
CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT

CHABOT COLLEGE
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HAYWARD, CALIFORNIA 94545
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CHABOTCOLLEGE.EDU](http://www.chabotcollege.edu)
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TELEPHONE: (925) 485-5236

**THIS CATALOG IS AVAILABLE IN ALTERNATE FORMAT. CONTACT THE DISABLED
STUDENT RESOURCE CENTER, BUILDING 2400 OR CALL 510-723-6725.**

CHABOT COLLEGE

SERVING THE . . .

Castro Valley Unified School District
Dublin Unified School District
Hayward Unified School District
Livermore Valley Joint Unified School District
New Haven Unified School District
Pleasanton Unified School District
San Leandro Unified School District
San Lorenzo Unified School District
Sunol Glen Elementary School District

Robert E. Carlson
President Chabot College



Welcome to Chabot College!

For more than 40 years, Chabot has been meeting the educational needs of the East Bay's growing, diverse community. With its excellent programs and services, it has earned a reputation as one of the top community colleges in the state.

We offer more than 100 programs of study to help you reach your goals. You can begin a new career, learn new skills to upgrade your present job, prepare for transfer to a four-year college, or just take an interesting course to enrich your life.

Because of the varied needs of the population, we work hard to fit college into your schedule. We offer classes in the evening and on weekends, and we offer classes on television and on-line. We have a program especially designed for working adults, one geared toward the 55 and older crowd, and courses specified for women re-entering the workforce.

So look through this catalog to find information on all of our academic programs and our student support services. We think you'll find something that will change your life. After all, that's why we're here.

Robert E. Carlson, Ed.D.
President

BOARD OF TRUSTEES



Back row: (l to r) Alison Lewis, Gary Craig, Gary Schwaergerle, Donald “Dobie” Gelles, Barbara Mertes. **Front row:** (l to r) Susan Cota, Isobel Dvorsky, Arnulfo Cedillo.

The Chabot-Las Positas Community College District is governed by a Board of Trustees that is responsible for all policy decisions. Those serving on the board in 2002 are Isobel Dvorsky, president; Dr. Arnulfo Cedillo, secretary; Gary R. Craig, Donald L. “Dobie” Gelles, Dr. Alison Lewis, Dr. Barbara Mertes, and Gary Schwaergerle.

Dr. Cedillo has been a member of the board since 1985, representing Trustee Area 3. He resides in Union City.

Mr. Craig was first elected to the board in 1985 and represents Trustee Area 6. He resides in Hayward.

Mrs. Dvorsky has represented Trustee Area 2 since her first election to the board in 1985. She resides in San Leandro.

Donald L. “Dobie” Gelles was elected in 1998 to represent Trustee Area 4. He resides in Castro Valley.

Dr. Lewis has been a member of the board since 1991, representing Trustee Area 1. She resides in Hayward.

Dr. Mertes was first elected to the board in 2000, representing Trustee Area 7. She resides in Livermore.

Mr. Schwaergerle was elected in 2000, representing Trustee Area 5. He resides in Pleasanton.

TRUSTEES EMERITI

E.J. “Jay” Chinn*	1961-1985	Fred M. Duman.....	1967-1991
Elva M. Cooper	1987-1996	Edward E. Martins.....	1961-1967
Ann H. Duncan	1971-1984	Fredrick T. Sullivan	1961-1971
Dorothy S. Hudgins	1967-1987	William A. Tenney	1961-1967
Lawrence R. Jarvis*	1975-1987	L. Arthur Van Etten*	1961-1985
James S. Martin	1969-1975	Margaret R. Wiedman	1977-1989

* Deceased

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CALENDAR 2003-2004

FALL SEMESTER 2003

JULY

S	M	T	W	T	F	S
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6	7	8	9	10	11	12
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AUGUST

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31						

SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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21	22	23	24	25	26	27
28	29	30	31			

