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 801
 Description: 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.)

FREN 803 CONVERSATIONAL FRENCH III.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 802
 Description: 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.)

FREN 804 CONVERSATIONAL FRENCH IV.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: FREN 803
 Description: 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.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

GEOGRAPHY**GEOG 100 PHYSICAL ENVIRONMENT.**

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Basic characteristics of maps, the earth's grid, seasons, time zones, weather and climate, soils and vegetation, ocean currents, and landforms. The interrelationship of these basic factors will be analyzed in the regional framework of the entire earth's surface.

GEOG 110 CULTURAL GEOGRAPHY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Spatial distribution of the most important parts of human's cultural occupation of the earth. Consideration of culture within the geographic framework of race, language, religion, political boundaries, population distribution, settlement patterns, and making a living.

GEOG 120 ECONOMIC GEOGRAPHY. (Also ENVR 120)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Investigation and description of basic resources used by humans. Evaluation of effects cultural and physical environments have on utilization of these resources. Emphasis on industrialized regions of the world and interrelationship of urban growth and economic development.

GEOG 150 WORLD REGIONAL GEOGRAPHY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of basic geographic regions of the world. Physical and cultural features of each region. Emphasis on historical influences and population growth. Location of important geographic features, such as rivers, mountain ranges, climatic regions, countries, states, and major cities.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

GEOLOGY**GEOG 100 SURVEY OF GEOLOGY.**

Units (Grade Option) 3
 Class Hours 2 lecture/
 3 lab hours/week

Prerequisites: None
 Description: Basic principles of igneous, sedimentary and metamorphic geology. Lectures on rocks, minerals and the origin of the earth, continents and mountains. The entire lecture portion of this course is available as an individualized, self-paced, slide-tape presentation in the Media Learning Center. Field trips may be required.

GEOG 110 GEOLOGICAL HAZARDS.

Units (Grade Option) 3
 Class Hours 2 lecture hours/week
 3 field trips/semester

Prerequisites: GEOL 100 is recommended.
 Description: 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.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

GERMAN**GERM 110 ELEMENTARY GERMAN.**

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: None

Description: 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.

GERM 111 ELEMENTARY GERMAN I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: The basic principles of beginning German, offered at a less intense pace than German 110. One semester equals approximately half of German 110. May be used for fulfilling transfer language requirements.

GERM 112 ELEMENTARY GERMAN II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 111

Description: Further basic principles of beginning German, offered at a less intense pace than German 110. One semester equals approximately second half of German 110. May be used for fulfilling transfer language requirements.

GERM 120 ADVANCED ELEMENTARY GERMAN.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: GERM 110 or equivalent.

Description: Continuation of work begun in German 110, 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.

GERM 121 ADVANCED ELEMENTARY GERMAN I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 110 or GERM 112

Description: The basic principles of Advanced Elementary German, offered at a less intense pace than German 120. One semester equals approximately half of German 120. May be used for fulfilling transfer language requirements.

GERM 122 ADVANCED ELEMENTARY GERMAN II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 121

Description: Further basic principles of Advanced Elementary German, offered at a less intense pace than German 120. May be used for fulfilling language requirements.

GERM 196 GERMAN LANGUAGE LABORATORY.

Units (Credit Only) 0.5-1
 Class Hours 3 lab hours/week
 Prerequisites: GERM 120.

Description: A program consisting of 25-50 hours of work to be done in the language laboratory emphasizing speaking and understanding German.

GERM 801 CONVERSATIONAL GERMAN I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: A 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.)

GERM 802 CONVERSATIONAL GERMAN II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 801

Description: 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.)

GERM 803 CONVERSATIONAL GERMAN III.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 802

Description: 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.)

GERM 804 CONVERSATIONAL GERMAN IV.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: GERM 803
 Description: 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.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

HEALTH SCIENCE**HSCI 101 HUMAN HEREDITY AND BIRTH DEFECTS.**

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of the principles of human heredity, sex determination, embryonic development, and their relationship to defects of genetic and environmental origin.

HSCI 103 DRUGS AND ALCOHOL.

Units 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: 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.

HSCI 104 NUTRITION AND PHYSICAL FITNESS.

Units 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of the various aspects of good nutrition as they relate to physical fitness. Overweight, food fads, exercise are topics included.

HSCI 105 DISEASES.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of cause, prevention, and control of infectious and noninfectious diseases. Highlights of primitive medical practices and modern advances in fighting disease will be discussed.

HSCI 106 MENTAL HEALTH.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of personality development and emotional health including behavioral aspects, adjustment stress and problem-solving techniques.

HSCI 108 WOMEN'S HEALTH ISSUES.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Up-to-date study of how lifestyle choices influence current and future health of women. Role of diet, use of vitamin/mineral supplements and physical fitness will be stressed in each topic of the female menstrual cycle.

HSCI 410 MICROCOMPUTER FOR HEALTH SCIENCES.

Units 1
 Class Hours (8 weeks) 2 lecture hours/week
 Prerequisites: None
 Description: An introduction to microcomputers for students in Health Science related fields. Demonstrations, hands-on laboratory and applications for these fields will be provided.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

HISTORY**HIST 100 HISTORY OF WESTERN CIVILIZATION.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

HIST 101 HISTORY OF WESTERN CIVILIZATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None. HIST 100 is recommended.
 Description: 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, the World Wars and international experiments of the 20th Century.

HIST 102 HISTORY OF AMERICAN CIVILIZATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None. HIST 100 is recommended.
 Description: The colonial settlement of North America, the Enlightenment, the Age of Revolution, growth of democracy, the problems of industrialization, the emergence of modern society, the effects of expansion of the 19th and 20th Centuries on culture of America and the role of United States in modern world. (Fulfills American Institutions requirement.)

HIST 201 UNITED STATES HISTORY I.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey of U.S. history beginning with English colonization along the Atlantic Coast, and including the westward expansion of the colonists, the Revolution, the creation of the Constitution, the Federalist and Jeffersonian philosophies, the forces of sectionalism and nationalism, slavery and abolition, and the Civil War and Reconstruction. Economic, political, social and intellectual patterns of the period are examined. (Fulfills American Institutions Requirement.)

HIST 202 UNITED STATES HISTORY II.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None. HIST 201 is recommended.
 Description: Continues the work of HIST 201. Begins with the Reconstruction Period and explores industrial and urban expansion, economic and social development, patterns of liberal reform, and the foreign and domestic policies of the U.S. up to the present. (Fulfills American Institutions requirement.)

HIST 205 RELIGION IN AMERICA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Historical survey of religious thought and activity in this country and its influence upon the development of American civilization.

HIST 242 THE AFRO-AMERICAN IN U.S. HISTORY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None. HIST 201 or 202 recommended.
 Description: This survey course begins with a chronological study of the history of black Americans, from medieval Africa through the slave trade, American slavery, abolitionism, the Civil War and Reconstruction, Jim Crow America, the Harlem Renaissance, the 1930s and the "modern" civil rights period. In addition, it includes a study of the nature, causes, and effects of racial prejudice, and considers various means of dealing with, and trying to overcome, racism and prejudice in American society. (Fulfills Ethnic Studies or American Institutions requirements.)

HIST 310 CALIFORNIA HISTORY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey of major trends in California's growth, including the Indian cultures and their interrelationship with the Spanish discovery and colonization; the mission-rancho era; the American takeover; the Gold Rush and vigilante era; the constitutional, political, and economic growth of the state; and the contemporary social, political, economic, and environmental problems and questions of the most populous state in the Union.
 (Fulfills State and Local Institutions requirement.)

HIST 315 HISTORY OF SAN MATEO COUNTY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey history of the county's development from the pre-Spanish period up to the present. Topics include: the natural setting; the Ohlone Indian culture; the Spanish discovery and settlement; the mission-rancho era; the early American period with establishment of county government; advent of lumbering, railroads, and industry; growth of Bayside and Coastsides communities, airports, and industrial parks; contemporary social, economic, and political issues such as population shifts, land development, and voting trends. (Fulfills State and Local Institutions requirement.)

HIST 421 HISTORY OF AMERICAS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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. (Fulfills American Institutions requirement.)

HIST 422 MODERN LATIN AMERICA.

Units (Grade Option) 3
 Class hours 3 lecture hours/week
 Prerequisites: None
 Description: History of Latin America from independence to present. Emphasis on Latin America's role today; problems of Latin America, the United States, and their relationships; and the cultural ties binding Spanish-speaking people in the U.S. to a wider identity. (Fulfills Ethnic Studies requirement.)

HIST 451 FAR EASTERN CIVILIZATION AND HERITAGE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A general survey of the historical and cultural development of China 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. (Fulfills Ethnic Studies requirement.)

HIST 452 FAR EASTERN CIVILIZATION AND HERITAGE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A historical survey of the cultural achievement of China and Japan from about the 13th Century to the present. This course will recapitulate briefly the old cultural traditions, but the main discussion will be concerned 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. (Fulfills Ethnic Studies requirement.)

HIST 650 SPECIAL TOPICS SEMINAR.

Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Study of important intellectual, economic, or political trends of a particular period in history. The period and subject will vary upon interest of instructor and students.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

HOME ECONOMICS**H.EC 110 BEGINNING CLOTHING CONSTRUCTION.**

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Emphasis on basic techniques, sewing machine skills, and learning to understand fabrics and patterns. For students with little or no experience in clothing construction, or for students wanting to update knowledge. May be repeated three times for credit.

H.EC 111 TECHNIQUES OF FIT.

Units (Grade Option) 1-3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Emphasis on understanding sizing, ease, fabric variability, and individual figure problems. Effective pattern alteration by pivot and slide technique of skirts, pants and bodice patterns. This class may be offered in modules of from one to 3 units. May be repeated three times for credit.

H.EC 112 KNITS AND WOVENS.

Units (Grade Option) 1-3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Construction of garments using fabrics of varying amounts of stretch will be emphasized. Speed techniques using newest machines and notions such as sergers and rotary cutters will be included. This course may be offered in one-unit modules of a) sportswear techniques, b) combining knits and

wovens, and c) lingerie and swimwear techniques. May be repeated three times for credit.

H.EC 113 TEXTILES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of natural and chemical fibers; yarns and cloth construction; weaving; finishing; and dyeing. Study of purchase, use, care, and techniques of construction suitable for the different fabrics. Fabric characteristics and use in clothing will be emphasized.

H.EC 115 INTERMEDIATE CLOTHING CONSTRUCTION

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: H.EC 110 or 111 or 112, or equivalent.
 Description: Use of special fabrics such as plaids, silks, napped fabrics. Intermediate sewing techniques such as collars, button-holes, pockets, and detailing. Use of interfacing and linings. May be repeated three times for credit.

H.EC 116 ADVANCED CONSTRUCTION/TAILORING.

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: H.EC 111 or 115 or equivalent.
 Description: Techniques of professional dressmaking and tailoring applied to the construction of suits and coats. Emphasis will be on techniques, fit, and creative pattern adaptation. Field trips to study design and fabrics. May be repeated three times for credit.

H.EC 117 FASHION IMAGE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Selection of clothing and accessories based on analyzing and understanding personal coloring, figure proportions, life style, and fashion trends. Field trips and guest speakers. Recommended to merchandising, fashion retailing, and business students, as well as others interested in their appearance and its effect on others. May be repeated once for credit.

H.EC 118 FLAT PATTERN DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: H.EC 111 or 115 or equivalent.
 Description: Drafting a basic pattern to fit an individual figure. Use of the basic pattern and pattern-making theory to create a design will be studied. May be repeated three times for credit.

H.EC 120 CREATIVE CLOTHING CONSTRUCTION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: H.EC 111 or 118 or equivalent.
 Description: Learning how to design or copy garments by combining and/or altering patterns. Learning how to interpret from magazine sketch or picture to make an accurate copy. Patternmaking theory will be reviewed. Three garments will be made. May be repeated three times for credit.

H.EC 122 CONSTRUCTION OF CHILDREN'S CLOTHING.

Units (Grade Option) 1
 Class Hours (6-8 weeks) 3 lecture/demonstration hours/week

Prerequisites: None
 Description: Emphasis is on constructing children's clothing using speed techniques for low cost, maximum wear and minimum care. Students will construct samples of useful techniques as well as construct children's garments. May be repeated three times for credit.

H.EC 123 INTRODUCTION TO THE FASHION INDUSTRY.

Units (Grade Option) 3
 Class Hours 3 lecture/hours/week
 Prerequisites: None
 Description: Study of the fashion industry, design and manufacture, trends, terminology, careers, and job responsibilities.

H.EC 124 ART IN CLOTHING.

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Basic techniques of embellishing clothing will be covered including stitchery, machine work, painting, and beading. Originality and technical skill is emphasized. Markets for art in clothing will be researched. May be repeated three times for credit.

H.EC 125 ALTERATIONS.

Units (Grade Option) 1.5
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Techniques of altering ready-to-wear garments. Changing hems, seams, replacing zippers, relining, mending and restyling. Designed for persons interested in alterations for self or alterations as a part-time job. May be repeated three times for credit.

H.EC 127 CUSTOM DRESSMAKING.

Units (Grade Option) 1.5
 Class Hours (8 weeks) 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Emphasis on custom dressmaking and advanced alteration skills. Learn techniques and tips to make dressmaking and alterations profitable. Learn pricing, building your clientele, and other necessary skills. May be repeated three times for credit.

H.EC 128 DECORATING WITH FABRIC.

Units (Grade Option) 1.5
 Class Hours (8 weeks) 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Course covers basic techniques to make custom curtains, draperies, pillows, bedspreads, as well as table covers and accessories. Stress on selection of fabrics, determining yardage requirements, and techniques for handling large amounts of fabric. May be repeated three times for credit.

H.EC 129 UPDATE ON TECHNIQUES.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Update on sewing machines and attachments, new pressing equipment, notions, interfacings, fabrics, techniques, and trends in clothing construction. May be repeated three times for credit.

H.EC 150 HISTORY OF FASHION.

Units (Grade Option) 1-3
 Class Hours 2-3 lecture hours/week
 Prerequisites: None
 Description: Survey course of fashion from ancient Egypt to present day with particular emphasis on the 19th & 20th Centuries. Background for judging fashion trends and fads. Class may be offered in 1- or 1.5-unit modules. One-unit modules would be a) Egyptian time through 19th Century, b) 20th Century, and c) fashion trending.

H.EC 151 FASHION MERCHANDISING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An overview of the retail fashion industry and career options. Students will plan promotions, select a merchandise assortment, identify fashion trends and develop effective human relations and communications skills. Field trips and guest speakers.

H.EC 307 FOOD PREPARATION.

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Introduction to basic skills in food preparation, recipe development, menu planning, and cost analysis. Food demonstrations, tasting, home practice included. Includes microwave cooking techniques. May be repeated three times for credit.

H.EC 310 NUTRITION. (Also BIOL 310)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites None
 Description: Study of scientific principles of nutrition and interrelationships of metabolism; normal nutritional requirements through life cycle; consideration of health hazards of nutritional imbalance; emphasis on nutritional content of foods; evaluating diets and advertising; learning to use scientifically recognized nutrition references and consumer information.

H.EC 312 NUTRITION IN HEALTH AND DISEASE. (Also BIOL 312)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: H.EC 310 or BIOL 310.
 Description: Discussions of metabolic disorders of human body systems that require dietary modifications to compensate. Covers medical and dietary problems of the circulatory system, bony skeleton, endocrine system, excretory system, reproductive system, cancer, inborn errors of metabolism and natural food toxins. Emphasis on medical terminology.

H.EC 320 APPLIED NUTRITION (COOKING FOR HEALTH).

Units (Grade Option) 3
 Class Hours 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Lectures in realistic application of sound nutrition principles. Emphasis is placed on methods to improve diet by lowering total fat, sugar, and salt content of the American Diet, using food demonstrations, food tasting, and home food preparation practice. May be repeated three times for credit.

H.EC 410 MANAGEMENT OF TIME AND RESOURCES.

Units (Grade Option) 2
 Class Hours 2-3 lecture hours/week
 Prerequisites: None
 Description: Emphasis on time management and decision making. Motivation, creativity, communications, delegation, money management, and record keeping will be covered. Guest speakers. May be repeated once for credit.

H.EC 416 CONSUMER DECISION MAKING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of the skills needed for decision making by consumers in American society. Consumerism, rights and responsibilities, protection agencies, legislation, and practical rules of buymanship.

H.EC 420 COMPUTER APPLICATIONS FOR HOME MANAGEMENT.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture/demonstration hours/week
 Prerequisites: None
 Description: Overview of home computer software as tools in home management. Sources of software and relative costs. Review of representative software for record keeping, word processing, nutrition and menu management, textiles and clothing, child development, decision making, and family education. Chance to see how software can be selected and customized. Demonstration on IBM and APPLE computers. May be repeated once for credit.

H.EC 699 CLOTHING CONSTRUCTION LABORATORY

Units (Credit/No Credit) 0.5-1
 Class Hours 2 to 6 hours/week
 Prerequisites: None
 Description: Opportunity for students to use the laboratory equipment and to get individual help from the laboratory instructor. Credit based on attendance and satisfactory progress in skill development. May be repeated 3 times for credit.

H.EC 830 CONSUMER ENERGY CONSERVATION.

Units (Grade Option) 0.5
 Class Hours (3 weeks) 3 hours/week
 Prerequisites: None
 Description: Practical techniques of energy conservation; insulation, weather stripping and uses of solar energy. Guest speakers.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

HUMANITIES**HUM. 100 INTRODUCTION TO THE HUMANITIES.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of the Humanities (Art, Drama, Literature, Music), their uniqueness, their interrelatedness, their ability to reflect human development and aspirations. Introduces a variety of disciplines; particularly helpful for those undecided about an area of concentration.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

INTERIOR DESIGN

INTD 115 YOUR HOME AND YOUR ENVIRONMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Analysis of the home's total environment aesthetically, physically and psychologically from the standpoint of function, beauty and cost emphasizing the fulfillment of human needs. Student project in creating a specific environment for individuals within a community. Field trips required.

INTD 125 DETAILING INTERIORS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 115
 Description: To give in-depth information as to the choices for the designing of the home and office. Two projects and a field trip required.

INTD 146 GRAPHICS FOR INTERIORS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Mechanical methods of developing working drawings of designs and plans for cabinet-makers, builders, craftspeople, and clients. Course covers freehand rendering and sketching of furniture, fabrics, and accessories to scale. Perspective 1 and 2 point drawing for presentation; furniture and isometric drawings. May be repeated once for credit.

INTD 147 INTERIOR SPACE PLANNING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 115, 148, ARCH 110
 Description: Complete lectures proceeding room by room in the art of space planning, especially emphasizing residential designing, but with some contract planning as well. A maquette, three space planning projects, and a field trip are required. May be repeated once for credit.

INTD 148 COLOR FOR INTERIORS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The application of basic color systems to the visual control of interior space. Practice of design principles which govern the use of interior color composition of objects. Relation of color-as-light to color-as-pigment illustrated with structural materials, paints and finishes, furniture, fabrics, lighting, decorative accessories.

INTD 150 HISTORY OF INTERIORS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Traces the history of Western man's dwellings, their interiors, and how they were furnished. A survey of architecture, interior design, and furniture from the cave to today. Obligatory for prospective interior designers and architects. Meaningful for traveler, novice, professional, and those seeking self-enrichment.

INTD 156 PORTFOLIO/PROJECTS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 115, 147, 148, 250
 Description: Application of design principles and graphic skills to the assembly of a professional portfolio in the interior design job market with examples of drafting and space planning (floor plans, elevations, furniture arrangements) and color-fabric-materials-furniture boards in both residential and commercial applications. Projects from previous classwork and new projects introduced to emphasize the student's particular strong points and career objectives. May be repeated once for credit.

INTD 160 DECORATING TECHNIQUES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Lecture-laboratory period will cover the application of design elements and principles phasing into the actual making of products used in interior design. Techniques of gold and silver leafing, collage, stitchery and applique, rug making, painting, glazing, and the art of patina.

INTD 170 FABRICS FOR INTERIORS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Fabrics for home furnishings will be studied and evaluated with emphasis on selection, use, care, and performance relative to cost. Each step in the textile fabrication process, from fiber to fabric, from loom to yardage, will be analyzed for carpets, draperies, upholstery, and household linens. Individual in-depth studies will be compiled into resource booklets. Field trips to wholesalers, processors, and fabricators. For career or personal use.

INTD 180 CONTRACT DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ARCH 110, INTD 147, 260
 Description: Study of field of contract design from historical and contemporary perspectives, analyzing needs of non-residential interiors and public spaces. Project in space planning, interior landscaping, and all aspects of design plus data collection, computer planning, support centers, paper storage and retrieval, work flow, human needs, and barrier-free design.

INTD 245 INTERNSHIP IN HOME FURNISHINGS.

Units 1-2
 Class Hours 40-80 internship training hours required
 Prerequisites: INTD 115, 148
 Description: Interior Design students will be placed with cooperating interior design and home furnishing businesses for 40-80 hours of observation and work, supervised by an Interior Design instructor. Student will be placed according to interest, background, and talent. Four hours of preparation and orientation will precede assignment. Two hours of oral and written evaluation by student and instructor will summarize the experience. May be repeated for a maximum of 4 units.

INTD 250 PROFESSIONAL PRACTICES.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 115 and 147.
 Description: In-depth study of home furnishings sources and costs: Practical "how-to" processes of running an interior design business (setting up, bookkeeping, taxes, etc.). Projects specify sources and costing-out. Exploration of career opportunities in these areas. Field trips to sources (wholesale and retail), workrooms, and manufacturers.

INTD 260 FUNDAMENTALS OF LIGHTING.

Units (Credit Only) 2
 Class Hours (12 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: The aesthetics of lighting will be integrated with the basic technical information needed to understand light and its relationship to the human being and to lighting design. May be repeated once for credit.

INTD 270 FUNDAMENTALS OF KITCHEN DESIGN.

Units (Credit Only) 3
 Class Hours 3 lecture/hours week
 Prerequisites: None
 Description: Application of all the basic principles of kitchen design necessary for preparation for the job market. Study of floor plans drawn to scale, available products, new design concepts, and colors reflecting individual family needs, work habits, and entertaining style to justify the financial expenditure. Class project designing a kitchen. Field trips, guest speakers, and visits to homes.

INTD 271 FUNDAMENTALS OF BATH DESIGN.

Units (Grade Option) 2
 Class Hours (12 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Exploration of the basic principles of bath design including drawing scale floor plans, new design concepts, product availability and the use of color. Class project and field trips to product companies are required.

INTD 274 REMODELING CONSTRUCTION

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 270, ARCH 110
 Description: A complete overview of home construction with special emphasis on remodeling, including basic design materials, work sequence, vocabulary of building, tools of industry, codes, permits, and inspections.

INTD 276 ADVANCED KITCHEN AND BATH DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 270, 274, or concurrently.
 Description: Kitchen and bath designs will be developed using creative application of design concepts and principles. Products and materials will be studied for best usage to obtain personalized spaces. Specialized application of color, finishes, decorative detail, lighting, and plumbing will be covered. May be repeated once for credit.

INTD 278 MARKETING AND SALESMANSHIP FOR INTERIOR DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Basic principles of marketing and salesmanship are covered using design principles, floor plans, elevation procedures, drawing up agreements and payment schedules for a total presentation to the client. Techniques for approaching a client from inception to completion will be covered in sequence and detail. Class project: Selection of a room and development of a presentation to class for critiquing.

INTD 320 ORIENTAL ART FOR INTERIORS—CHINA AND KOREA.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Asian art through themes, motif, and methods. Survey of historic and contemporary work, as seen in furniture, wood accessories, fiber, fabric, paper, ceramics, paintings, and

prints, domestic architecture and interiors, and use of Oriental objects from these countries in today's interior design.

INTD 321 ORIENTAL ART FOR INTERIORS—JAPAN AND S.E. ASIA.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of Asian art and design themes, motifs, and methods from Japan and Southeast Asia. Study in use of Oriental art in contemporary interiors.

INTD 322 ORIENTAL ART FOR INTERIORS—INDIA, JAPAN, PHILIPPINES.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Study of Asian art and design themes, motifs from Japan (cont.), India, Philippines, and Persia. Study in use of Oriental art in contemporary interiors.

INTD 330 ARCHITECTURAL INTERIOR DETAILING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ARCH 110
 Description: Development and improvement of theory and drawing skills relating to advanced architectural interior detailing. Study and discussion of design concepts, use of materials, and how they all go together during construction. Emphasis on detail drawing procedures and techniques.

INTD 340 CABINETS AND FURNITURE DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 125, ARCH 110
 Description: The design and construction detailing of furniture, cabinets, and fixtures; display cases and wood paneling will be covered in-depth, including species of wood, joinery, and finishes.

INTD 350, 351 COMMERCIAL DESIGN.

Units (Grade Option) 3, 3
 Class Hours 3 lecture hours/week
 Prerequisites: .. INTD 115, 146, 147, 148, 260, 330, ARCH 110;
 INTD 260 and 355 may be taken concurrently with 350.
 Description: Experience in designing interiors of multiple unit commercial spaces (high rise offices, small buildings, hospitals, hotels) using work flow analysis, programming (gathering space and staff requirements), 3-dimensional design (axonometrics, isometrics, quick sketching, complete specifications, including furniture and furnishings, budget estimating, extensive and precise documentation, working drawings, techniques of presentation, time/work log. May be repeated once for credit.

INTD 354 RESIDENTIAL BUILDING SYSTEMS.

Units 1.5
 Class Hours 3 lecture hours/week
 Prerequisites: ARCH 110, INTD 147
 Description: Planning residential building and remodeling with design and scheduling of electricity, reflected ceiling ceiling plans, heating, ventilating, plumbing, building standards, codes, permits, cost estimating, documentation, and bidding. Problem solving emphasized.

INTD 355 COMMERCIAL CONSTRUCTION.

Units (Grade Option) 1.5
 Class Hours 3 lecture hours/week
 Prerequisites: INTD 115, 147, 260 or ARCH 110;
 INTD 260 may be taken concurrently.
 Description: Solving the practical problems in new commercial construction and remodeling pertaining to electricity, reflected ceiling plans, HVAC (heating, ventilating, air conditioning), plumbing, building standards, basic commercial building codes,

permits, cost estimating, documentation, bidding, TI (tenant improvements), requirements for the handicapped.

INTD 360 COMPUTERS FOR INTERIOR DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: ARCH 110 or INTD 330 or 350,
 BUS. 430,
 or equivalent computer competency.

Description: Fundamentals of 2- and 3-dimensional drafting and architectural detailing for space planning for interior designers and architects. Basics of 2-D drafting include floor plans, traffic patterns, room plans, furniture and equipment placement, with conversions to 3-D. Also 2-D drawings of lighting, electricity, HVAC, plumbing, sprinkler systems and telephone distribution. IBM-PC will be used. May be repeated once for credit.

INTD 411 HOME DECORATING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Step-by step process in designing a beautiful room that will function well. Students work with their personal design problems creating an atmosphere appropriate to their lifestyle within the economic means available to them. Do-it-yourself techniques to bring new life and personality to personal environments. Not recommended for the career interior design major.

INTD 450 HOME FURNISHINGS CONSUMER.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Cost and quality guides for selection of home furnishings, studied for wise decisions in purchasing carpets, hard floor coverings, furniture, antiques, lamps and lighting fixtures, appliances, wall coverings and draperies. Business/customer relationships: credit, grievances, legislation, rights and responsibilities.

INTD 681 CURRENT ISSUES.

Units (Grade Option) 1-4
 Class Hours By Arrangement
 Prerequisites: None
 Description: Selected current issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will meet standards of academic rigor required of all TRANSFER level courses, including outside reading and preparation, and strict evaluation. Courses focusing on single issues pertinent to the discipline. May be repeated for credit.

INTD 682 TRAVEL-STUDY COURSES.

Units (Grade Option) 1-5
 Class Hours By Arrangement
 Prerequisites: None
 Description: Selected travel-study issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will meet standards of academic rigor required of all TRANSFER level courses, including outside reading and preparation, and strict evaluation. Courses incorporating a travel-study format. May be repeated for credit.

INTD 881 CURRENT ISSUES.

Units (Grade Option) 1-4
 Class Hours By Arrangement
 Prerequisites: None
 Description: Selected current issues not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content and requirements will parallel standards and requirements of other NON-TRANSFER level courses. Courses focusing on single issues pertinent to the discipline. May be repeated for credit.

INTD 882 TRAVEL-STUDY COURSES.

Units (Grade Option) 1-5
 Class Hours By Arrangement
 Prerequisites: None
 Description: Selected travel-study courses not covered by regular catalog offerings. Course content and unit credit to be determined by the appropriate division in relation to community/student need and available staff. These innovative courses may be offered as seminar, lecture, or lecture/lab classes. See semester schedule for particular offerings. Course content standards and requirements parallel other NON-TRANSFER level courses. May be repeated for credit.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

ITALIAN

ITAL 801 CONVERSATIONAL ITALIAN I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A basic course in conversational Italian, with attention to pronunciation. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

ITAL 802 CONVERSATIONAL ITALIAN II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: ITAL 801
 Description: Further work in basic grammar idioms, and pronunciation. May be repeated once for credit. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

ITAL 803 CONVERSATIONAL ITALIAN III.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: ITAL 802
 Description: Further work with dialect and variation in Italian by means of drill, recitation, and reading. May be repeated twice for credit. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

ITAL 804 CONVERSATIONAL ITALIAN IV.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: ITAL 802
 Description: Further advanced work with dialect and variation in Italian by means of drill, recitation, and reading. May be repeated twice for credit. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

JAPANESE

JAPA 801 CONVERSATIONAL JAPANESE I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A basic course in conversational Japanese, with attention to pronunciation and symbol translation. Students will be taught the ability to express themselves simply and clearly in Japanese, and to understand Japanese spoken to them. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

JAPA 802 CONVERSATIONAL JAPANESE II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: JAPA 801
 Description: Further work in basic grammar, idioms and pronunciation. (This course will not fulfill language requirement at California State Colleges or at the University of California.)

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

JOURNALISM

JOUR 110 INTRODUCTION TO MASS MEDIA.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

JOUR 120 NEWSWRITING.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: JOUR 110 and eligibility for ENGL 100.
 Description: A study of the techniques of news gathering, of judging news values, and of writing the news story. Instruction in production of the student newspaper and in the principles of responsible editorial decision making. May be repeated three times for credit.

JOUR 220 INTRODUCTION TO ADVERTISING.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course will include a broad and comprehensive view of principles and procedures involved in planning and preparation of advertising campaigns. The structure and management of an advertising agency will be covered, with each student taking a product or service and marketing it through to the consumer. The course will also include the selection of media and media placement.

JOUR 230 INTRODUCTION TO PUBLIC RELATIONS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course will cover the principles, history, and professional practice of public relations. Emphasis will be placed

on the process of influencing public opinion, effective communication techniques, and the basic steps in public relations programming.

JOUR 300 NEWSPAPER PRODUCTION.

Units 2
 Class Hours 3 lab hours/week
 Prerequisites: JOUR 120 (may be taken simultaneously).
 Description: 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 three times for credit.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

LIBRARY SCIENCE

LIBR 100 INTRODUCTION TO LIBRARY RESOURCES.

Units (Grade Option) 1
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: A self-paced course designed to familiarize students with the variety of information resources available in academic libraries; effective use of such services and resources as magazines, newspapers, reference books, and microfilm materials for writing the term paper is a primary objective of the course.

A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MANAGEMENT

MGMT 100 MANAGEMENT THEORY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An overview of management theory as applied in both the private business and public sectors. Emphasis will be placed on theory, practice, and organization, and how they are applied to the major functions of management.

MGMT 105 FINANCIAL MANAGEMENT FUNDAMENTALS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introductory course whereby students can experiment with and gain a real-world understanding of the theories, concepts, tools, and techniques of finance. Course will present financial business situations and enable the student to study and analyze financial problems of both small and large business organizations.

MGMT 120 MANAGEMENT COMMUNICATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The communication process—both verbal and written. Lectures, discussions, case studies, and oral presentations on such topics as the relationship between communication and the organizational climate, perception, motivation, and the causes and patterns of barriers to effective communication.

MGMT 130 LABOR RELATIONS FOR MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Employee/management relations emphasizing: wage systems, working conditions, productivity, union organizations, collective bargaining, and unemployment. Labor/management conflicts from the point of view of wage earner, employer, general public, and governments.

MGMT 136 BUDGET AND PLANNING.

Units (Grade Option) 1.5
 Class Hours (8 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: The course is designed to give the management student a basic understanding of the budgetary and planning process as utilized in business and government. Strong emphasis is placed on the inter-relatedness of planning, budgeting, and evaluating processes within contemporary public and private sector organizations.

MGMT 137 PERFORMANCE MEASUREMENT TECHNIQUES.

Units (Grade Option) 1.5
 Class Hours (8 weeks) 3 lecture hours/week
 Prerequisites: MGMT 136
 Description: This course is designed to give the management student a basic understanding of performance measurement techniques presently being used in business and government. Emphasis will be placed on philosophy, techniques, and outcomes of performance appraisals as mechanisms for professional growth and development.

MGMT 215 MANAGEMENT OF HUMAN RESOURCES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introductory course to develop understanding of the personnel function including selection and placement, wage and salary procedures, affirmative action programs, performance appraisals, training and staff development.

MGMT 220 ORGANIZATIONAL BEHAVIOR.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Individual motivation, interpersonal communication, organizational influence, group dynamics and decision making in the organization; the relationships between culture, structure, and technology; leadership and the managing of organizational conflict.

MGMT 225 OFFICE MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Organization and planning of office services, office environment, and equipment; human relations and behavioral concepts; new dimensions of information management including "the automated office of the future."

MGMT 235 TECHNIQUES OF SUPERVISION.

(Also BUS. 235)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Designed to improve the student's skill in working with people. Analysis of the objectives and characteristics of good management. Group dynamics and small group behavior. Leadership and creativity in supervision. How to establish and maintain effective communications in the workplace.

MGMT 240 ORGANIZATIONAL LEADERSHIP.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to the motivational aspects of leadership. Examines how individuals react to different styles of leadership. Students will examine their own management practices and beliefs in order to gain insight into how these might be changed in order to become more effective. Techniques for assessing organizational climate.

MGMT 281 PUBLIC ADMINISTRATION MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Designed to give the student a basic understanding of principles and concepts underlying the organization and management of public organizations. Federal, state, regional, and local governmental structures, policies, and procedures will be examined. Particular emphasis will be placed on establishing programs reflecting public policy and on public accountability.

MGMT 282 PUBLIC FINANCE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Organization and functions of governmental fiscal administration; financial planning and control; analysis of the budget process, concepts of taxation, various types of revenue sources; inter-governmental financial relationships; debt management; special assessments; capital improvement budgeting.