Orientation Week	
August 11,12.....	New Faculty Orientation
August 13.....	District Convocation
August 14.....	Staff Development Day
August 15`.....	College/Division Day
August 18.....	INSTRUCTION BEGINS
August 23.....	Instruction Begins Saturday Classes
August 30.....	No Saturday Classes
September 1*.....	Labor Day-Holiday
September 2.....	Last Day to Withdraw from Classes with a No-Grade-of-Record
September 3.....	CENSUS DAY
September 19.....	Deadline for Petitioning to Complete Classes on a "Credit/No Credit" Basis
October 15.....	DEADLINE TO APPLY FOR GRADUATION END OF FALL SEMESTER 2003
November 10.....	Last Day to Withdraw from Class with Automatic "W"
November 10*.....	Veterans Day-Holiday No Instruction
November 26*, 27*, 28*, 29**.....	Thanksgiving Recess- No Instruction
December 13.....	LAST DAY OF CLASSES
December 15-20.....	FINAL EXAMINATION PERIOD AND FILING OF GRADES
December 20**.....	Final Examination Saturday Classes
December 22-January 19.....	Semester Recess No Instruction

*Holiday-All Employees
**Saturday Only Classes

NOTE:

For deadline dates for short term and late start classes, consult instructor, Admissions and Records, or go to website www.chabotcollege.edu.

CALENDAR 2003-2004

SPRING SEMESTER 2004

JANUARY						
S	M	T	W	T	F	S
				1	2	3
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY						
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29						

MARCH						
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APRIL						
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MAY						
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23	24	25	26	27	28	29
30	31					

JUNE						
S	M	T	W	T	F	S
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

January 20.....	INSTRUCTION BEGINS
January 24**.....	Instruction Begins Saturday Classes
February 8.....	Last Day to Withdraw from Classes with a No-Grade-of-Record
February 9.....	CENSUS DAY
February 13*, 14**.....	Lincoln's Day-Holiday-No Instruction
February 16*.....	Washington's Day-Holiday-No Instruction
February 20.....	Deadline for Petitioning to Complete Classes on a "Credit/No Credit" Basis
April 5-10.....	Spring Break-No Instruction
TBA.....	Flex Day
April 12.....	Last Day to Withdraw from Classes with Automatic "W"
April 16.....	DEADLINE TO APPLY FOR GRADUATION END OF SPRING SEMESTER 2004
May 15**.....	Last Day of Saturday Classes
May 21.....	LAST DAY OF CLASSES
May 22**.....	Final Examinations Saturday Classes
May 24-28.....	FINAL EXAMINATION PERIOD AND FILING OF GRADES

*Holiday-All Employees
 **Saturday Only Classes

NOTE:

The 2004-2005 calendar will appear in a catalog addendum to be published spring 2004.

NOTE:

For deadline dates for short term and late start classes, consult instructor, Admissions and Records, or go to website www.chabotcollege.edu.

INFORMATION DIRECTORY

TELEPHONE (510) 723-6600

	TELEPHONE NUMBER		TELEPHONE NUMBER
PRESIDENT	723-6640	Dean, Business and Workforce Development.....	723-6652
Institutional Planning		Business Sciences (Accounting, Business Administration, Marketing, Real Estate, Work Experience)	
Program Review		Technology and Engineering (Apprenticeship, Automotive Technology, Inspection, Machine Tool Technology, Welding Technology)	
Institutional Research		VTEA	
Marketing and Community Relations		Vocational Education (CCCAOE, Advisory Committees)	
Grant Development		Apprenticeships	
College Foundation		Economic Development	
Alumni Association		Tech Prep	
Staff Development		2+2 Programs	
Vice-President, Business Services.....	723-6618	Dean, Health and Natural Sciences.....	723-6897
Fiscal Services		Health Sciences (Dental Hygiene, EMT, Paramedics, Health, Health Information Technology, Medical Assisting, Nursing, Nutrition)	
Budget Development and Management		Technology (Fire Service Technology)	
Purchasing Control		Science (Astronomy, Biological Sciences, Chemistry, Geology, Physics)	
College Bookstore		Dean, Language Arts and Humanities.....	723-6805
College Box Office		Humanities (Architecture, Art, Creative Arts, Film, Foreign Language, Graphic Design, Humanities, Interior Design, Music, Philosophy, Photography, Religious Studies, Theater Arts)	
College Bursar		Performing Arts Center	
College Master Calendar		Language Arts (English, Speech, Mass Communications, ESL, Learning Skills)	
Facilities Rental		Dean, Mathematics, Computer Sciences, and Engineering	723-6864
College Mailroom		Business (Computer Application Systems)	
College Maintenance and Operations		Science/Math (Mathematics, Computer Science)	
College Capital Construction		Technology and Engineering (Design Technology, Electronics and Computer Technology, Engineering, Engineering Technology)	
College Switchboard		Dean, Physical Education, and Athletics	723-7202
Director, Campus Safety.....	723-6771	Physical Education (Athletics, Dance, P.E.)	
Manager, Bookstore.....	723-6925	Dean, Social Sciences and Community Education	723-6669
Assistant Manager, Bookstore.....	723-6925	Social Sciences (Administration of Justice, Anthropology, Early Childhood Development, Economics, Geography, History, Political Science, Psychology, Recreation and Leisure Services, Sign Language, Sociology)	
ACADEMIC SERVICES		QUEST/Gerontology	
Vice-President.....	723-6626	PACE	
Dean, Information Services.....	723-6755	ISLS Program	
Instructional and Administrative Computing		Community Education	
Technology Services (Intranet, Webmaster)		Continuing Education	
Library and Learning Resources (Library Studies)			
HUB			
Tutorial Services (Tutoring)			
Distance Education Center			
Director, Media Services.....	723-6756		
Television Station			
Publication Graphics			
Duplicating Center			

INFORMATION DIRECTORY

	TELEPHONE NUMBER
STUDENT SERVICES	
Vice-President	723-6744
Dean, Counseling.....	723-6717
Counseling (Psychology Counseling)	
Transfer Center	
Course and Program Articulation	
Matriculation	
Daraja Program	
Student Outreach	
International Students	
Director, Admission and Records.....	723-6703
Student Online Services Center (SOS)	
Special Student Admission	723-6715
Veterans Services.....	723-6910
Director, Financial Aid.....	723-6714
Dean, Special Programs and Services.....	723-6916
EOPS/CARE	
DSP&S	
CalWORKS	
Puente Program	
AmeriCorps/Teacher Prep	
Tutorial Center	
Employment/Career Services Center	
Director of Student Life.....	723-6914
Student Activities	
Associated Student Government	
ASCC Scholarship Program	
Clubs and Organizations	
Flea Market	
Off-Campus Housing	
Director, Children's Center.....	723-7483

	TELEPHONE NUMBER
DISTRICT OFFICE	
(Use Area Code 925 for telephone numbers with a 485 prefix.)	
BUSINESS OFFICE/FISCAL SERVICES	
Vice Chancellor	Roy V. Stutzman 485-5203
Accounting.....	485-5224
Buyer	Annie Harris 485-5205
Controller.....	Mazie Brewington 485-5231
Maintenance and Operations.....	Tim Nelson 723-6648
CHANCELLOR.....	485-5206
(Board of Trustees, Operation of District)	
District Director, Public Information and Marketing	Jennifer L. Aries 485-5215
CHABOT-LAS POSITAS	
COLLEGES FOUNDATION.....	485-5214
ECONOMIC DEVELOPMENT AND CONTRACT EDUCATION	
District Dean.....	Leslie Roe 485-5212
CHIEF MANAGEMENT	
INFORMATION OFFICER.....	723-6621
PERSONNEL OFFICE	
Personnel Information.....	485-5236
Human Resources Director	485-5235
PLANNING, DEVELOPMENT AND RESEARCH	
Vice Chancellor.....	485-5204

THE CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT

HISTORY

The Chabot-Las Positas Community College District is in its 40th year of providing educational opportunities to residents of the Bay Area.

The formation of a "junior college district" was approved by the voters on January 10, 1961, and the first board of trustees elected on April 18, 1961. Chabot College opened for classes on September 11, 1961, on a seven and one-half acre temporary site in San Leandro with an enrollment of 1,163 students. The 94-acre Chabot College site on Hesperian Boulevard in Hayward opened for its first day of classes on September 20, 1965.

Chabot College primarily serves residents of Alameda County in the East Bay area, including the district communities of Castro Valley, Hayward, San Leandro, San Lorenzo and Union City.