MGMT 283 PUBLIC PERSONNEL ADMINISTRATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The course will provide a comprehensive analysis of personnel administration in the public sector. Topics will include the historical development of public personnel administration; values in public personnel administration; recruitment, selection, and placement of personnel; productivity management; compensation issues; affirmative action and EEO; performance appraisals; and labor-management relations.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MATHEMATICS

A normal sequence of mathematics courses at Cañada College is 110, 120 or 121, 115, 130, 220, 251, 252, 253, 275, 270. A student who qualified 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 qualifying 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 252, 253, and who has not had the prerequisite course, must have the approval of the Division Director. Questions regarding the equivalency of college preparatory mathematics beginning with elementary algebra, taken in elementary or secondary school should also be referred to the Division Director.

MATH 105 ELEMENTARY SCHOOL NUMBER SYSTEMS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The study of the number systems designed for prospective elementary education majors. Emphasis on understanding operations with whole numbers, fractions and decimals. Additional topics may include problem solving strategies, numeration systems and elementary number theory. Meets requirements of California Administration code of elementary school credential and/or Liberal Studies credential (multiple subject).

MATH 110 ELEMENTARY ALGEBRA.

Units (Grade Option) 5
 Class Hours 5 lecture/1 lab hours/week
 Prerequisites: .. Satisfactory score on Math Placement Test #1.
 Description: Elementary Algebra through quadratic equations. Satisfactory completion of this course will fulfill in part the mathematics entrance requirements of the universities.

MATH 111, 112 ELEMENTARY ALGEBRA.

(Evening Only)
 Units (Grade Option) 3, 3
 Class Hours 3 lecture/1 lab hours/week
 Prerequisites: .. Satisfactory score on Math Placement Test #1.
 Description: These two courses are equivalent to MATH 110. Recommended for those who have not previously had elementary algebra.

MATH 115 GEOMETRY.

Units 3
 Class Hours 3 lecture/1 lab hours/week
 Prerequisites: ... MATH 110 with grade of C or better, or two semesters of high school algebra with grades of C or better.
 Description: 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.

MATH 120 INTERMEDIATE ALGEBRA.

Units 5
 Class Hours 5 lecture/1 lab hours/week
 Prerequisites: ... MATH 110 with grade of C or better, or two semesters of high school math with grades of C or better and satisfactory score on Math Placement Test #2.
 Description: 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.

MATH 121 INTERMEDIATE ALGEBRA.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: ... MATH 110 with grade of C or better, or two semesters of high school mathematics with grades of B or better. Satisfactory score on Math Placement Test #3.
 Description: 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.

MATH 125 ELEMENTARY FINITE MATHEMATICS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: ... MATH 120 or 121 with grade of C or better. Satisfactory score on Math Placement Test #3.
 Description: Introduction to finite mathematics with attention to set theory, counting theory, probability, systems of equations, vector and matrix theory, inequalities and linear programming.

MATH 130 ANALYTICAL TRIGONOMETRY.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 115 and 120 or 121 (or equivalent) with grade of C or better; or six semesters of high school math with grades of C or better. Satisfactory score on Math Placement Test #3.
 Description: 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 and exponents, solution of triangles; complex numbers and De Moivre's theorem.

MATH 200 ELEMENTARY PROBABILITY AND STATISTICS.

Units 4
 Class Hours 4 lecture hours/week
 Prerequisites: MATH 120 or equivalent with grade C or better, or high school preparation including 1.5 years of algebra with grade C or better. Satisfactory score on Math Placement Test #3.
 Description: 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.

MATH 219 PRE-CALCULUS COLLEGE ALGEBRA/TRIGONOMETRY.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: ... MATH 130 or equivalent with grade of C or better, or seven semesters of high school level mathematics with grades of C or better. Satisfactory score on Math Placement Test #3.
 Description: 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, sequence inverse functions.

MATH 220 PRE-CALCULUS COLLEGE ALGEBRA.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 130 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. Satisfactory score on Math Placement Test #3.
 Description: Study of more advanced algebra including such topics as theory of equations, complex numbers, logarithmic and exponential functions, matrices, vectors, binomial theorem, sequences.

MATH 241, 242 APPLIED ANALYTIC GEOMETRY AND CALCULUS.

Units 5, 5
 Class Hours 5 lecture hours/week
 Prerequisites: ... 241—High school preparation including two years of algebra, and one year of geometry with grade B or better or MATH 121 or MATH 120. 242—MATH 241 with grade of C or better. Satisfactory score on Math Placement Test #3.
 Description: A two-semester sequence for students of business, social sciences, technology and life sciences. Topics include: analytic geometry, limits, differentiation, integration, extrema,

partial derivatives, calculus of trig/log functions and other selected topics.

MATH 251 ANALYTICAL GEOMETRY AND CALCULUS.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: ... MATH 220 with grade of C or better; MATH 120 or 121 and MATH 130 with grade of C or better; or seven semesters of high school level mathematics, each with a grade of B or better. Satisfactory score on Math Placement Test #3.
 Description: Basic concepts of calculus. Includes plane analytic geometry, differentiation, integration, differentials and anti-derivative formulas; application.

MATH 252, 253 ANALYTICAL GEOMETRY AND CALCULUS.

Units 5, 5
 Class Hours 5 lecture hours/week for each
 Prerequisites: ... 252-Completion of MATH 251 (or equivalent) with grade of C or better.
 253-MATH 252 with a grade of C or better.

Description: 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, vector calculus.

MATH 270 LINEAR ALGEBRA.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 252
 Description: Vectors and matrices applied to linear equations and linear transformations, real and inner product spaces.

MATH 275 ORDINARY DIFFERENTIAL EQUATIONS.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: MATH 253 (or equivalent) with grade C or better.

When approved by the instructor, may be taken concurrently with MATH 253.

Description: Differential equations of first, second and higher order; simultaneous, linear, homogeneous equations; solutions by power series; numerical methods; Laplace transformations, and applications.

MATH 410 TECHNICAL MATH.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: .. Satisfactory score on Math Placement Test #3.
 Description: A survey of fractions, reciprocals, similar triangles, proportions, sine, tangent relationships, inverse law and graphing.

MATH 811 PRE-ALGEBRA.

Units (Grade Option) 0.5-3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: None
 Description: Review of the fundamental processes in arithmetic; reading mathematical notation; translating words into symbols; properties of the real number system. May be repeated up to 3 units.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MICROBIOLOGY

MBIO 240 GENERAL MICROBIOLOGY.

Units 5
 Class Hours (Spring Only) 3 lecture, 6 lab hours/week
 Prerequisites: .. One semester of college chemistry and either BIOL 110, 130, BOTY 240 or ZOOL 210.

Not open to first semester freshmen.

Description: Morphology and physiology of microorganisms with emphasis on bacteria. Approximately 30 percent of course time is spent on microbes other than bacteria. Laboratory exercises include media making, isolation, and some of the standard methods employed in water and milk analysis.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MICROCOMPUTER APPLICATIONS

ACTG 190 COMPUTERIZED ACCOUNTING.

Units 3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: ACTG 100 or 121
 Description: The study of accounting utilizing a computer and accounting software for five systems: general ledger, accounts receivable, accounts payable, depreciation, and payroll.

BUS. 415 INTRODUCTORY KEYBOARDING/TYPEWRITING.

Units (Credit/No credit) 1-3
 Class Hours 3 lecture/2 lab hours/week
 Prerequisites: None

Description: Opportunity to develop correct keyboarding/ typing techniques using the alphabetic and text number keys on the IBM Selectric typewriter and/or the microcomputer. Slide/tape presentations, drills, and computer software are used to develop a minimum speed of 25 wpm with no more than one error per minute on timed writings. Proficient use of the 10-key calculator and/or the 10-key pad of the microcomputer is also taught. A course for persons who do not know how to type or use the computer keyboard.

BUS. 420 INTRODUCTION TO APPLE COMPUTER.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration hours/week
 1 lab hour/week

Prerequisites: None
 Description: Applications for microcomputers. This will include discussions and demonstrations of current microcomputer software and also introduction to more advanced microcomputer BASIC techniques.

BUS. 421 ADVANCED APPLE COMPUTER.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/demonstration hours/week
 2 lab hours/week

Prerequisites: BUS. 420
 Description: Advanced applications for microcomputers including business applications. Topics such as word processing, spreadsheets, database management and other software will be discussed and demonstrated.

BUS. 430 INTRODUCTION TO IBM-PC.

Units (Grade Option) 1.5
 Class Hours 1.5 lecture/1 lab hour/week

Prerequisites: BUS. 415 or concurrent.

Description: An introduction to microcomputers for the personal user of the IBM-PC. Students will be introduced to the disk operating system (DOS) for the microcomputer and to business applications software that includes word processing, spreadsheets, data bases, and telecommunications. Also included in the course is how to purchase a microcomputer for personal use. It is strongly recommended that BUS. 415 be taken concurrently with this course, or the student have the ability to type at least 25 words per minute. (This course does not meet certificate and/or degree program requirements.)

BUS. 431 MICROCOMPUTER FUNDAMENTALS.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 415 or concurrent.

Description: An introduction to the microcomputer using the IBM-PC. Students will learn to use the disk operating system (DOS), business applications software that includes word processing, spreadsheets, graphics, data bases, telecommunications, advanced DOS features, PC-hard-disk commands, and batch files. Also included are: how to purchase a microcomputer, an overview of DOS shells and integrators, troubleshooting techniques for the PC, and how to upgrade the PC. (Required for specified certificate programs.)

BUS. 432 MICROCOMPUTER WORD PROCESSING.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent;
 keyboard 40 wpm.

Description: Introduction to word processing on a microcomputer using a choice of word processing software (WordStar, IBM DisplayWrite 3, or WordPerfect). Students will choose one software package and learn to create files, keyboard text, revise and edit text, store files, paginate text, and print text. Course may be repeated once for credit.

BUS. 434 MICROCOMPUTER SPREADSHEET.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.

Description: An introduction to the use of spreadsheets concepts in solving business-related problems. IBM-PC LOTUS 1-2-3 will be utilized in this basic course. Strongly recommended enrollment in BUS. 415 preceding or concurrent with this course.

BUS. 436 MICROCOMPUTER DATABASE MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.

Description: An introduction to data base management techniques for common business applications. dBASE III software will be used on the IBM-PC to develop and report from a data base. The student will design database, establish the data entry screens and produce business reports from the data base. Strongly recommended enrollment in BUS. 415 preceding or concurrent with this course.

BUS. 438 MICROCOMPUTER GRAPHICS.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.

Description: An introduction to the use of graphics on microcomputers, with emphasis on the IBM-PC. Topics covered include hardware, software, and the display of visual information. Software covered will include computer-assisted design, com-

puter-assisted publishing, drawing programs, and standard business graphs.

BUS. 450 OFFICE AUTOMATION: MINICOMPUTER ALTERNATIVES.

Units (Grade Option) 3
 Class Hours 3 lecture/2 lab hours/week

Prerequisites: BUS. 430, 431 or equivalent.

Description: An introduction to the use of minicomputers in business with emphasis on the IBM System/36. Topics covered include hardware, software, system administration, planning and selection of a system. Business applications, including word processing, electronic mail, data management, and the use of IBM-PCs as workstations will be covered.

ECE. 243 MICROCOMPUTERS IN EARLY CHILDHOOD EDUCATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: None

Description: Exploration of computer software specifically designed for curriculum with young children. Authoring systems and languages (particularly emphasis on LOGO) included. Course neither requires nor assumes any prior computer knowledge. Emphasis on creative problem solving.

HSCI 410 MICROCOMPUTER FOR HEALTH SCIENCES.

Units 1
 Class Hours (8 weeks) 2 lecture hours/week

Prerequisites: None

Description: An introduction to microcomputers for students in Health Science related fields. Demonstrations, hands-on laboratory and applications for these fields will be provided.

H.EC 420 COMPUTER APPLICATIONS FOR HOME MANAGEMENT.

Units (Grade Option) 1
 Class Hours (6 weeks) 3 lecture/demonstration

hours/week

Prerequisites: None

Description: Overview of home computer software as tools in home management. Sources of software and relative costs. Review of representative software for record keeping, word processing, nutrition and menu management, textiles and clothing, child development, decision making, and family education. Chance to see how software can be selected and customized. Demonstration on IBM and Apple computers. May be repeated once for credit.

INTD 360 COMPUTERS FOR INTERIOR DESIGN.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week

Prerequisites: INTD 350, 355, BUS. 430,
 or equivalent computer competency.

Description: Fundamentals of 2- and 3-dimensional drafting and architectural detailing for space planning for interior designers and architects. Basics of 2-D drafting include floor plans, traffic patterns, room plans, furniture and equipment placement, with conversions to 3-D. Also 2-D drawings of lighting, electricity, HVAC, plumbing, sprinkler systems and telephone distribution. IBM-PC will be used.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MICROCOMPUTER TECHNICIAN**CTEC 400 TECHNICAL CALCULATIONS AND STUDY SKILLS.**

Units (Credit Only) 3.5
 Class Hours Ten 3-hour lectures/week for 2 weeks.
 Prerequisites: None
 Description: How to study a highly technical subject, including skills for making notes during lecture and home study. Learning to listen and read with care for accurate reception of the meaning in technical talk and text. Instruction in the use of the scientific calculator to solve numerical problems in basic electronics.

CTEC 420 DIRECT AND ALTERNATING CURRENT FUNDAMENTALS.

Units 5
 Class Hours Five 3-hour lectures
 plus five 3-hour lab/week for 4 weeks

Prerequisites: Completion of CTEC 400.
 Description: Lecture and accompanying laboratory work in the principles and theory of the use of resistors, capacitors, and inductors. An analysis of basic circuit connections with applied DC only, AC only, and DC plus AC. Instruction in the use of the electronic voltmeter, dual trace oscilloscope, function generator, frequency counter, and other basic laboratory instruments. How to troubleshoot simple circuits.

CTEC 440 SEMICONDUCTOR DEVICES AND CIRCUITS.

Units 2.5
 Class Hours Five 3-hour lectures
 plus five 3-hour lab/week for 2 weeks
 Prerequisites: Completion of CTEC 420
 with a grade of C or better.

Description: Study of the theory and application of diode and transistor devices. Biasing techniques for amplifier and switching circuits and analysis of their behavior. Use of laboratory instruments and basic troubleshooting techniques for solid state devices and simple circuits.

CTEC 460 DIGITAL DEVICES AND CIRCUITS.

Units 5
 Class Hours Five 3-hour lectures
 plus five 3-hour lab/week for 4 weeks
 Prerequisites: Completion of CTEC 440
 grade of C or better.

Description: Study of the truth tables and logical expressions for gate circuits. Interpretation of technical data manuals for functional characteristics of small and medium-scale integrated devices, such as gates, multiplexers, counters, registers, and solid state memory and display. Use of dual trace oscilloscope and logic probe for analysis and troubleshooting.

CTEC 500 MICROPROCESSOR PRINCIPLES.

Units 3.5
 Class Hours Five 3-hour lectures
 plus five 3-hour lab/week for 3 weeks.
 Prerequisites: Completion of CTEC 460
 with a grade of C or better.

Description: Discussion and application of how a microprocessor controls a single board microcomputer like the laboratory trainer. Study of the microprocessor instruction set, source program mnemonics, flowcharts, and simple programs and subroutines. Execution of programs on a laboratory trainer, and tracing the control, address, and data signals by means of a logic probe and oscilloscope. Construction and troubleshooting of test circuits on the trainer.

CTEC 520 MICROPROCESSOR INTERFACING APPLICATIONS.

Units 3.5
 Class Hours Five 3-hour lectures
 plus five 3-hour lab/week for 3 weeks.
 Prerequisites: Completion of CTEC 500
 with a grade of C or better.

Description: Theory and application of microprocessors in real time control of input and output devices such as keyboards, printers, and displays. Connection of a single board microcomputer to analog-to-digital and digital-to-analog conversion circuits. Instruction in troubleshooting of single board microcomputers and peripheral electronic and electromechanical equipment.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

MUSIC**MUS. 100 FUNDAMENTALS OF MUSIC.**

Units (Grade Option) 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: None

Description: Basic musical skills—singing, ear training, reading music notation, and harmonizing simple melodies. May not be applied toward the degree by the student whose major is music; suggested for a preliminary course to MUS. 101 and 131. Suggested for the elementary classroom teacher and the amateur musician.

MUS. 101 MUSICIANSHIP I.

Units (Grade Option) 2
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: None

Description: Music notation, keys, key signatures, intervals, sight reading and ear training. Some pianistic ability desirable.

MUS. 102 MUSICIANSHIP II.

Units (Grade Option) 2
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: MUS. 101

Description: Further work on music notation, keys, key signature, intervals, sight reading, ear training.

MUS. 103 MUSICIANSHIP III.

Units (Grade Option) 2
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: MUS. 102

Description: Continuation of MUS. 102. Emphasis is on ear training and sight reading.

MUS. 131 HARMONY I.

Units 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: None

Description: Study of chords and their relation to each other, in order to develop the ability to harmonize melodies on paper or at the keyboard. MUS. 131 & 132 carry the student from simple triads through and including chords of the dominant seventh. Usually taken concurrently with MUS. 101 & 103; some piano ability is essential.

MUS. 132 HARMONY II.

Units 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: MUS. 131

Description: Further study of chords and their relation to each other.

MUS. 133 HARMONY III.

Units 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: MUS. 131
 Description: Deals with chords of seventh and ninth, altered chords and modulations, and arranging for various vocal and instrumental groups, with some original composition.

MUS. 134 HARMONY IV.

Units 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: MUS. 133
 Description: Continuation of Harmony III, with analysis and composition in contemporary styles.

MUS. 135 COMPREHENSIVE MUSICIANSHIP.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: MUS. 131
 Description: Ear training and harmonic writing with emphasis on chord identification through aural dictation and the study of "Root Movement" in European music from 1700-1850.

MUS. 150 COMPOSITION.

Units 2-3
 Class Hours 2 lecture/1 lab hour/week
 Prerequisites: MUS. 131
 Description: Study of composition through analysis and original writing. Lab performance of works in various media.