The site for Las Positas College on 147 acres in Livermore was purchased in October, 1964, and the college-known then as Chabot College's Valley Campus-opened for instruction on March 31, 1975, in four buildings designed for 600 students.

The institution was designated California's 107th community college by the California Community Colleges Board of Governors in October, 1988.

Las Positas College primarily serves residents of Alameda County and a portion of Contra Costa County in the Tri-Valley area, including the district communities of Dublin, Livermore, Pleasanton and Sunol.

The 2002 fall semester registration totaled 22,000 day, evening and Saturday students at Chabot College and Las Positas College. The district serves 18 public high schools and four parochial schools.

ACCREDITATION

Chabot College is accredited by the Western Association of Schools and Colleges. Chabot College is also accredited by the Council on Dental Education, American Dental Association, the Committee on Allied Health Education and Accreditation in collaboration with the American Hospital Health Information Management Association and the American Medical Assisting Association. The Program in Nursing is accredited by the California Board of Registered Nursing. The college is approved by the California State Department of Education and is a member of the American Association of Community and Junior Colleges and the Community College League of California.

Appropriate courses are fully accepted on transfer by the University of California, the state college and university system, and by private four-year colleges and universities.

The College is approved for the training of veterans and for the education of foreign students.

BOARD PRIORITIES 2002-2004

The Chabot-Las Positas Community College District's Board of Trustees will work as an ethical and cohesive team in supporting the Chancellor's maintenance of a fiscally sound and creative learn-

ing environment for students and a productive and rewarding environment for staff. The Board will judge its effectiveness by:

1. Adhering to the Board policies that require regular and consistent evaluations in order to improve student and staff performance;
2. Requiring all Board reports to be well documented, timely, and thoughtfully prepared with all pertinent information so that Board Members will have sufficient information upon which to make sound decisions;
3. Encouraging and supporting risk-taking challenges in program development and delivery;
4. Keeping informed on State and Federal trends and policies affecting community colleges' operations;
5. Supporting community college partnerships with business, industry, and government that will benefit student and staff development; and
6. Operating in an open, honest, and ethical decision-making environment.

CHABOT COLLEGE VISION AND MISSION STATEMENTS

VISION

Chabot College commits to providing educational excellence. This commitment is reflected in a comprehensive range of educational programs and services that meets the needs of its diverse communities.

MISSION

Chabot College is a comprehensive community college that provides quality educational opportunities to all individuals who seek to enhance their knowledge and to improve their skills. The College offers both traditional and non-traditional methods of learning and student support services and activities that foster student success and enrichment. The College encourages sensitivity to all cultures, respects diversity among students, faculty, and staff, and is responsive to the demands of rapidly changing in our global community. In addition, the College provides resources and programs that help students develop a sense of civic and social responsibility and a commitment to life-long learning.

To accomplish this mission, the College provides the following academic programs:

- Technical and career-vocational education programs
- Transfer education programs to four-year universities
- General education
- Basic skills instruction
- English as a Second Language programs
- Community and Continuing Education programs

CHABOT COLLEGE STRATEGIC PLANNING THEMES

Institutional objectives were developed through a college-wide strategic planning process that was guided by the Institutional Planning and Budget Council (IPBC). Initial college-wide workshops and meetings in Fall 2000 led to the identification of major planning themes and goals. During 2002-03, "theme teams," composed of a cross-section of members of the college commu-

nity, identified issues facing the college and proposed objectives and activities under each theme. These objectives are reviewed and prioritized each year by the IPBC.

THEME A: Excellence in Education. Focus on Teaching/Learning.

THEME B: Creation of a Healthy College Community. Focus on Valuing People.

THEME C: Community Service, Partnerships, and Collaboration. Focus on Development of a College Without Boundaries.

THEME D: Visioning, Leading and Communicating. Focus on Managing for Innovation.

THEME E: Strategic Planning for Continuous Improvement. Focus on Future and Mission.

THEME F: Supporting Operations of the College. Focus on Efficient Services to Core Operations.

THEME G: Support for Student Access, Equity and Success. Focus on Student Development.