MUS. 170 JAZZ IMPROVISATION.

Units 1
 Class Hours 1.5 lecture/1.5 lab hours/week
 Prerequisites: .. Ability to play an instrument and read music.
 Description: Performance and analysis of jazz improvisation.

MUS. 190 FINE ARTS FOR CHILDREN. (Also ART 190)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of methods and materials useful in teaching young children an understanding of art and music. Fosters self-expression in children. Experiences relate to the development of concepts in color, creation of paint media, line drawing, and form appreciation.

MUS. 202 MUSIC APPRECIATION AND SURVEY.

Units (Grade Option) 3
 Class Hours 3 lecture/1 lab hour/week
 Prerequisites: None
 Description: Music literature and history with emphasis on 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. This course is for non-music majors, as well as music majors.

MUS. 295 CONDUCTING.

Units 1
 Class Hours (6 weeks) 3 lecture hours/week
 Prerequisites: None
 Description: Development or review of conducting techniques with special emphasis on the choral literature. Selected problems in score reading and interpretation. Survey of publications.

MUS. 301, 302, 303, 304 PIANO.

Units (Grade Option) 2 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: None
 Description: A course in applied music with stress on technical and interpretive skills. Individual attention and advancement.

MUS. 305, 306, 307, 308 KEYBOARD HARMONY.

Units (Grade Option) 2 each
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course gives students hands-on keyboard proficiency in performing the harmonic theory studied in MUS. 131, 132, 133, 134; reinforces their aural perception of harmonic progressions; provides instruction for transposition; and lays foundation for improvisation at the keyboard. Some pianistic ability is helpful but not required.

MUS. 309 ACCOMPANYING.

Units 1
 Class Hours 3 lecture hours/week
 Prerequisites: Advanced ability.
 Description: Skills and techniques of playing accompaniments for singers, instrumental soloists and choral groups. Performance is an essential part of this course. May be repeated three times for credit.

MUS. 321, 322, 323, 324 BRASS INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: ... Concurrent enrollment in Band or Orchestra.
 Description: 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.

MUS. 325, 326, 327, 328 ADVANCED BRASS INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: Successful completion of jury examination; concurrent enrollment in Band or Orchestra.
 Description: Advanced problems of performance. Literature covered and specific requirements may be obtained from the Humanities Division office. This course is a parallel course to the applied music major study at California State Colleges.

MUS. 341, 342, 343, 344 WOODWIND INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: ... Concurrent enrollment in Band or Orchestra.
 Description: Techniques of playing the instrument of the student's choice with individual instruction. Grades will be determined by jury audition.

MUS. 345, 346, 347, 348 ADVANCED WOODWIND INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: Successful completion of jury examination; concurrent enrollment in Band or Orchestra.
 Description: Advanced problems of performance. Literature covered and specific requirements may be obtained from the Humanities Division office. The course is a parallel course to the applied music major study at California State Colleges.

MUS. 361, 362, 363, 364 STRING INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: Concurrent enrollment in Orchestra.
 Description: Techniques of playing the violin, viola, cello or string bass, with individual instruction and ensemble playing. Grades will be determined by jury audition.

MUS. 365, 366, 367, 368 ADVANCED STRING INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: Successful completion of jury examination; concurrent enrollment in Orchestra.

Description: Advanced problems of performance. Literature covered and specific requirements may be obtained from the Humanities Division office. This course is a parallel course to the applied music major study at California State Colleges.

MUS. 371 GUITAR I.

Units (Grade Option) 1
 Class Hours 3 lecture/lab hours/week
 Prerequisites: Possession of a guitar.

Description: Basic techniques of playing the guitar. Group and individual attention.

MUS. 372, 373, 374 GUITAR II, III, IV.

Units (Grade Option) 1
 Class Hours 3 lecture/lab hours/week
 Prerequisites: MUS. 371

Description: Advanced techniques of playing the guitar. Group and individual attention.

MUS. 391, 392, 393, 394 PERCUSSION INSTRUMENTS I, II, III, IV.

Units 1 each
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: ... Concurrent enrollment in Band or Orchestra.

Description: Techniques of playing the various percussion instruments, including mallet instruments, with class instruction, individual instruction and ensemble participation.

MUS. 401, 402, 403, 404 SOLO VOICE I, II, III, IV.

Units (Grade Option) 1 each
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: Vocal problems analyzed and corrected through exercises and songs. Class sessions and individualized instruction.

MUS. 405, 406, 407, 408 ADVANCED SOLO VOICE, I, II, III, IV.

Units 1 each
 Class Hours 3 lecture hours/week
 Prerequisites: Successful completion of jury examination prior to each semester.

Description: Advanced problems in vocal performance and technique. This course is a parallel course to the applied music major study at California State Universities.

MUS. 430 SYMPHONIC BAND.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: Demonstration of ability by audition.

Description: Study and performance of music for concert band. Performance is required. May be repeated three times for credit.

MUS. 440 SYMPHONY ORCHESTRA.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: MUS. 325, 345 or 365 or equivalent demonstrated ability.

Description: Study and performance of standard symphony orchestra literature and techniques. Performance is required. Each semester covers material differing from preceding semester. May be repeated three times for credit.

MUS. 441, 442, 443, 444 ORCHESTRA I, II, III, IV.

Units (Grade Option) 2 each
 Class Hours 5 lecture hours/week
 Prerequisites: MUS. 321, 341, 361 or equivalent demonstrated ability.

Description: Study and performance of standard literature and techniques for chamber and orchestral ensembles. Performance is required. Each semester covers material differing from preceding semesters.

MUS. 445 CHAMBER ORCHESTRA.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: Demonstration of ability by audition.

Description: Study and performance of standard chamber orchestra literature and techniques. Performances required. Each semester covers material different from that of the preceding. May be repeated three times for credit.

MUS. 461, 462, 463, 464**INSTRUMENTAL ENSEMBLE I, II, III, IV.**

Units 1 each
 Class Hours 1 lecture hour/week
 Prerequisites: Demonstration of ability by audition.

Description: Brass, String, and Woodwind ensemble. Performance is required.

MUS. 471, 472, 473, 474 CHOIR, I, II, III, IV.

Units (Grade Option) 1 each
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: Study and performance of choral literature for accompanied and unaccompanied choir. Performance is required. Field trips may be required.

MUS. 481, 482, 483, 484 COLLEGE SINGERS.

Units 2 each
 Class Hours 5 lecture hours/week
 Prerequisites: Demonstrated ability through audition; concurrent registration in MUS. 471, 472, 473, or 474.

Description: An advanced ensemble specializing in the performance of choral literature for small choir. Repertoire includes both traditional and "popular" contemporary styles. Performance is required. Field trips may be required.

MUS. 490 MASTER CHORALE.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: Previous choral experience and demonstrated ability through auditions.

Description: Rehearsal and performance of oratorios and other choral literature. Performance is required. May be repeated three times for credit.

MUS. 491, 492, 493, 494 ORATORIO CHORUS.

Units (Grade Option) 1
 Class Hours 3 lecture hours/week
 Prerequisites: Previous choral experience and demonstrated ability through auditions.

Description: Rehearsal and performance of oratorios and other choral literature. Performance is required.

MUS. 495 MUSICAL THEATRE.

Units 1-3
 Class Hours By arrangement
 Prerequisites: Audition

Description: Training in chorus, instrumental, and solo parts of staged musical shows or opera. Units depend on the hours the part demands. May be repeated three times for credit.

MUS. 496 MUSIC RECITALS.

Units (Credit Only) 0.5
 Class Hours 1 lecture hour/week
 Prerequisites: None
 Description: 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. May be repeated three times for credit.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

NATURAL SCIENCES**NSCI 100 INTRODUCTION TO NATURAL SCIENCES.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites None
 Description: An overview of the natural sciences, emphasizing their impact upon modern society. Descriptive material taken from both biological and physical sciences. Emphasis is upon recent discoveries which have affected modern living.

OCEANOGRAPHY**OCEN 100 OCEANOGRAPHY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Chemical and biological history of the oceans. Currents, waves, tides and coastal processes. Origin and evolution of the oceans and ocean basins with emphasis on recent discoveries in continental drift and sea floor spreading.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

OFFICE SKILLS

See **BUSINESS/OFFICE SKILLS**

OPHTHALMIC DISPENSING**OPHT 400 INTRODUCTION TO OPHTHALMIC OPTICS.**

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: Concurrent enrollment in MATH 410.

Description: An introduction to Ophthalmic Dispensing, its history and evolution to include basic spectacle nomenclature, the theory of light, lenses, prisms, and mirrors, the basic anatomy of the eye, and a survey of vision.

OPHT 411 OPHTHALMIC LAB TECHNIQUES I.

Units 4
 Class Hours 2 lecture, 6 lab hours/week
 Prerequisites: None
 Description: The finishing procedures in producing a pair of spectacles will be covered. The laboratory glazing and bench alignment. Finally, ANSI standards and prismatic problems are introduced. Each student is expected to complete 25 pairs of spectacles for grading. Field trips may be required.

OPHT 412 OPHTHALMIC LAB TECHNIQUES II.

Units 4
 Class Hours 2 lecture, 6 lab hours/week
 Prerequisites: OPTH 411
 Description: This course combines the theory of lens surfacing with the practice of layout of semi-finished blanks and the edging of finished multi-focal lenses. The concept of prism is emphasized to insure a thorough understanding of the mechanics of lens construction. Field trips may be required.

OPHT 431 OPHTHALMIC LENSES.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An introduction to the manufacture of glass and hard resin, plus the mathematical computations of lens construction. Properties, specifications, and uses of single vision and multifocal lenses will be introduced. Special lens types, i.e., lenticulars, aspherics, absorptive lenses, and myodiscs are described to provide a basis for the following dispensing courses. Field trips may be required.

OPHT 441 OPHTHALMIC FABRICATION.

Units 2
 Class Hours 1 lecture, 3 lab hours/week
 Prerequisites: OPTH 411 or 412
 Description: This course will expose the student to the greater variety of finishing requirements. Rimless, semi-rimless, tension and suspension mountings will be used. Dyeing of plastic lenses and repair of plastic and metal frames will be introduced in preparation for dispensing techniques.

OPHT 460 ANATOMY AND PHYSIOLOGY OF THE EYE.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course deals with anatomy of the eye: a study of vision, its chemistry, media, neurology and musculature. An introduction to pharmacology and related systemic diseases will be covered. This course is a necessary prerequisite to contact lenses.

OPHT 471 OPHTHALMIC DISPENSING TECHNIQUES I.

Units 3-5
 Class Hours 3 lecture, 1 lab hour/week
 Prerequisites: Must be combined with OPTH 431 or 680 for a minimum total of 4 units.

Description: This course combined with the student's employment is designed to turn the student into a thinking, working optician. The first part emphasizes basic dispensing skills and proceeds to deeper theory and its application.

OPHT 472 OPHTHALMIC DISPENSING TECHNIQUES II.

Units 3-5
 Class Hours 2 lecture, 2 lab hours/week
 Prerequisites: OPTH 471
 Description: The first part of the course concludes advanced theory and techniques, proceeds to specialty subjects and concludes with business and ethical aspects of Opticianry. Semi-formal round table discussions occur. May be repeated once for credit.

OPHT 491 CONTACT LENSES I.

Units 3.5
 Class Hours 3 lecture, 3 lab hours/week
 Prerequisites: OPTH 460
 Description: This course presents the introductory material for contact lens fitting. Nomenclature, manufacture, tolerances, clinical applications and fitting procedures will be covered in lecture. The lab will provide practical work in the adjusting of contact lenses, keratometry, inspection and an introduction to biomicroscopy. Field trips may be required.

OPTH 492 CONTACT LENSES II.

Units 3.5
 Class Hours 3 lecture, 3 lab hours/week
 Prerequisites: OPTH 491
 Description: An actual fitting situation will be presented with the opportunity to tie together theory and practice covering hard and soft contact lenses, symptomatology, contact lens pharmacology, and custom lens design. The program operates a simulated clinic and fits hard or gel contact lenses to provide the student with hands-on experience in patient and lens selection, evaluation and in doctor/dispenser communication. May be repeated once for credit.

OPTH 690 RESEARCH PROJECTS.

Units 2
 Class Hours By arrangement
 Prerequisites: Concurrent enrollment in OPTH 471.
 Description: Independent study research project; required in the 3rd semester. Minimum of 96 hours of independent study.

OPTH 710 BASIC CONTACT LENSES.

Units 2
 Class Hours 1.5 lecture/1.5 lab hours/week
 Prerequisites: OPTH 460 or equivalent.
 Description: This course is designed to help employed opticians gain the necessary knowledge and skills to pass the National Contact Lens Exam. The course covers lens materials, design, fitting theory and instrumentation.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PALEONTOLOGY**PALN 110 ANCIENT LIFE AND PAST ENVIRONMENTS.**

Units 3
 Class Hours 3 lecture hours/week, 1 all-day field trip.
 Prerequisites: None
 Description: An introductory ecological approach to the changing parade of life and ancient environments through the past 3.5 billion years of Earth history; and collecting, preparing, analyzing and interpreting a fossil marine fauna.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PARALEGAL**LEGL 250 LEGAL RESEARCH AND BIBLIOGRAPHY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: The student is introduced to reading and briefing legal cases and principles of legal writing; the differences between primary and secondary 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 and bibliographies; cite checking, etc.

LEGL 251 TORTS AND CONTRACTS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: 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.

LEGL 252 TRIAL PREPARATION AND STUDY OF LEGAL ETHICS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: 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.

LEGL 253 PROBATE ADMINISTRATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: 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.

LEGL 254 FAMILY LAW.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: 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.

LEGL 255 CORPORATIONS AND BUSINESS ENTITIES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: Basic orientation in business organizations involving sole proprietorships and partnerships with particular emphasis on corporations, and procedures for qualifying a foreign corporation in California.

LEGL 256 REAL ESTATE AND LANDLORD—TENANT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: 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.

LEGL 257 BANKRUPTCY AND DEBT COLLECTION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 259 or concurrent.
 Description: General outline of bankruptcy court; administration of bankrupt estates by receivers and trustees; preparation of schedules in voluntary cases, taking into consideration available exemptions.

LEGL 258 ADVANCED TRIAL PREPARATION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 252
 Description: A series of practical trial preparation projects primarily focusing on discovery matters and other aspects of trial preparation.

LEGL 259 INTRODUCTION TO LEGAL SYSTEM.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: English Placement Test.
 Description: The course will give an entering student a survey of the principles of law. Students will be required to study and resolve typical legal problems associated with the total system of law in the U.S. and California.

LEGL 260 ADVANCED LEGAL RESEARCH AND WRITING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: LEGL 250, 259
 Description: Student will undertake legal research and writing projects in a variety of subject areas.

LEGL 880 PARALEGAL CAREER FORUM.

Units (Credit/No credit) 5
 Class Hours 8 lecture hours
 Prerequisites: None
 Description: Student will get first-hand information on the paralegal profession from experts in various specialties; discussion of local, state, and national issues facing the paralegal profession; opportunity for small discussion groups to interact with paralegals, legal administrators, and paralegal supervisors.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PHILOSOPHY**PHIL 100 INTRODUCTION TO PHILOSOPHY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of ideas and issues which traditionally concern philosophic minds. Emphasis on doing philosophy as a means of understanding it. Critical evaluation of such philosophical topics as: Values and ethics, logic, political ideologies, human existence, science and religion, cosmology, and knowledge.

PHIL 103 CRITICAL THINKING.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Course is designed to improve the student's general reasoning skills. Techniques will be introduced to facilitate the recognition of arguments from various types of discourse, to distinguish valid from invalid arguments; sound and unsound arguments; structure of arguments; and informal logical fallacies. Many arguments will be taken from the mass media, including videotapes and newspapers.

PHIL 160 HISTORY OF PHILOSOPHY — ANCIENT AND MEDIEVAL.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: History of Western Philosophy from ancient to Renaissance. Selections from representative philosophers and/or

schools: Pre-Socratic; Plato; Aristotle; philosophy of the Roman world; Christian and early rationalist thought. Analysis of attempts to resolve fundamental metaphysical, epistemological and ethical questions.

PHIL 175 HISTORY OF PHILOSOPHY — 16TH TO 19TH CENTURY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Epistemological, metaphysical, and ethical systems in Western 16th to 19th Century philosophy. The Rationalists, Empiricists, Kant, and other idealists will be studied.

PHIL 190 CONTEMPORARY PHILOSOPHY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Emphasis on trends in 19th and 20th Century philosophy and their impact on social, political, economic and religious movements. Topics include: Idealism, Existentialism, Marxism, Maoism, Christian Philosophy, Logical Positivism, Pragmatism, Utilitarianism, and Contemporary Analysis.

PHIL 200 INTRODUCTION TO LOGIC.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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.

PHIL 240 INTRODUCTION TO ETHICS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Theories of the good life and moral obligation and their application to problems of individual and social behavior. Theories include: Epicureanism, Stoicism, and Hedonism; Plato and Aristotle; Augustine; Kant; Utilitarianism; and Relativism.

PHIL 300 INTRODUCTION TO WORLD RELIGIONS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A study of the great religions of the world; their cultural background, tenets, practices, literature and art, and their impact on society and culture. Covers the development of religious ideas, the western religions, and the eastern religions.

PHIL 310 PHILOSOPHY OF RELIGION.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Investigation of questions arising in the tradition: Religious scepticism, nature of God, revelation, miracles, faith, mystical experience; the problem of evil; death and immortality.

PHIL 320 ASIAN PHILOSOPHY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to philosophical development in China, India, and Japan. Emphasis on philosophical rather than religious evolution. A survey of historical systems combined with contemporary impact.