CHABOT COLLEGE EDUCATIONAL PHILOSOPHY AND OBJECTIVES STATEMENT

Chabot College is dedicated to serving the community by providing an excellent learning-teaching environment which will enable all students to achieve fulfilling and productive lives.

The College believes in strong cooperative working relationships with other institutions of higher learning and local school districts, and with business, government, and industry.

The College supports the basic tenet of our democracy that all individuals must be given equal opportunity, to prepare themselves to assume the privileges and responsibilities of self-governance in a rapidly-changing world where philosophical values and political practices may be in conflict.

The College believes strongly that all individuals should be afforded the opportunity to reach their highest potential as human beings and as responsible members of society. It is through these principles that both the individual and community benefit.

The College's faculty and staff believe strongly in the practice of ethical behavior and in the encouragement of honest thought based on critical analysis and independent thinking. We believe such qualities can best be attained in an atmosphere where the freedom to create and to explore ideas is accepted.

The College believes that the qualities of an educated person include knowledge, competency, concern for the ecological environment, dedication to learning, kindness, and respect for the dignity of diverse peoples and cultures. An educated person is prepared to make responsible decisions as result of problem-solving and critical analysis.

Chabot College believes that all students should have the opportunity to participate actively in the educational process, make significant choices, and achieve increasing self-direction.

We believe that the College should encourage and support creativity and innovation emanating from a diverse faculty whose values reflect those of the community college mission and whose presence and leadership serve as models for students.

Chabot College is a higher education institution which provides appropriate educational programs, learning resources, and student services to a culturally rich and ethnically diverse student population. The College remains sensitive to the varying interests and physical abilities of students and provides appropriate and special programs for those who have learning differences or difficulties.

Adhering to the basic requirements of the Community College Mission as outlined in AB1725, Chabot College provides the following programs:

- *Technical and career-vocational education programs*
- *Transfer education programs to four-year universities*
- *General education*
- *Basic skills instruction*
- *English as a Second Language programs*
- *Community and continuing education programs*

It is upon these principles that Chabot College outlines the College's objectives:

- *To assist students to become active, responsible individuals in our democratic society through a program of liberal arts education*
- *To prepare students for employment through career-vocational education programs*
- *To prepare students for transfer to four-year colleges and universities*
- *To provide our diverse student population with the basic skills needed for success in career-vocational education, transfer, and English as a Second Language programs*
- *To provide students with opportunities to explore their abilities and interests*
- *To provide our diverse student population with opportunities to develop an understanding of the contributions of an increasingly complex society, and through this awareness, to develop a greater understanding and respect for one another*
- *To provide students with co-curricular and extra-curricular experiences which will promote their growth and intellectual development*
- *To assist students through the process of matriculation, counseling and guidance, in attaining a better understanding of career opportunities*
- *To provide opportunities for employed persons to increase their job competencies in order to prepare them for positions of increased skill and responsibility and/or to extend their continuing education*
- *To assist the economic life of the community through cooperative working partnerships with business, government, and industry*
- *To support programs that enrich the cultural life of the entire community*

STATEMENT OF THE OBJECTIVES OF THE GENERAL EDUCATION PROGRAM

General education programs have come to be accepted as a significant part of the program of studies in American colleges and universities. The term general education refers to a program of studies which introduces the student to areas of study that mature the mind, enrich family and widen social and ethnic relationships, and develop skills and aptitudes that can aid the student in furthering personal and social usefulness, and to live in the environment as a thinking and contributing citizen.

It is a program, furthermore, that activates the imagination, deepens the perspective of life, and gives life direction and purpose. The general education program is eminently well suited to a democracy where every person is eligible to enjoy the cultural riches of the world and to become a useful citizen in dealing with local, national and world economics, cultural, social and political problems.

EDUCATIONAL PROGRAM

In keeping with its Philosophy and Objectives, Chabot College offers a two-year curriculum designed to (1) permit students to transfer typically as juniors, to leading four-year colleges and universities; (2) provide technical training to prepare students for employment in occupations requiring two years of study or less, or to assist persons already employed; (3) make continuing education available to residents desiring to increase their knowledge and skills. (A list of Degree Programs and Transfer Majors may be found on pages 24-26). Special courses and instructional services are also available to students with ethnic interests.

DEGREES AND CERTIFICATES

Chabot College is authorized by the Board of Governors of the California Community Colleges to confer the *Degree of Associate in Arts or Associate in Science* upon those students who complete the minimum of 60 semester units with a grade-point average of 2.0 or better and meet the graduation requirements as set forth on pages 17-20.

The *Certificate of Achievement* is awarded upon successful completion of a minimum of 20 semester units, with a grade-point average of 2.0 or higher.

The *Certificate or Certificate of Completion* is awarded upon successful completion of a minimum of 10 semester units, with a grade-point average of 2.0 or higher.

Students may develop an Individual Occupational Major, by working out the program with a counselor, for approval by the Division Dean of the Occupational Major and the Dean of Counseling.

Application for the Associate in Arts, Associate in Science and Certificates requires the student to submit a petition in the admission and records office by the appropriate date. (Students should refer to the College Calendar to verify dates.)

CITIZENS ADVISORY COMMITTEES

Citizens' Advisory Committees, composed of leaders in business, industry, labor, public agencies, and the professions are working with the administration to develop curricula.

The Committees assure that instructional programs are developed in accordance with the needs of business, industry and the professions in the District.

The Committees advise the colleges on the need or desirability of a particular educational program or course, content of such programs or courses, performance standards, equipment and facilities, selection of students, placement of students, technical information evaluation, teacher recruitment and financial and legislative matters.

The following committees presently operate: Accounting, Administration of Justice, Architectural, Automotive, Computer Applications Systems, Dental Health Programs, Drafting, Early Childhood Development, Electronics, Engineering, Fire Service Technology, Graphic Communications, Health Information Technology; Inspection, Interior Design, Machine Tool and Manufacturing, Medical Assisting, Nursing, Prehospital Care, Radio and Television Broadcasting, Real Estate, Service to Seniors, Welding. As new needs are identified, other committees will be appointed to assist the college in developing appropriate programs.

CHABOT COLLEGE

Chabot College offers students a unique educational opportunity. The facilities have been planned to take advantage of new approaches to learning, to facilitate the development of experimental programs and to be adaptable to changes brought about by new technology.

As the college's population has grown since its opening in 1961, many modifications have taken place to accommodate the changing curriculum and to help ensure students' academic success. Students can now go to the Tutorials Center or to the WRAC Center (Writing and Reading Across the Curriculum) for additional help with their studies. A newly renovated Disabled Student Resource Center offers high-tech equipment and personal counseling. The Employment and Career Services Center helps students find jobs and look toward their future. A new state-of-the-art computer lab in the Library has more than 120 Internet-ready computers available to students.

The Media Center contains a television studio equipped to send closed circuit educational television programs to many classrooms throughout the campus and to send programming over cable television.

Work was completed on a \$6 million project to remove architectural barriers to disabled students which includes the construction of elevators, and installation of new doorknobs and electric doors, and renovation of 70 restrooms.

Chabot's newest facility is the 40,000-square-foot computer and science building. Installation of indirect lighting and completion of state-of-the-art ballasts were completed in the Library. A 27,000-square-foot addition to the Ceramic and Sculpture labs was recently completed.

The campus has a main lecture hall seating 160 persons and lecture halls are provided in many of the other buildings. Each faculty office building contains seminar rooms which are divisible for conferences and meetings.

Other buildings house classrooms and laboratories for social science, language arts, humanities, international language, art,

music, drama, physics and mathematics and physical education. Additional buildings house the student center, bookstore, and faculty and administration offices.

Special features include a 1,500-seat Performing Arts Center, planetarium, two gymnasiums, five athletic fields, 12 tennis courts, indoor handball and racquetball courts, new strength-training facilities, a 400-meter track, and a state-of-the-art fitness center.

The 1,500-seat Performing Arts Center was financed jointly under an agreement with the Hayward Area Recreation and Park District.

LIBRARY

The Chabot College Library is located in Building 100 and offers an extensive range of services to students, faculty, and staff. Print, non-print and electronic resources are available. Remote access to many of these resources, including the catalog of books and audiovisual materials and the magazine, journal and newspaper databases, is available via the Library's web page (www.chabotcollege.edu/library). Contact the Reference Desk for details 510-723-6764. The Library has courses in library research skills and Internet skills. The librarians, in collaboration with instructional faculty, offer orientations tailored to specific class needs. There is an electronic classroom for this purpose. Additionally, the Library has a large student computer lab, an audiovisual center, and group study rooms.