PHIL 650 SEMINAR IN PHILOSOPHY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: Two other courses in Philosophy.
 Description: Designed to provide an opportunity for philosophy majors and others who meet requirements to pursue some more advanced problems in philosophy.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PHYSICAL EDUCATION

To increase competency within each activity, classes may be repeated a maximum of three times.

ADAPTIVE/CORRECTIVE**ADAP 350 ADAPTIVE GENERAL CONDITIONING.**

Units (Grade Option) 0.5-1.5
 Class Hours 3 lab hours/week
 Prerequisite: Verification of limiting condition on file.
 Description: Individual exercise programming designed to meet each student's needs. Stretching exercises, light weights, stationary bicycles, and a variety of adaptive equipment are used to promote total fitness.

ADAP 351 WEIGHT TRAINING FOR THE PHYSICALLY LIMITED.

Units (Grade Option) 0.5-1.5
 Class Hours 3 lab hours/week
 Prerequisite: Verification of limiting condition on file.
 Description: Use of the Universal gym and other free weights to increase overall strength and flexibility.

ADAP 352 FITNESS AND MOTOR TRAINING FOR THE DEVELOPMENTALLY DISABLED.

Units (Grade Option) 0.5-1
 Class Hours 2 lab hours/week
 Prerequisite: .. Verification of developmental disability on file.
 Description: A variety of movements, games, and activities geared toward the development of motor coordination and improvement of physical fitness.

ADAP 353 FITNESS FOR THE DISABLED OLDER ADULT.

Units (Grade Option) 0.5-1
 Class Hours 2 lab hours/week
 Prerequisite: Verification of limiting condition on file.
 Description: Instruction in safe stretching exercises designed to sustain or improve flexibility, circulation, and muscular endurance. Relaxation, proper breathing and posture, and group games and activities are included. This course is designed for off-campus health care facilities.

ADAP 354 ADAPTIVE AQUATICS.

Units (Grade Option) 0.5
 Class Hours 3 lab hours/week
 Prerequisite: Verification of limiting condition on file.
 Description: Allows for physically limited students to participate in an aquatics environment for both exercise and basic swim skill instruction.

AQUATICS**AQUA 100 BEGINNING/INTERMEDIATE SWIMMING.**

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: Instruction in water adjustment, treading, floating,

breathing techniques, crawl, breaststroke, sidestroke, backstroke, and elementary diving; also personal water safety procedures. Class is divided by levels of ability.

COMBATIVES**COMB 401 SELF DEFENSE I.**

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: Designed for students to gain knowledge about basic self-defense. Areas covered will be mental preparation, avoidance of areas conducive to violent action; front and rear grasp releases, and ground tactics will be stressed. Both violent and non-violent techniques will be covered. Activities deal with all releases, striking, hitting, kicking, and knife and gun situations. Emphasis is placed on dealing with confrontations.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

DANCE**DANC 111 BEGINNING MODERN DANCE.**

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: None
 Description: Basic modern dance techniques, ballet techniques for proper body alignment, balance, flexibility and rhythmic coordination. Emphasis on movement technique and simple combinations.

DANC 112 BEGINNING/INTERMEDIATE MODERN DANCE.

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: None
 Description: Basic modern dance techniques, ballet techniques for proper body alignment, balance, flexibility and rhythmic coordination. Emphasis on movement technique and more advanced combinations and choreography.

DANC 115 ADVANCED MODERN DANCE.

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: DANC 112 or equivalent.
 Description: Synthesis of previous dance experience. Advanced modern technique, group improvisations and repertory experience.

DANC 130 INTRODUCTION TO JAZZ.

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: None
 Description: Designed for the student who has had no dance. It will provide the student with basic movement techniques, isolation of body parts, and an introduction to jazz dance and music.

DANC 131 BEGINNING JAZZ.

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites: None
 Description: Elementary jazz techniques, foot and leg development, isolation of body parts and a rhythmic appreciation of jazz musicians and music.

DANC 132 BEGINNING/INTERMEDIATE JAZZ.

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: None
 Description: Continuation of Beginning Jazz with emphasis on additional techniques and more lengthy jazz combinations.

DANC 140 BALLET.

Units (Grade Option) 1-1.5
 Class Hours 2-3 hours/week
 Prerequisites: None
 Description: Beginning techniques of classical ballet are studied and executed. Movement skills, body alignment and placement, rhythmic structures, qualities of movement, and the classical terminology are presented.

DANC 143 INTERMEDIATE BALLET.

Units (Grade Option) 1
 Class Hours 3 lab hours/week
 Prerequisites DANC 140
 Description: Continuation of DANC 140, concentrating on barre, center floor and dance variations.

DANC 330 CREATIVE DANCE.

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites None
 Description: Designed for the student who has had no dance. It will provide the student with basic movement. Technique, the use of props, elements of music, and the opportunity to learn several dances.

DANCE 350 DANCE AEROBICS.

Units (Grade Option) 1-2
 Class Hours 2-5 lab hours/week
 Prerequisites: None
 Description: Warm up, toning exercises, vigorous dance sequences, cool down and stretching are presented to upbeat pop music. Safely working at one's own pace is emphasized.

DANC 400 DANCE PRODUCTION.

Units (Grade Option) 2
 Class Hours 4 lab hours/week
 Prerequisites: One or two semesters of Modern or Jazz or equivalent.

Description: Includes both technique and composition. Student choreography, the elements of production—music, make-up, costumes, lighting and staging are included. A final concert, demonstration or studio rehearsal culminates the semester's work.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

FITNESS

FITN 101 ADULT FITNESS I.

Units (Grade Option) 2-3
 Class Hours 4 or 6 lab hours/week
 Prerequisites: None
 Description: Course is designed to foster understanding and development of physical fitness and its relationships to optimum health. Class will include basic instruction in 90 plus exercises to be used in warm-up and cool-down sessions that are related to the toning of major and minor muscle groups. Basic tests will be conducted measuring improvement in 1) workload pulse, 2) reduction in body fat percentage, 3) Cooper's 12-Minute Field Test. Testing and evaluation will be coordinated with the Cañada Fitness Institute.

FITN 105 FITNESS FOR LIFE.

Units (Grade Option) 1-3
 Class Hours 2-6 lab hours/week
 Prerequisites: None
 Description: Designed to be a complete fitness experience. Emphasis on cardiovascular fitness, flexibility, strength, and knowledge of physical fitness, well being and the human body. A fitness evaluation is required of each student new to the program; cost is \$20. Fitness counseling, based on the student evaluations, and fitness certification exams at the end of each semester are also required.

FITN 140 EXERCISE APPRECIATION I.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: A basic conditioning course. Progressive exercise plans are offered that involve strength, endurance, flexibility, coordination, balance and agility. Tests and evaluation are affiliated with the Cañada Fitness Institute.

FITN 161 WOMEN'S CONDITIONING I.

Units (Grade Option) 1.5-2.5
 Class Hours 5 lab hours/week
 Prerequisites: None
 Description: Course is designed to foster understanding and development of physical fitness. Appropriate tests are offered to identify needs and ability levels; all programs are presented on a "progressive" basis. Emphasis is placed on activities related to cardio-respiratory endurance, flexibility, agility and strength. Walking, jogging, rope skipping, basic weight conditioning, interval training, circuit work, and continual rhythmic activities are included.

FITN 165 WOMEN'S RESISTIVE FITNESS I.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: Course is designed to acquaint students with the various pieces of weight conditioning equipment emphasizing correct techniques and safety. Proper lifting form, correct breathing formats will be emphasized. The basic lifts offered are related to upper shoulder, chest, back, stomach, knees, calves, ankles and toes. The high intensity approach will be used. Students must fulfill the minimum required lifting standards.

FITN 201 BEGINNING WEIGHT CONDITIONING.

Units (Grade Option) 1-1.5
 Class Hours 2 or 3 lab hours/week
 Prerequisites: None
 Description: Emphasis on development of all general body areas. Both lower and upper body lifts are imparted. Special emphasis is placed on proper lifting form, breathing and safety procedures. Student measurements taken both at the beginning and end. Running is also part of the course format.

FITN 204 INTERMEDIATE/ADVANCED WEIGHT CONDITIONING.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: FITN 201 or equivalent.
 Description: 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.

FITN 315 POWER ACTIVITIES.

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites: None
 Description: Course is designed to offer experiences in the development of shoulder girdle, hands, arms, and general upper body. Rope skipping patterns to music are utilized for cardio-respiratory values. Progressive programs are offered in vertical rope climbing, peg board work, and iso-kinetic conditioning. All requirements are related to the individual's age and ability groupings.

FITN 430 CAÑADA FITNESS INSTITUTE.

Units (Grade Option) 1
 Class Hours 1 lecture hour/week
 Prerequisites: None
 Description: Lectures cover a myriad of topics related to total fitness. Physiology of exercise, coronary risk factors, METS, Ideal exercise programs, Heart rate thresholds, Rest/stress/distress, nutrition, aerobic vs. anaerobic work. Textbook recommended.

FITN 431 CAÑADA FITNESS INSTITUTE LABORATORY I.

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites: None
 Description: Course is designed to measure physical fitness standards in three distinct areas—anaerobics, anaerobics, and flexibility. Extensive testing is done in lean body mass/fat, strength, flexibility, and agility. ECG monitoring is administered. Working and resting blood pressures are monitored. Levels of fitness ascertained and evaluated by student-teacher conferences.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

INDIVIDUAL SPORTS

INDV 121 BEGINNING BADMINTON.

Units (Grade Option) 1-1.5
 Class Hours 2-3 lab hours/week
 Prerequisites: None
 Description: Provide instruction in the basic fundamentals of the game of badminton. Techniques of singles and doubles play will be covered. Rules of the game, as well as basic strategy are included.

INDV 124 INTERMEDIATE/ADVANCED BADMINTON.

Units (Grade Option) 1-1.5
 Class Hours 2-3 lab hours/week
 Prerequisites: INDV 121 or equivalent.
 Description: Review of basic fundamentals of the game. Serve, drive, clear and drop shot reviewed and drilled upon. Strategy of play, both singles and doubles, as well as more advanced strokes will be covered. Tournament play for both singles and doubles will be offered.

INDV 161 BEGINNING GOLF

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites: None
 Description: Beginning 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, some activity may be scheduled for local courses and driving ranges.

INDV 164 INTERMEDIATE/ADVANCED GOLF

Units (Grade Option) 1
 Class Hours 2 lab hours/week
 Prerequisites: Demonstrated skill.
 Description: 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. Sessions are conducted at Cañada College and Emerald Hills golf course.

INDV 166 EXPERT GOLF TRAINING.

Units (Grade Option) 1
 Class Hours 2.5 lab hours/week
 Prerequisites: Demonstrated skill.
 Description: Course is designed for students of expert golf ability who wish to develop their golf skills for competitive purposes. Instruction in the fundamentals as well as use of drills designed to improve golf skills. Play on a golf course and strategy will also be a major part of this course.

INDV 251 BEGINNING TENNIS.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: 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.

INDV 252 BEGINNING/INTERMEDIATE TENNIS.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: INDV 251
 Description: Designed for students with at least one semester of beginning tennis. Basic instruction on forehand and backhand ground strokes, serve, volley, lob and smash. Rules, scoring system, tennis etiquette and basic tactics of singles and doubles included. Drills and match play will be included throughout the semester. Major emphasis on individual improvement.

INDV 253 INTERMEDIATE TENNIS.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: INDV 251 or 252.
 Description: Designed for student with prior tennis experience. All strokes and shots presented including forehand and backhand ground strokes, serve, volley, lob, and smash. Intermediate instruction in singles and doubles play. Individual improvement will be the major emphasis.

INDV 254 INTERMEDIATE/ADVANCED TENNIS.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: Demonstrated skill.
 Description: Designed for the student with prior tennis experience. All strokes and shots presented, including forehand and backhand ground strokes, serve, volley, lob and smash. Advanced instruction in singles and doubles play. Individual improvement will be the major emphasis.

INDV 255 ADVANCED TENNIS.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: INDV 254 or demonstrated skill.
 Description: Class is designed for students with advanced tennis skills. Students should not have major fundamental weaknesses. Instruction will include the use of topspin and underspin, the attacking game, and adjusting to specific types of opponents. Individual improvement will be the major emphasis.

INDV 256 EXPERT TENNIS TRAINING.

Units (Grade Option) 2
 Class Hours 6 lab hours/week
 Prerequisites: Demonstrated skill.
 Description: Course is designed for men and women of expert tennis ability who wish to develop their tennis skills in daily workouts of 1.5 hours 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.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

THEORY

P.E. 115 INTRODUCTION TO ADAPTIVE PHYSICAL EDUCATION.

Units (Grade Option) 2
 Class Hours 2 lecture hours/week
 Prerequisites: None
 Description: Designed to provide a working knowledge of numerous disabilities and current adaptive physical education techniques for students interested in pursuing a career in adaptive physical education, physical therapy, special education, or any other health-related field.

P.E. 116 ASSISTING IN ADAPTIVE PHYSICAL EDUCATION.

Units (Grade Option) 0.5-1.5
 Class Hours 1 to 3 lab hours/week
 Prerequisites: None
 Description: Practical experience gained through assisting in any of the adaptive physical education classes.

P.E. 200 INTRAMURALS.

Units (Grade Option) 0.5-1
 Class Hours 2 lab hours/week
 Prerequisites: None
 Description: A student may earn one-half to one unit of credit for specified activities.

TEAM SPORTS

TEAM 101 BEGINNING BASEBALL.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: None
 Description: Course offers fundamentals of baseball, with 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.

TEAM 102 INTERMEDIATE BASEBALL.

Units (Grade Option) 1.5
 Class Hours 3 lab hours/week
 Prerequisites: TEAM 101 or TEAM 151 or demonstrated competency.

Description: Fundamentals of baseball with a strong emphasis on game situations, team play and rules. Skills taught will be more advanced than TEAM 101. Games will be played utilizing a pitching machine. Evaluation will include individual skills and knowledge of game situations.

TEAM 105 ADVANCED BASEBALL.

Units (Grade Option) 2
 Class Hours 6 lab hours/week
 Prerequisites: TEAM 102 or demonstrated competency.
 Description: Course is designed for the advanced baseball player with superior skills of play. Fundamentals of baseball related to the advanced player will be offered. Evaluation devices are geared to advanced skill in performance.

TEAM 111 BEGINNING BASKETBALL.

Units (Grade Option) 1-1.5
 Class Hours 2 to 3 lab hours/week
 Prerequisites: None
 Description: Course provides the fundamental skills of basketball such as dribbling, passing, and shooting. Elementary team offense and defense situations are offered dealing primarily with two and three men situations. Playing rules of the game will be stressed through written and practical examinations. Skill testing is emphasized. A round robin schedule will be provided.

TEAM 115 ADVANCED BASKETBALL.

Units (Grade Option) 1-1.5
 Class Hours 2 to 3 lab hours/week
 Prerequisites: TEAM 111 or demonstrated skill.
 Description: Advanced aspects of team offense and defense will be offered. 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.

TEAM 141 BEGINNING SOCCER.

Units (Grade Option) 1-1.5
 Class Hours 2 to 3 lab hours/week
 Prerequisites: None
 Description: Instruction in basic fundamentals essential for team play. Skills such as dribbling, trapping, passing, heading, shooting, and throw-ins will be combined with conditioning drills preparing one for competition. The laws of the game will be taught for a thorough understanding of team play. Tests of basic skills and game laws will be conducted.

TEAM 142 INTERMEDIATE SOCCER.

Units (Grade Option) 1-1.5
 Class Hours 2 to 3 lab hours/week
 Prerequisites: TEAM 141 or demonstrated skill.
 Description: Instruction in intermediate aspects of team play together with an extension of basic skills and knowledge for playing soccer. Considerable opportunity for competitive team play and conditioning. Tests of skills and knowledge are more advanced than in TEAM 141.

TEAM 143 ADVANCED SOCCER.

Units (Grade Option) 1-1.5
 Class Hours 2 to 3 lab hours/week
 Prerequisites: TEAM 142 or demonstrated skill.
 Description: Competitive team play will be stressed with advanced strategies employed. Tactics will be emphasized that require advanced skills and conditioning. Tests will be conducted to measure the degrees of proficiency.

TEAM 151 BEGINNING SOFTBALL.

Units (Grade Option) 2.5
 Class Hours 4.5 lab hours/week
 Prerequisites: None
 Description: A course which offers instruction in the basic fundamentals of softball play. Students participate in both round robin and tournament schedules. Beginning skills are taught and play situations expanded. Slow pitch receives the major emphasis, but fast pitch may be offered.

TEAM 152 INTERMEDIATE SOFTBALL.

Units (Grade Option) 2.5
 Class Hours 4.5 lab hours/week
 Prerequisites: TEAM 151 or demonstrated skill.
 Description: A course which offers intermediate level of softball play. Brief review of TEAM 151 fundamentals is offered. Intermediate aspects of team play will be emphasized through drills, round robin and tournament schedules.

TEAM 153 ADVANCED SOFTBALL.

Units (Grade Option) 2.5
 Class Hours 4.5 lab hours/week
 Prerequisites: TEAM 152 or demonstrated skill.
 Description: This course is designed for students already proficient in softball skills. Opportunities will be provided to play and develop advanced techniques of softball play. Emphasis will be placed on game strategies, rules, and advanced execution in game and tournament play.

TEAM 170 BEGINNING VOLLEYBALL.

Units (Grade Option) 1-1.5
 Class Hours 2 or 3 lab hours/week
 Prerequisites: None
 Description: Course provides instruction in the basic fundamentals of volleyball such as the serve, volley, dig, smash and hit. Proper rotation, rules and effective team play are taught. National volleyball rules of play strictly enforced. An evaluation program in all skills offered will be conducted. Tournament play and a round robin schedule are provided.

TEAM 171 INTERMEDIATE VOLLEYBALL.

Units (Grade Option) 1-1.5
 Class Hours 2 or 3 lab hours/week
 Prerequisites: TEAM 170 or demonstrated skill.
 Description: Designed for students desiring volleyball team play and individual skills beyond the beginning level. Includes a review of the skills of TEAM 170, as well as the bump, overhand serve, and related footwork. The spike, block and tumble dig are introduced and incorporated in team play. Evaluation of offensive and defensive tactics through round robin and tournament schedules.

TEAM 172 ADVANCED VOLLEYBALL.

Units (Grade Option) 1-1.5
 Class Hours 2 or 3 lab hours/week
 Prerequisites: TEAM 171 or demonstrated skill.
 Description: Volleyball play for students demonstrating mastery of volleyball skills or who have successfully completed TEAM 171. Advanced skills of individual and team play are emphasized. Considerable emphasis upon team strategy and techniques. Considerable tournament competition provided.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

INTERCOLLEGIATE SPORTS

VARS 100 VARSITY BASEBALL.

Units 2
 Class Hours 9 lab hours/week
 Prerequisites: Demonstrated ability.
 Description: Intercollegiate competition in the Golden Gate Conference and participation in regional tournaments, Northern California playoffs and the State J.C. Championships when qualified.

VARS 101 BASEBALL CONDITIONING.

Units 1
 Class Hours 6 lab hours/week
 Prerequisites: Must be taken concurrently with VARS 100.
 Description: A conditioning course specifically related to Varsity Baseball. Area of emphasis will be strength, flexibility and cardiovascular development as they precisely apply to baseball.

VARS 110 VARSITY BASKETBALL

Units 2
 Class Hours 9 lab hours/week
 Prerequisites: Demonstrated competence.
 Description: Intercollegiate varsity basketball competition in the Golden Gate Conference and participation in regional tournaments.

VARS 111 BASKETBALL CONDITIONING.

Units 1
 Class Hours 6 lab hours/week
 Prerequisites: Must be taken concurrently with VARS 110.
 Description: A conditioning course specifically related to Varsity Basketball. Area of emphasis will be strength, flexibility and cardiovascular development as they precisely apply to basketball.

VARS 140 VARSITY GOLF.

Units 2
 Class Hours 9 lab hours/week
 Prerequisites: Demonstrated ability.
 Description: Intercollegiate competition in the Golden Gate 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.

VARS 141 GOLF CONDITIONING.

Units 1
 Class Hours 6 lab hours/week
 Prerequisites: Must be taken concurrently with VARS 140.
 Description: A conditioning course specifically related to Varsity Golf. Area of emphasis will be strength, flexibility and cardiovascular development as they precisely apply to golf.

VARS 150 VARSITY SOCCER.

Units 2
 Class Hours 9 lab hours/week
 Prerequisites: Demonstrated ability.
 Description: Intercollegiate competition with four-year institutions and junior colleges in Northern California. League competition in the Golden Gate Conference.

VARS 151 SOCCER CONDITIONING.

Units 1
 Class Hours 6 lab hours/week
 Prerequisites: Must be taken concurrently with VARS 150.
 Description: A conditioning course specifically related to Varsity Soccer. Area of emphasis will be strength, flexibility and cardiovascular development as they precisely apply to soccer.

VARS 170 VARSITY TENNIS.

Units 2
 Class Hours 9 lab hours/week
 Prerequisites: Demonstrated ability.
 Description: Intercollegiate competition in the Golden Gate Conference and participation in dual matches, invitationals, league meet, Northern California and State Championships as qualified.

VARS 171 TENNIS CONDITIONING.

Units 1
 Class Hours 6 lab hours/week
 Prerequisites: Must be taken concurrently with VARS 170.
 Description: A conditioning course specifically related to Varsity Tennis. Area of emphasis will be strength, flexibility and cardiovascular development as they precisely apply to tennis.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PHYSICS**PHYS 120 SPACE, TIME AND RELATIVITY.**

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: An interest in reading.
 Description: A non-mathematical survey of modern physics, with particular emphasis on Einstein's Theories of Relativity 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.

PHYS 210, 220 GENERAL PHYSICS.

Units 4, 4
 Class Hours 3 lecture/2 lab/1 recitation hour/week
 Prerequisites: 210-elementary algebra and plane geometry, trigonometry is strongly recommended; 220-210.

Description: Lectures with experimental demonstrations covering mechanics, heat and sound in the first semester, and magnetism, electricity, light, and modern developments in the second semester.

PHYS 250, 260, 270 GENERAL PHYSICS.

Units (Grade Option) 4, 4, 4
 Class Hours: 3 lecture, 1 recitation,
 2 lab hours/week
 Prerequisites: 250—MATH 251 and either PHYS 210 or equivalent; 260, 270—MATH 252 and PHYS 250.

Description: 250—Mechanics, wave motion and special relativity. 260—Electricity and magnetism. 270—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.

PHYS 405 RADIATION PHYSICS.

Units 3-4
 Class Hours 3-4 lecture hours/week
 Prerequisites: Algebra; high school science.
 Description: An introduction to the basic ideas about matter, energy, electricity, magnetism and electromagnetic radiation, with emphasis on X-ray phenomena. Applications to the interaction of radiation with matter and X-ray circuits. Required for students pursuing careers as X-ray technologists.

PHYS 481 GEOMETRIC OPTICS.

Units 3
 Class Hours 2 lecture, 3 lab hours/week
 Prerequisites: MATH 410
 Description: The nature of light, rectilinear propagation, reflection, refraction, illumination, and an introduction to the theory of lenses as necessary for the total concept.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PHYSIOLOGY**PSIO 256 PRINCIPLES OF PHYSIOLOGY.**

Units 4
 Class Hours 3 lecture, 3 lab hours/week
 Prerequisites: Completion of ANAT 250 with a C or better.
 Description: This course will concentrate on the basic mechanisms involved with the functioning of the Human Body. Topics will include both cellular and major body system functioning. This course is not suitable for nursing or physical therapy. These majors should enroll in PSIO 260.

PSIO 260 HUMAN PHYSIOLOGY.

Units 5
 Class Hours 3 lecture, two 3-hour labs/week
 Prerequisites: One course selected from BIOL 110, 130, ANAT 250, ZOOL 210, knowledge of elementary chemistry and physics is recommended. (Spring only).
 Description: 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.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

POLITICAL SCIENCE**PLSC 150 INTRODUCTION TO POLITICAL THEORY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Traditional concepts of political thought, such as authority, community, freedom, and obligation, are explored as they bear on current issues. A comparative study is made of contemporary political ideologies, such as nationalism, fascism, communism, and capitalist and socialist versions of democracy.

PLSC 205 AMERICAN SOCIETY.

Units (Grade Option) 5
 Class Hours 5 lecture hours/week
 Prerequisites: Limited to foreign students or recent immigrants.

Description: An orientation to American political institutions, cultural values and social conditions. Topics include economics, national and local politics, education, mass media, family, current social problems. Examples of, and causes of, changes in these different topical areas are studied, and alternative responses and solutions in their native countries to what they find and study in the U.S., looking for similarities and differences. (Fulfills American Institutions requirement and State and Local Government requirement.)

PLSC 210 AMERICAN POLITICS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of American politics and government including public opinion, voting patterns and elections, pressure group and political party activity, the functions of the President, Congress and Supreme Court, constitutional guarantees of citizen's rights and liberties. (Fulfills American Institutions requirement.)

PLSC 310 CALIFORNIA STATE AND LOCAL GOVERNMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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. (Fulfills State and Local Government requirement.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

PSYCHOLOGY**PSYC 100 GENERAL PSYCHOLOGY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to psychology, including principles of learning, theories of personality, tests and measurements, behavioral disorders, mental health, developmental aspects of individuals, and social psychology. Experimental design and research data.

PSYC 108 PSYCHOLOGY IN PRACTICE.

Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Intended for those who wish a general picture of human psychology and do not plan to take further courses in psychology. Emphasis on an application of psychological principles to problems of every-day life rather than a technical/scientific approach.

PSYC 110 MARRIAGE AND RELATIONSHIP CHOICES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course is designed for the student who wishes to examine past, present, and future relationships which involve closeness and intimacy. Lifestyles of singlehood, marriage, divorce, and widowhood will be studied carefully during the semester. Topics include love and romance, sexual values, loneliness, power, jealousy, communication and conflict, and stepfamilies. The focus of the course will be on the relationships involved in marriage, as 95% of the population choose to marry at some point in their lives. However, as the marriage dissolution rate approaches 50%, a strong emphasis of the course is on choices of relationships other than marriage.

PSYC 201 CHILD DEVELOPMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An examination of the developmental trends affecting human growth from the prenatal period to adolescence. Emphasis upon the factors influencing physical, emotional, mental, and social development. PSYC 100 is required for transfer.

PSYC 202 ADOLESCENT BEHAVIOR.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Exploration of the behaviors, values and complexities of the adolescent years. Designed to be of value to persons seeking to understand the changes that occur in physical, emotional, mental, and social development during adolescence.

PSYC 210 EARLY CHILDHOOD EDUCATION PRINCIPLES. (Also ECE.210)

Units (Grade Option) 1-3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Overview of the nature and goals of Early Childhood Education. Awareness of historical perspective. Exploration of various program models in ECE. Qualifications and training of teachers of young children. Issues in ECE and potential future trends.

PSYC 211 EARLY CHILDHOOD EDUCATION CURRICULUM. (Also ECE. 211)

Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Development of goals and objectives lead to the selection and management of activities for young children. Foster skills in providing quality learning experiences. Appreciation of the value of children's play. Development of appropriate curriculum evaluation methods.

PSYC 212 CHILD, FAMILY, AND COMMUNITY. (Also ECE. 212)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Nature of varying and interacting factors of socialization. Focus is on middle childhood. Examination of contemporary family life styles and patterns of child rearing. Resources and community agencies available to children and families. Examination of contemporary factors influencing communities.

PSYC 221 THE SPECIAL CHILD.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None, PSYC 201 suggested.
 Description: Survey course emphasizing descriptive and diagnostic differences of exceptional persons (deaf, learning disabled, orthopedically handicapped, visually handicapped, emotionally disturbed, deaf/blind, and the gifted. Current approaches concerning educational and community programs.

PSYC 223 INFANT BEHAVIOR.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A survey of developmental trends and environmental influences during the first three years of life. Content especially designed for those interested in child development/early childhood education, parent education and infant education. Emphasis on developmental abilities within the early months and creation of environments that respond to infant needs.

PSYC 278 THE PSYCHOLOGICAL EXPERIENCE OF LA RAZA IN THE UNITED STATES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: 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. (Fulfills Ethnic Studies requirement.)

PSYC 300 SOCIAL PSYCHOLOGY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: PSYC 100 or SOCI 100.
 Description: Study of interaction among persons and groups. Focus on self-concept, attitude formation and change, interpersonal attraction, aggression, group dynamics and leadership, impression formation, and related topics. Experiential learning is included as part of this course.

PSYC 340 PSYCHOLOGY OF HUMAN SEXUALITY.

Units (Grade Option) 1.5-3
 Class Hours 24-28 lecture hours/semester
 Prerequisites: None
 Description: Course covers the psychological aspects of human sexuality influencing sexual identity and behavior. Knowledge of relevant sexual research, consideration of sexual malfunction, therapeutic approaches, and the exploration of personal attitudes and values.

PSYC 370 INTRODUCTION TO COUNSELING.**(Also ADMJ 370)**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to various theories of counseling and general principles on interviewing. Opportunity for the development of skills in establishing rapport, setting counseling goals, recognizing strengths in individuals, recognizing self-limitations, and making referrals and terminating counseling relationships.

PSYC 391 PARENTING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey of the stages of parenting. Guides for positive parenting structures (single parent, step parent, working parent, etc.). Emphasis on adjustment to parenthood and guideline for meeting the needs of children. Recommended elective in the Early Childhood Education Program.

PSYC 480 PARAPSYCHOLOGY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Introduction to the study of parapsychology, designed to acquaint the student with the various areas of psychic phenomena. An interdisciplinary approach using the tools of not only psychology but also biology, chemistry, physics, and philosophy to explain rationally and scientifically the hitherto unexplainable. Special emphasis on current trends. The history of psychic phenomena as well as present developments in laboratory and field research.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

RADIOLOGIC TECHNOLOGY**RADT 400 ORIENTATION TO RADIOLOGIC TECHNOLOGY.**

Units 2
 Class Hours 2 lecture hours/week
 Prerequisites: Acceptance in the Radiologic Technology Program.

Description: Orientation to Radiologic Technology including

hospital organization, medical ethics, economics, political and social influences on radiologic technology.

RADT 410 RADIOGRAPHIC POSITIONING.

Units 4
 Class Hours 3 lecture/3 lab hours/week
 Prerequisites: Acceptance in the Radiologic Technology Program.

Description: Positioning of the human body for radiographic purposes. Includes all routine examinations, discussion of pathologic conditions encountered on radiographs. Laboratories offer demonstration and student practice on actual radiographic equipment.

RADT 418 CLINICAL EDUCATION I.

Units (Credit/No Credit) 2
 Class Hours: 12 hours/week clinical education in affiliated hospitals (total 18 weeks)

Prerequisites: RADT 400 with grade of C or better.
 Description: Orientation to hospital and patient care. Includes education in radiology department and other hospital systems, practical positioning and care of the patient. Supervised practice in positioning with demonstrations.

RADT 428 CLINICAL EDUCATION II.

Units (Credit/No Credit) 3
 Class Hours: 30 hours/week clinical education in affiliated hospitals (total 10 weeks Summer Intersession)

Prerequisites: Completion of RADT 418, concurrent enrollment in RADT 420.

Description: Clinical education continues with the addition of practice in use of radiographic technique. One hour film critique each week.

RADT 430 RADIATION HEALTH AND PROTECTION.

Units 4
 Class Hours 3 lecture hours/week
 Prerequisites: A course in Physics.

Description: Radiation effects including somatic and genetic. Radiation detection instruments, evaluation of hazards and methods for reducing exposure to medical radiation. May be of interest to students not enrolled in the Radiologic Technology Program.

RADT 438 CLINICAL EDUCATION III.

Units (Credit/No Credit) 9
 Class Hours: 30 hours/week clinical education in affiliated hospitals (total 18 weeks)

Prerequisites: Completion of RADT 428 and concurrent enrollment in RADT 430.

Description: 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.

RADT 440 ADVANCED TECHNIQUES.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: RADT 410, 420, and 430 with grades of C or better.

Description: Application of basic technical and positioning knowledge to special procedures and care of the patient undergoing such procedures. Appropriate pathology encountered in special procedures is discussed.

RADT 448 CLINICAL EDUCATION IV.

Units (Credit/No Credit) 9
 Class Hours: 30 hours/week clinical education in affiliated hospitals (total 18 weeks).

Prerequisites: Completion of RADT 438.
 Description: 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. One hour film critique each week.

RADT 458 CLINICAL EDUCATION V.

Units (Credit/No Credit) 5
 Class Hours: 30 hours/week clinical education in affiliated hospitals (total 15 weeks).

Prerequisites: Completion of RADT 448.
 Description: Final phase of clinical education. Students will conduct majority of radiographic procedures with limited supervision in preparation for employment. Preparation for American Registry of Radiologic Technologists examination and for licensure by the State of California. One hour film critique each week.

RADT 495 NURSING FOR RADIOGRAPHERS.

Units 2
 Class Hours 2 lecture hours/week
 Prerequisites: Concurrent enrollment in the Radiologic Technology Program.

Description: Knowledge, skills and terminology of nursing procedures for the radiographer. Patient care, ethics and nursing procedures applicable in radiographic examinations.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

REAL ESTATE

R.E. 100 REAL ESTATE PRINCIPLES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: 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.

R.E. 110 REAL ESTATE PRACTICE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: R.E. 100

Description: Comprehensive presentation of real estate brokerage skills in the State of California with emphasis on the daily activities of salesmen and brokers. (Meets the State requirements for the broker's examination.)

R.E. 141 REAL ESTATE APPRAISAL.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: R.E. 100 or R.E. 110

Description: The course takes an overview of the appraisal of residential real estate, with emphasis on the single family residence. It addresses the many principles that motivate buyers and treats the three approaches to value. Further, it examines the basic elements and influencing forces on value, the appraisal process including the collection and evaluation of data, and writing the appraisal report.

RUSSIAN

RUSS 110 ELEMENTARY RUSSIAN.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: None

Description: Study of and practice in the basic forms and

patterns of Russian; development of a satisfactory pronunciation; learning and using vocabulary of high frequency; reading of simple Russian texts. Students are urged to make use of the listening facilities in the language laboratory.

RUSS 111 ELEMENTARY RUSSIAN I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: Approximately half of the semester's work in Russian 110 is covered in this course. Recommended for those students without any background in foreign language study.

RUSS 112 ELEMENTARY RUSSIAN II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: RUSS 111

Description: Approximately the second half of the semester's work in Russian 110 is covered. (Russian 111 and 112 are equivalent to Russian 110.)

RUSS 801 CONVERSATIONAL RUSSIAN I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: A practical course in the Russian language, approached by way of conversation. Intensive drills in the formulas and idioms of daily speech; supported by an introduction to basic grammar. (This course will currently not satisfy language requirement at transfer institutions.)