MEDIA SERVICES CENTER

The center provides multimedia products and services designed to support and enhance faculty instruction, class projects, and campus events. Some of the services provided are graphic arts, desktop publishing, offset printing, digital reproduction, media installation and circulation, and audiovisual system maintenance.

DISTANCE EDUCATION

Distance Education (DE) is an alternative mode of course delivery which provides students a flexible means of receiving education. At Chabot College, DE courses are presented in online, telecourse, CD-ROM, and multimedia formats.

OCCUPATIONAL WORK EXPERIENCE EDUCATION

The Occupational Work Experience Program enjoys a wide participation from business, industry, and all levels of Governmental agencies. The program enables students to apply their classroom instruction to related career employment for training and experience. The opportunity to examine and utilize the latest techniques, procedures, and equipment in community agencies and business firms makes the student's classwork even more functional and relevant. Close coordination and supervision by the college insures that the Work Experience Program becomes a real learning opportunity related to that area of the student's studies.

RELATED OCCUPATIONAL WORK EXPERIENCE COURSES

The plan allows students to concurrently enroll in college courses while working. The course descriptions are found on page 139.

Work Experience Education is a requirement for graduation in many of the Occupational programs at the college. Students majoring in a program requiring Work Experience should enroll in that program's Work Experience course. All other students seeking elective or transferable credit may enroll in the Occupational Work Experience Courses.

Regulations governing the operation of Work Experience Education programs require that students meet the following:

1. Pursue a planned program of Work Experience which includes new or expanded responsibilities or learning opportunities beyond those experienced during periods of previous employment.
2. Have paid or volunteer employment in a field directly related to the college major.
3. Have the approval of the instructor/coordinator.

Additionally students must meet the following:

1. Students must be enrolled in a minimum of 7 units including Work Experience.
2. Be currently enrolled in a course in their major or planned academic program which is related to the Work Experience.

Under the Program one unit of credit is granted for 5 hours of work each week to a maximum of 3 units for 15 or more hours each week. Students must also attend a one-hour weekly seminar class. A cumulative total of 16 units may be earned (including the seminar units).

Additional information may be obtained from the Work Experience Office at Chabot College.

GENERAL EXPENSES

Every effort is made by the colleges to keep student expenses as low as possible. Major costs will be for books, supplies, and enrollment fees. Students who desire to park on college parking lots must also purchase a parking permit. The total cost to a typical student for these things is estimated to be \$400 per semester or \$800 per year. Partial costs of some textbooks can be recovered by reselling them to the college bookstore. Students are encouraged, however, to retain their books for future reference. Costs for room, board, transportation, clothing, recreation, medical and dental care, phone calls, postage, and spending money must be considered as standard living expenses incurred by all college students.

FEES

Enrollment Fee: \$11.00 per unit (may be changed) per semester unit.

Nonresident Tuition: Out-of-state students are required to pay \$149.00 per semester unit.

International, Non-immigrant Visa Tuition: International students and non-immigrant aliens attending on other visa types are required to pay \$154.00 per semester unit.

Mailing Fee: Students may pay a \$3.00 mailing charge each semester. This money is used for mailing costs for the registration card, grade report and registration appointment cards.

Student Body Fee: This is an optional \$5.00 fee.

GENERAL INFORMATION

Parking Fees: Students who wish to park their vehicles on College parking lots must purchase their parking permit or a ticket for each day that parking is desired. The fee is \$20.00 per semester-4 wheel vehicle; \$10.00 per semester-motorcycle, and \$1.00 for daily parking.

Student Health Fee: Mandatory health service fee of \$12 per semester to support health services for enrolled students. Information on exemptions may be obtained from the Director of Student Life, Room 2355, Building 2300 or by calling (510) 723-6915.