RUSS 802 CONVERSATIONAL RUSSIAN II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: Further drill in the patterns and idioms of daily speech, with support by further work in basic grammar. (This course will currently not satisfy language requirements at transfer institutions.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

**SECRETARIAL/OFFICE SKILLS
 WORD PROCESSING**

See **BUSINESS/OFFICE SKILLS**

SOCIAL SCIENCE

SOSC 100 SURVEY OF THE SOCIAL SCIENCES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None

Description: Survey of all the social sciences and how they are used in understanding current American social and political issues. Course is organized around the theme of computerization and technology.

SOSC 122 SOCIAL SCIENCE RESEARCH METHODS.

Units (Grade Option) 3
 Class Hours 3 lecture hours plus lab/week
 Prerequisites: None

Description: Basic course in social science research intended for students interested in pursuing work in the social sciences, such as experimental psychology, sociology, anthropology or economics; understanding of experimental design and analysis of data through the development of research projects activities. Hands-on computer experience.

SOSC 200 INTRODUCTION TO COMMUNICATION SKILLS.

Units (Grade Option) 1-3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Development of individual and small group communication skills. Topics include active listening, listening barriers, rapport, non-verbal communication, role playing, and responding to stress situations.

SOSC 250 MEXICAN-AMERICAN CULTURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Study of contemporary Mexican-American community including its political and cultural heritage, social structures, problems, movements, and creative contributions. Fulfills Ethnic Studies requirement.)

SOSC 260 AFRO-AMERICAN CULTURE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Contemporary view of Black America. Concerned with current political and social movements in Black communities. The Black family is examined, and the culture of the Black community is studied from present and historical perspective. (Fulfills Ethnic Studies requirement.)

SOSC 392 FAMILY LIFE CYCLE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Adult development trends and handling change, stress, and crisis, individual coping abilities will be examined. Topics include: family communication, marriage, parenting, divorce, suicide, violence, alcoholism, drug abuse, aging, and death.

SOSC 801 CURRENT AFFAIRS.

Units (Grade Option) 0.5-2
 Class Hours 8 hours per each 0.5 unit
 Prerequisites: None
 Description: A study of current domestic and international issues. List of topics varies from semester to semester. Political, social, and cultural events are analyzed to give perspective and understanding to them. This course is not designed for transfer and may not be accepted by four-year institutions. (May be repeated up to a total of 12 units.)

SOSC 802 WORLD FORUM SERIES.

Units 0.5-2
 Class Hours 8 hours per each 0.5 unit
 Prerequisites: None
 Description: Introduces the student to selected topics throughout the world. The culture of selected countries is studied in the framework of race, language, religion, political boundaries, population distribution and growth, along with historical influences, and political/economic problems. This course is not designed for transfer and may not be accepted by four-year institutions. (May be repeated up to a total of 12 units.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

SOCIOLOGY**SOCI 100 INTRODUCTION TO SOCIOLOGY.**

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Course centers on identification and analysis of basic social structures and forces that motivate and direct social behavior. Additional topics include an introduction to the method of sociology, a survey and analysis of America's social institutions; and the impact of political, economic, and social conditions.

SOCI 101 SURVEY OF THE CRIMINAL JUSTICE SYSTEM IN AMERICAN SOCIETY. (Also ADMJ 101)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: History and philosophy of criminal justice in America, identification of the justice system's component parts and their interrelationships, and the effect of social change on the criminal justice system. An in-depth study of the functions and responsibilities of each sub-system of criminal justice (police, courts, corrections), and a study of the legal standards, social responsibilities, and ethics of each subsystem which guide the process of serving justice.

SOCI 104 CONCEPTS OF CRIMINAL LAW. (Also ADMJ 104)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force.

SOCI 105 SOCIAL PROBLEMS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Examination of selected social issues viewed in relation to changes going on in society. Includes poverty, aging, health care, corporate power, and work. Emphasis on social science research and theory.

SOCI 120 INTRODUCTION TO GERONTOLOGY.

Units (Grade Option) 3
 Class Hours 16-48 lecture hours/semester
 Prerequisites: None
 Description: Introduction to the field of gerontology. Establishes perspectives on aging in our society, and examines the elderly as a population group with emphasis on physical, psychological and sociological aspects of the aging process and the effect on service to the elderly.

SOCI 126 JUVENILE DELINQUENCY. (Also ADMJ 126)

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Survey course examining various aspects of juvenile crime. Review and analysis of various explanations of delinquent behavior; survey and critique of the juvenile justice system; examination of selected agencies such as police, probation departments, juvenile courts, juvenile halls, state institutions, and private youth-service agencies.

SOCI 141 MINORITIES IN AMERICAN SOCIETY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Explores the history and contemporary experience of non-white people in the United States. Institutional racism, racial conflict, the role and the influence of regulation on social institutions. (Fulfills Ethnic Studies requirement.)

SOCI 350 INTRODUCTION TO CORRECTIONS.

(Also ADMJ 350)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Philosophy and history of correctional services. Survey of correctional institutions, probation concepts, parole operations, and community corrections. Correctional employee responsibilities, rehabilitation goals as they affect individual and inmate groups in both confined and field settings. Societal response to corrections, the effectiveness of corrections, and its impact on the society at large.

SOCI 360 INTRODUCTION TO CRIMINOLOGY.

(Also ADMJ 360)
 Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: The study of deviant behavior as it relates to the definition of crime; crime statistics; theories of crime causation; crime typologies. Introduction to the impact of crime, limits of the criminal law, juvenile delinquency, and society's reaction to criminal behavior.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

SPANISH

SPAN 110 ELEMENTARY SPANISH

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: None
 Description: 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 listening facilities in the language laboratory.

SPAN 111 ELEMENTARY SPANISH I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Approximately half of the semester's work in Spanish 110 is covered in this course. Recommended for those students without any background in foreign language study.

SPAN 112 ELEMENTARY SPANISH II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 111
 Description: Approximately the second half of the semester's work in Spanish 110 is covered. (Spanish 111 and 112 are equivalent to Spanish 110.)

SPAN 120 ADVANCED ELEMENTARY SPANISH.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: Spanish 110 or equivalent.
 Description: Continuation of Spanish 110. 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.

SPAN 121 ADVANCED ELEMENTARY SPANISH I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 110 or SPAN 112.
 Description: The basic principles of Advanced Elementary Spanish, offered at a less intense pace than Spanish 120. One semester equals approximately half of Spanish 120. May be used for fulfilling transfer language requirements.

SPAN 122 ADVANCED ELEMENTARY SPANISH II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 121
 Description: Further basic principles of Advanced Elementary Spanish, offered at a less intense pace than Spanish 120. May be used for fulfilling transfer language requirements.

SPAN 130 INTERMEDIATE SPANISH.

Units 5
 Class Hours 5 lecture hours/week
 Prerequisites: SPAN 120 or equivalent.
 Description: Practice of conversation and composition; review of grammar; class and collateral reading of Spanish and Spanish literature. Students are urged to make extensive use of the facilities in the language laboratory.

SPAN 140 ADVANCED INTERMEDIATE SPANISH.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 130 or equivalent.
 Description: 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. This course is intended for English speaking students and not bilingual students.

SPAN 161 READINGS IN SPANISH LIT. I.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 140
 Description: Oral and written composition, class reading of works of Spanish and Spanish-American literature, extensive collateral reading of varied types of Spanish and Spanish-American literature, and review of grammar.

SPAN 162 READINGS IN SPANISH LIT. II.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 161
 Description: Further study and practice in oral and written composition, class reading of works of Spanish and Spanish-American literature, collateral reading of varied types of Spanish and Spanish-American literature, and review of grammar.

SPAN 196 SPANISH LANGUAGE LABORATORY.

Units (Credit Only) 0.5-1
 Class Hours 3 lab hours/week
 Prerequisites: SPAN 120
 Description: A program consisting of 25-50 hours of work in the language laboratory, emphasizing speaking and understanding Spanish.

SPAN 801 CONVERSATIONAL SPANISH I.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A practical course in the Spanish language, approached by way of conversation. Intensive drill in the formulas and idioms of daily speech, 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.)

SPAN 802 CONVERSATIONAL SPANISH II.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 801
 Description: 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.)

SPAN 803 CONVERSATIONAL SPANISH III.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 802
 Description: 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.)

SPAN 804 CONVERSATIONAL SPANISH IV.

Units (Grade Option) 2
 Class Hours 3 lecture hours/week
 Prerequisites: SPAN 803
 Description: 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.)

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

SPEECH COMMUNICATION

SPCH 100 FUNDAMENTALS OF SPEECH COMMUNICATION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: Eligibility for enrollment in ENGL 100; SPCH 811 or 812 for non-native speakers of English.
 Description: This class is designed to introduce students to the form, function, history, and ethical requirements of public address. Students will study, prepare, and deliver speeches in the traditional forms. Speeches will be delivered in both impromptu (spontaneous) and extemporaneous (prepared) modes.

SPCH 111, 112 ORAL INTERPRETATION I, II.

Units 3 each
 Class Hours 3 lecture hours/week
 Prerequisites: Eligibility for enrollment in ENGL 100; SPCH 811 or 812 for non-native speakers of English.
 Description: Reading aloud from the printed page. Students will be instructed in the techniques necessary for effective oral reading, and will be encouraged to develop greater appreciation for literature, and for the considerable pleasure to be gotten from being read to by others and from reading to others in turn.

SPCH 120 INTERPERSONAL COMMUNICATION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPCH 811 or 812 for non-native speakers of English.
 Description: This course will consist of a serious examination of all the means by which we communicate during private discourse. Of special concern will be the study of the many rituals that govern our personal and private dialogue, as well as the many related elements of interpersonal exchange, including non-verbal factors, listening, advocacy, perception, and interpretation of communication symbols and events. This is not a course in public address.

SPCH 127 ADVANCED PUBLIC SPEAKING.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: SPCH 100 or equivalent.
 Description: More sophisticated than SPCH 100, this course continues the examination of the various forms of public address, with an emphasis on the study of persuasion and attitude change as affected by public address. The class will examine the forms, structure, effect, and ethical requirements of social, mercantile, political attempts at persuasion, past and current.

SPCH 130 VOICE AND ARTICULATION.

Units 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course will consist of a study of the communication of ideas, emotions, and values through the use of the vocal mechanism. Included will be lessons in vocal variety, expressiveness, resonance, articulation, and pronunciation. Designed for all students who feel the need to improve their ability to speak clearly and well. This class is likely to be especially helpful to those who intend to teach and for those who plan to enter the fields of speech, drama, radio-television, law, political science, and business.

SPCH 140 GROUP DISCUSSION.

Units 3 each
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A comprehensive introduction to the theory and practice of group discussion, this course will include study of leadership, authority, conflict resolution, rules of order, and facilitation of effective decision making within groups.

SPCH 811, 812 SPEECH FOR NON-NATIVE SPEAKERS I, II.

Units 3 each
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course is designed to help the non-native speaker develop greater fluency in spoken English. Course includes practice in pronunciation, word choice, and usage. Students will perform research necessary for the preparation and delivery of extemporaneous speeches.

A detailed description of the following courses may be found under Announcement of Courses, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.

TOURISM

TOUR 100 TRAVEL INDUSTRY REFERENCE MATERIALS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Travel industry reference materials and career skills necessary for employment. Course includes how to read and

use reference materials to prepare itineraries including hotels, airlines, steamships, local tour operations and wholesale package tours, and itinerary planning. Recommended: Take Tourism 100 and Tourism 721 concurrently.

TOUR 101 SELLING TRAVEL.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course will teach tourism students the sales techniques used in the travel industry in selling individual and group travel, basic marketing skills for retail agents; the sales promotion; public relations; and advertising methods used to attract various market segments. The course will include a salesmanship workshop; selling and packaging special interest groups; and advertising and sales promotion.

TOUR 103 TRAVEL DESTINATIONS/EUROPE.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Covers tourist attractions and facilities, reference materials and tariffs, surface travel and air routings. This course will include the British Isles and Ireland, Scandinavia, Central European countries, Eastern Europe and the Middle East.

TOUR 104 TRAVEL DESTINATIONS/WORLD.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: Covers tourist attractions and facilities, reference materials and tariffs, surface travel and air routings. This course will cover North, Central, and South America, Africa, the Orient, the South Pacific, India, and the East Asian Sub-continent.

TOUR 105 TRAVEL DESTINATIONS/NORTH AMERICA.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: This course covers the cultural and physical aspects of the principal tourist destinations for North America, including all U.S. states and territories, Mexico, and the Caribbean. Course will concentrate on reference materials and principal modes of transportation.

TOUR 200 INTRODUCTION TO HOSPITALITY AND TOURISM INDUSTRY.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: An introduction to the broad fields of tourism, travel, and hospitality. Among the topics covered are growth and development of hospitality and travel industries, components and suppliers in the travel-hospitality fields, destination development, social and economic impacts of tourism. (This course is the introductory course for the A.S. Degree/Transfer Program in Tourism.)

TOUR 710 ARC FORMS AND PROCEDURES.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100 and 721.
 Description: Application of learned theories; use of reference materials in itinerary preparation; sales techniques and training in reservations procedures in a travel agency, including credit sales procedures, insurance forms, M.C.O.'s, and other ARC forms, and other ARC sales reporting. TOUR 711, Airline Computer Training, may be taken concurrently with this course. Both should be taken immediately prior to the student going to work.

TOUR 711 AIRLINE COMPUTER TRAINING.

Units (Credit/No Credit) 1
 Class Hours 3 lecture/5 lab hours/week
 Prerequisites: TOUR 100, 721, and 710. (May be taken concurrently with TOUR 710).

Description: Lecture and lab course providing "hands-on" training on SABRE, APOLLO, and PARS computer terminals used by airlines and travel agencies in making passenger reservations. It includes all computer applications used in planning, confirming, and pricing airline itineraries and requested related travel services. May be repeated once for credit.

TOUR 712 INTERNSHIP IN TOURISM.

Units (Credit/No Credit) 1-3
 Class Hours 8 lecture and 40-120 work hours

Prerequisites: TOUR 100, and TOUR 721.
 Description: Tourism students will be placed with cooperating tourism businesses for 40-120 hours of observation and work, supervised by Tourism instructor. Student will be placed according to interest, background, and talent. Six hours of preparation and orientation will precede assignment. Two hours of oral and written evaluation by student and teacher will summarize the experience.

TOUR 715 F.I.T. PLANNING AND COSTING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100, TOUR 710.
 Description: International itinerary preparation (F.I.T.) worldwide and those reference materials used in planning and costing, including cruises, freighters, ferries, and passenger steamship travel, international rail, plus F.I.T. house procedures and group costings.

TOUR 721 DOMESTIC AIR TARIFF AND TICKETING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: None
 Description: A beginner's course in domestic airline fare computation and ticketing procedures. Covers use of reference materials used by travel agencies and airlines in developing domestic flight itineraries, and in pricing and ticketing them. (This course should be taken concurrently with TOUR 100.)

TOUR 722 ADVANCED DOMESTIC AIR TARIFF AND TICKETING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 721
 Description: Offers advanced training in domestic airline fares, rules, regulations and procedures. Emphasis is on proper usage of reference materials. Includes fares to Alaska and Canada, and other more complicated fare constructions.

TOUR 725 INTERNATIONAL AIR TARIFF AND TICKETING.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 721; TOUR 722.
 Description: A course in international geography, international OAG, international Air Tariff rules, fare construction principles, the mileage system, higher intermediate points, one-way and circle-trip minimum fares and currency regulations. (This course is an enrichment of the Preliminary IATA Diploma material.) May be repeated once for credit.

TOUR 731 WHOLESALE TOUR OPERATIONS.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100
 Description: 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.

TOUR 732 WHOLESALE TOUR OPERATIONS—ADVANCED.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100
 Description: 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.

TOUR 750 ICTA: TRAVEL AGENCY BUSINESS MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100, 710, 715, 721, 725
 Description: 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.

TOUR 751 ICTA: MANAGING SALES PERSONNEL.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100, 710, 721, 725
 Description: Study of travel agency operations. It emphasizes procedures designed to improve travel services and client satisfaction.

TOUR 752 ICTA: MARKETING AND SALES MANAGEMENT.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100, 710, 715, 721, 725
 Description: 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.

TOUR 753 ICTA: INTERNATIONAL TRAVEL AND TOURISM.

Units (Grade Option) 3
 Class Hours 3 lecture hours/week
 Prerequisites: TOUR 100, 710, 715, 721, 725
 Description: Concentrates on geographic, social and cultural factors of international tourism and the part played by the retail travel agent in the development of tourism.

*A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.*

ZOOLOGY

ZOOL 210 GENERAL ZOOLOGY.

Units 5
 Class Hours (Fall only) 3 lecture, 2 3-hour labs/week

Prerequisites: High school Biology with grade B or better, or BIOL 110 or 130 with grade of C or better.

Description: Study of invertebrate and vertebrate animals, their organs and functions, adaptations, evolution and natural history.

*A detailed description of the following courses may be found under **Announcement of Courses**, page 53: 670 Cooperative Education; 680 Selected Topics; 690 Research Projects; 695 Independent Study; 880 Other Selected Topics; 895 Other Independent Study.*



WORD PROCESSING

See **BUSINESS/OFFICE SKILLS**

OTHER EDUCATIONAL OPPORTUNITIES AT SAN MATEO COUNTY COMMUNITY COLLEGES 107

Cañada College is part of the San Mateo County Community College District, which also operates College of San Mateo and Skyline College in San Bruno. In addition to offering comprehensive general education, vocational, transfer and remedial programs, College of San Mateo and Skyline College offer a number of special programs. Following is a list of those special programs which are not available at Cañada College.

COLLEGE OF SAN MATEO

Programs

Aeronautics
Apprenticeship
 Electrical
 Fire-Medic
 Lithographer
 Plumber
 Sheet Metal
 Sprinkler Fitter
Banking & Finance
Broadcasting Arts
Building Inspection
Consumer Arts & Science
Cosmetology
Dental Assisting
Drafting Technology
Electronics Technology
Fashion Merchandising
Filmmaking
Floristry
Fire Science
Horticulture
Humanities
Manufacturing &
 Industrial Technology
Medical Assisting
Nursing
Real Estate
Sign Language
Technical Arts & Graphics
Transportation
Welding Technology

Athletics

Men's Cross Country
Men's Football
Men's Track & Field
Women's Cross Country
Women's Basketball
Women's Softball
Women's Track & Field

COLLEGE OF SAN MATEO

1700 West Hillsdale Blvd.
San Mateo, CA 94402
(415) 574-6161M

SKYLINE COLLEGE

Programs

Automotive Mechanic Technology
Automotive Apprenticeship Program
Cosmetology
Emergency Medical Technology—I
Fashion Merchandising
General Studies
Hotel/Motel Management
National Executive Housekeeper
 Certificate
Recreation Education
Sign Language
Tagalog
Telecommunications Technology

Athletics

Men's Cross Country
Men's Track & Field
Men's Wrestling
Women's Cross Country
Women's Softball
Women's Track & Field
Women's Volleyball

SKYLINE COLLEGE

3300 College Drive
San Bruno, CA 94066
(415) 355-7000 (day)
(415) 355-6580 (evening)

FACULTY 1987 — 1988

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

- Aarons, Bernard L.** (1960)
Geology, Oceanography,
Paleontology
B.S., Pennsylvania State College
M.S., University of California,
Berkeley
- Anderson, Richard W.** (1970)
Physical Education,
Computer Science
B.A., San Jose State University
M.A., Stanford University
- Andrew, Alan** (1968)
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
- 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
- Bond, Alice L.** (1984)
Management & Training
Institute — Coordinator
B.A., M.A., San Francisco
State University
- Bowling, Clayton E.** (1976)
Basic & Applied Sciences
Division Director
B.A., M.A., Stanford University
- Branstrom, Marvin J.** (1970)
Anatomy, Physiology
B.A., M.A., San Jose State
University
Ph.D., Pacific Graduate School of
Psychology
- Bratton, Glory** (1982)
Learning Disabilities
B.A., San Francisco State
University
M.A., University of Santa Clara
M.S., San Francisco State
University
- Chan, Florence M.** (1968)
Coordinator, Library Services
B.A., University of British Columbia
M.L.S., University of California,
Berkeley
M.A., San Jose State
University
- Claire, S. Richard** (1976)
Business
A.A., College of San Mateo
B.A., San Francisco State
University
M.B.A., University of Santa Clara
- Cory, Genevieve H.** (1968)
Interior Design
B.S., University of Nevada
M.A., Ph.D., University of California,
Berkeley
- Crockett, R. Kent** (1965)
Speech, English
B.A., M.A., San Jose State
University
- Cunningham, Lois** (1971)
Social Science, Sociology
B.A., Briar Cliff College
M.A., St. Louis University
- Curtis, Robert M.** (1967)
Drama, English
B.A., M.A., San Francisco State
University
- Del Gaudio, Joan B.** (1965)
Coordinator of Counseling
B.S., Cen. Connecticut State College
M.Ed., Boston University
- Drever, Jerard D.** (1968)
Physical Education
A.A., College of San Mateo
A.B., San Jose State University
M.A., San Francisco State
University
- Eakin, J. David** (1968)
Spanish, French
A.B., M.A., University of Oregon
- Earnhardt, Eldon D.** (1969)
Anthropology — Archeology
B.A., M.A., San Francisco State
University
- Easter, Stanley E.** (1969)
Music, Counselor
B.M., Performer's Certificate
University of Rochester
Eastman School of Music
M.M.Ed., University of Oklahoma
Ed.D., Columbia University
- Egan, Philip E.** (1971)
Art
B.A., Indiana University
B.F.A., Kansas City Art Institute
M.F.A., Pennsylvania State
University
- Elkins, Floyd E.** (1969)
Business/Social Sciences
Division Director
B.A., San Francisco State
University
M.A., San Francisco State
University
Ed.D., University of Southern
California
- Eyer, Dianne M.** (1970)
E.C.E., Psychology,
Special Education,
Home Economics, Counselor
B.S., M.S., Purdue University
M.A., San Francisco State
University
- Festa, Angelo R.** (1966)
Physical Education
B.S., Michigan State University
M.S., Southern Illinois University
- Forsythe, John C., Jr.** (1957)
Biology, Counselor
A.A., College of San Mateo
A.B., M.A., Stanford University
- Friesen, John B, Jr.** (1963)
Humanities Division Director
A.B., M.A., University of California,
Berkeley
- Gavazza, Steven D.** (1981)
Computer Science, Mathematics,
Engineering
B.S., Stanford University
M.A., University of California,
Berkeley
Ph.D., Stanford University
- George, Rosemary** (1974)
Library
B.A., San Francisco State
University
M.L.S., San Jose State University
- Giuntoli, Mervin A.** (1966)
Biology, Zoology
B.A., M.A., San Jose State
University
- Glessing, Robert J.** (1968)
Journalism, English
B.A., Marquette University
M.A., University of California,
Berkeley
- Gray, Ella Turner** (1969)
Director, Special Programs
& Services
B.S., Southern University,
Louisiana
M.S., University of Nebraska
- Greenalch, John H.** (1977)
Vice President
B.A., St. Mary's University
S.T.B., St. Mary's University
S.T.L., St. Mary's University
M.Ed., Duquesne University

- Griffin, Irene F.** (1964)
Drama
A.B., Barnard College
A.M., Stanford University
- Guerrero, Jesse** (1976)
Registrar
B.A., M.A., San Jose State University
- Gunderson, Peter K.** (1973)
Geography, Tourism
B.S., Michigan State University
M.A., Wayne State University
- Hairston (Heringer), H. Grace** (1969)
Business
B.A., South Carolina State College
M.A., San Jose State University
Ed.D., Nova University
- Harrington, Joyce M.** (1969)
Student Health Services -
College Nurse
R.N., Providence School of Nursing
B.S.N.E., Seattle University
M.S., University of California, San Francisco
- Harris, Donald C.** (1969)
English, Spanish
B.A., Howard University
M.A., San Francisco State University
- Henry, Amy** (1968)
English
A.B., Southern University
M.A., North Carolina College
- Hergert, Loretta J.** (1969)
Director of Instructional Resources
B.S., M.S., University of Colorado
Ph.D., University of Utah
- Hetrick, Jane A.** (1980)
Program Specialist for the Handicapped
B.A., University of California, Los Angeles
M.A., University of Santa Clara
- Hinojosa, Aida** (1975)
English
A.A., Metropolitan J.C.
B.A., University of Missouri
M.A., University of Missouri
- Hoffman, Craig R.** (1965)
English
B.A., University of California, Berkeley
M.A., San Francisco State University
- Holle, Fredric A.** (1968)
Art
B.A., M.A., San Diego State University
- Hurley, Gale E.** (1968)
Business
A.B., San Jose State University
M.A., San Francisco State University
- Ienni, Philip C.** (1969)
Music
B.S., M.S., Juillard School of Music
- Jeppson, Joseph** (1963)
History, Law
B.S., LL.B., J.D., University of Utah
A.M., Stanford University
Ph.D., University of California, Berkeley
- Katz, Marlene** (1964)
Business
B.S., M.S., Western Illinois University
Ph.D., Golden Gate University
- Kenney, William C.** (1968)
English, Film
A.A., College of San Mateo
A.B., Stanford University
M.A., San Jose State University
- Keys, Elijah James** (1969)
Speech, English, Counselor
B.S., University of Minnesota
M.A., San Francisco State University
- Kirwin, Albert** (1975)
Office Related Skills
- Le Bow, Diane** (1968)
English
A.B., Douglas College (Rutgers)
M.A., University of California, Berkeley
- Lewis, Eileen L.** (1974)
Chemistry, Physics
B.S., M.S., Texas A & M University
- Loughry, Alice P.** (1970)
Home Economics
B.S., University of Maryland
M.S., New York State College, Cornell University
- MacDonald, James R.** (1984)
Electronics
B.S., University of California, Davis
- Marchi, Joseph J.** (1968)
Counseling
B.A., San Francisco State University
M.A., Columbia University Teachers College
- McCarthy, Barbara** (1981)
Adaptive Physical Education
B.A., M.A., San Francisco State University
- McGill, Sally J.** (1971)
Nutrition, Foods & Dietetics
B.S., University of Oklahoma
M.P.H., University of California, Berkeley
- McNamara, Cheryl J.** (1968)
Physical Education
B.A., San Jose State University
M.A., San Francisco State University
- Meek, Austen B., Jr.** (1968)
Mathematics
B.A., San Jose State University
M.A., Bowdoin College
- Mendoza, Salvador** (1984)
Counseling, Coordinator, English Institute
B.A., San Diego State University
M.A., Boston University
M.A., Middlebury College
- Messner, Gerald M.** (1964)
English
A.B., Stanford University
M.A., California State University, Los Angeles
- Miller, Lewis D.** (1971)
Computer Science, Engineering, Mathematics, Physics
A.B., University of California, Berkeley
M.A., San Jose State University
Ph.D., Stanford University
- Moore, Nancy H.** (1973)
Radiologic Technology
B.A., M.S., San Francisco State University
- Nicolopoulos, Samuel J.** (1968)
Physical Education
A.A., College of San Mateo
B.A., San Jose State University
A.M., Stanford University
- Norman, Timothy H.** (1968)
Mathematics
B.A., Illinois Benedictine College
M.S., University of Notre Dame
- O'Neil, Philip J.** (1986)
Tourism
- Owyang, Walter M.** (1970)
Psychology
A.B., University of California, Berkeley
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- Padron, Virginia** (1977)
Counselor,
English Institute
B.A., M.A., San Jose State
University
- Peña, June W.** (1969)
College Nurse
B.A., San Francisco State
University
M.S., University of California,
San Francisco
- Plunkett, Charles R.** (1965)
English
A.A., College of San Mateo
A.B., Stanford University
M.A., San Francisco State
University
- Preston, Jack** (1984)
Computer Science, Mathematics
B.A., Clark University
M.A., San Francisco State
University
- Reller, Theodore L., Jr.** (1968)
Political Science
A.B., M.A., University of
California, Berkeley
- Rodriguez, Ernesto** (1970)
College Psychologist
A.B., M.A., San Francisco
State University
Ph.D., Wright Institute
- Sandler, Marie H.** (1974)
E.C.E./Psychology
B.S., M.S., Florida State
University
- Sanfilippo, Rudy A.** (1976)
Sociology, Management
B.A., M.A., San Jose State
University
- Schey, Robert E.** (1970)
Coordinator of Cooperative
Education
B.A., M.A., San Francisco
State University
- Schoenky, Mary A.** (1963)
Counseling, Career Classes
R.N., College of St. Scholastica
B.S., University of Minnesota
M.N., University of Washington
- Sitton, Carl V.** (1968)
Music
B.M., Texas Wesleyan
College
M.A., Mills College
- Sonntag, Lela M.** (1970)
Counseling
B.A., M.A., San Jose State
University
M.A., University of LaVerne
- Sorensen, Lenora H.** (1975)
Tourism
B.A., Texas A & I
M.A., George Washington
University
- Stegner, Paul E.** (1969)
Psychology, Computer Science
B.S., Pennsylvania State
University
M.A., California State
University, Fresno
Ph.D., Washington State
University
- Steidel, James N.** (1971)
History, Ethnic Studies
B.A., Kenrick College
M.A., Ph.D., University of
Southern California
- Stein, Pamela D.** (1969)
English
A.B., M.A., University of
California, Berkeley
- Stiff, Robert** (1961)
President
A.B., M.A., San Francisco
State University
- Stoney, James M.** (1959)
Microbiology, Biology
B.A., M.A., San Francisco
State University
- Sutherland, Kenton** (1970)
English, English Institute
A.A., Compton College
B.A., University of the Americas
M.A., University of California,
Los Angeles
- Swenson, Jack S.** (1964)
English
B.A., University of Minnesota
M.A., San Francisco State
University
- Szabo, Rosalee** (1969)
English
B.S., Cornell University
M.A., University of Rochester
- Thein, Van Raymond** (1970)
Music
B.A., M.A., San Francisco
State University
- Tovissi, Joseph A.** (1965)
Mathematics, Counselor
B.S., Kent State University
A.M., Stanford University
M.S., Purdue University
- Trugman, Ronald E.** (1973)
Business/Computer
Applications
B.A., Long Beach State University
M.S., M.S.Ed., Ph.D., University of
Southern California
- Vial, Silvano A.** (1964)
Physical Education
B.S., University of Idaho
A.M., Stanford University
- Villarreal, Gilberto S.** (1968)
Spanish, English Institute
B.A., San Jose State
University
M.A., Stanford University
Ph.D., University of Colorado
- Vogel, Irwin** (1977)
Ophthalmic
B.P.S., Empire State College
- Weidman, Jane C.** (1975)
English
A.B., University of Oregon
M.S., California State University,
Hayward
- Welles, Samuel Paul, Jr.** (1970)
Biology
B.S., M.S., Ph.D., University
of California, Berkeley
- Westover, Ross W.** (1962)
Physical Sciences
B.S., Brigham Young University
M.S., Syracuse University
- Workman, Gilbert B.** (1968)
History
B.A., Yale University
M.A., San Jose State
University
- Young, Frank C. C.** (1969)
Philosophy
B.A., University of Florida
M.A., San Francisco State
University

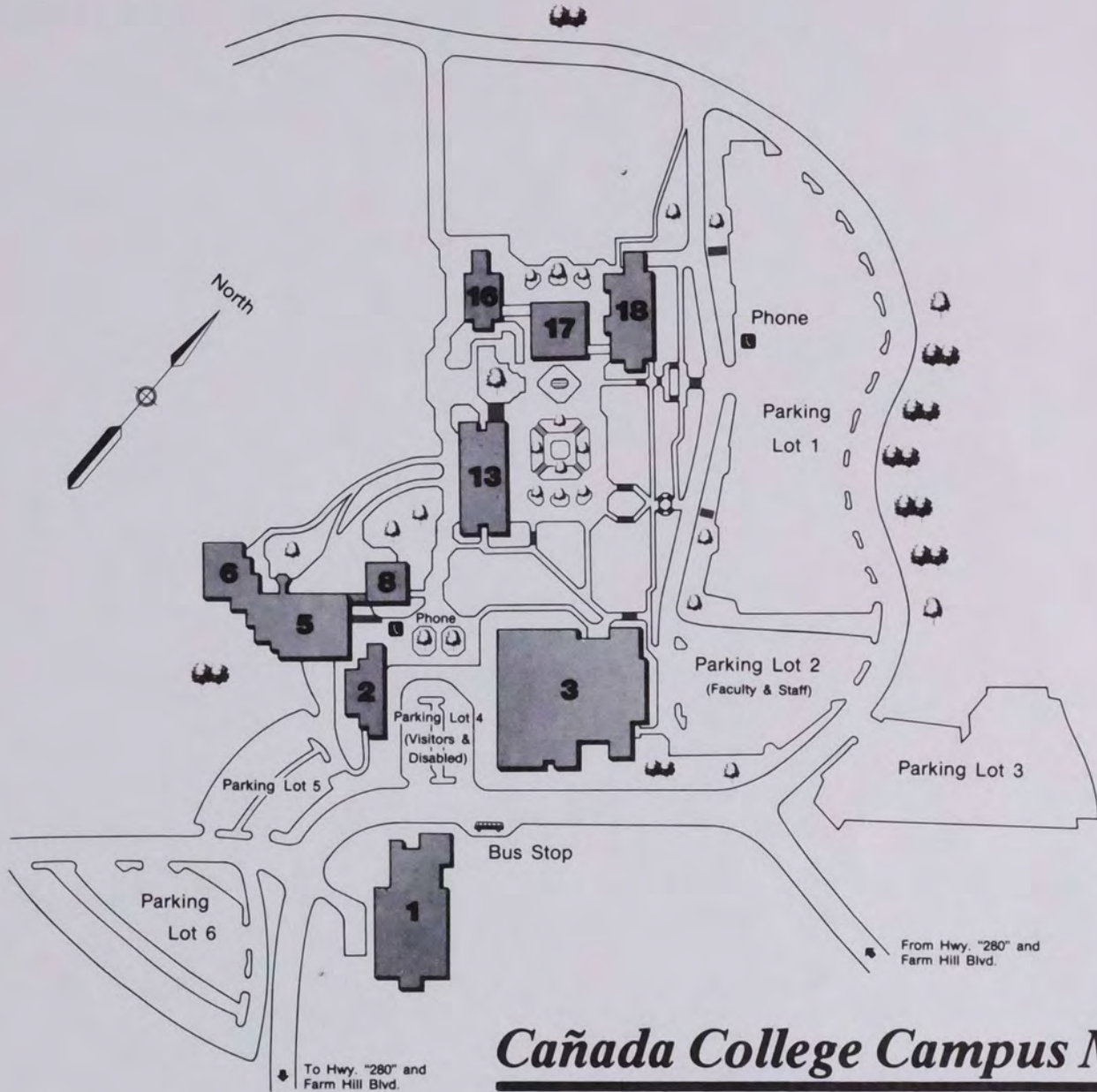
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Cañada College

4200 Farm Hill Boulevard
 Redwood City, California 94061
 (415) 364-1212 (day)
 (415) 364-0262 (evening)



Cañada College Campus Map

Building - Room	
Administration	8
Admissions & Records	8 - Lower Level
Associated Students	Cafeteria
Basic & Applied Science Division Office	18 - 109
Bookstore	2
Business/Social Sciences/ Training Division	13 - 103
Business Skills Lab	13 - 217
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