Admissions and Records Fees:

Transcripts.....	\$ 3.00
On-demand transcript (includes one copy of transcript)	\$10.00
Enrollment verification.....	\$ 2.00
Replacement of lost records	\$ 2.00
Application fee for international students.....	\$100.00

FEES ARE SUBJECT TO CHANGE

At the time of publication, the Governor and State Legislature are considering action that may increase enrollment fees significantly from their current level of \$11 per unit. In addition, the Board of Trustees of the Chabot-Las Positas Community College District will be considering separately a proposal to increase the College parking fees. The College reserves the right to collect the enrollment fee increase approved by the State Legislature from all students including those who have paid fees prior to the implementation of the new rates. Updates to fee information will be made available on the College website at www.chabotcollege.edu or by contacting the Office of Admissions and Records at (510) 723-6703.



The academic and vocational programs at Chabot College reflect the diverse educational/career goals of our student population. Whether students are attending Chabot College to prepare to transfer to a four-year institution, gaining technical skills to enter a vocational field, or enriching their lives by pursuing an individualized education plan, they have the opportunity to have their efforts acknowledged by being awarded an Associate Degree, a Certificate of Achievement or a Certificate of Completion.

The program of study leading to the **Associate in Arts Degree (A.A.)** and the **Associate in Science Degree (A.S.)** has two primary components, (1) a focus of study in some field of knowledge (the major) and (2) a broad exposure to additional subject areas that are designed to prepare the student to acquire a greater understanding of the self, the physical and the social world (general education requirements). Students are eligible to receive an Associate in Arts or Associate in Science Degree after they have successfully completed an outlined program of study of a minimum of 60 semester units with a grade-point average of 2.0 or better and meet the graduation requirements as set forth on pages 17-20.

A **Certificate of Achievement** is designed to offer the student an opportunity to develop skills in a specific technical and/or vocational field. A Certificate of Achievement is awarded to those students who have successfully completed a minimum of 20 semester units of specifically approved courses, with a grade-point average of 2.0.

A **Certificate or Certificate of Completion** is designed to augment other degrees or occupational areas by targeting a very specific series of courses in the academic, vocational and/or technical field. A Certificate or Certificate of Completion is awarded to those students who have completed a minimum of 10 semester units of specifically approved courses, with a grade-point average of 2.0.

Students may develop an Individual Occupational Major, by working out the program with a counselor, for approval by the Division Dean of the Occupational Major and the Dean of Counseling.

Students earning a certificate, A.S., or A.A. degree in an Occupational/Technical area must complete a minimum of 12 units in residency at Chabot College within the degree major or certificate program. Students in articulated degree/transfer or Liberal Studies programs will need a total of 12 units of residency at Chabot College in general education, major, or elective courses.

Grades earned in non-degree-applicable courses (numbered 100-299) will not be used when calculating a student's degree applicable grade point average. No courses below the English 1A requirement are degree applicable.

CATALOG REQUIREMENTS AND CONTINUOUS ATTENDANCE

A student in continuous attendance in regular semesters may, for the purpose of meeting degree or certificate requirements, elect to meet the requirements in effect at any time during their period of continuous attendance at Chabot-Las Positas Community College District.

Graduation requirements are listed in the catalog. If a break in attendance occurs before graduation requirements have been met, the graduation requirements which shall apply to the student are those listed in the catalog in force at the time continuous studies are resumed.

Continuous attendance is defined as enrollment in at least one semester or two quarters during the academic year on a continuing basis without a break of more than one semester excluding summer session. Any academic record symbol (A-F, NC, I, IP, RD, W) shall constitute enrollment. A student who drops out for one academic year or more is considered to be a returning student.

The Chabot-Las Positas Community College Catalog Requirements and Continuous Attendance policy does not necessarily apply to requirements in effect at transfer institutions. Courses applicable toward major and General Education requirements may change. Students who are planning to transfer are advised to consult the catalog of the university to which they will transfer.

GRADUATION REQUIREMENTS

REQUIREMENTS FOR THE DEGREE OF ASSOCIATE IN ARTS

A student is eligible for graduation with the ASSOCIATE IN ARTS DEGREE after completing all requirements for the **MAJOR** plus electives to total 60 semester units of work with a 2.0 cumulative average or better. The General Education Requirements for the Associate in Arts Degree are listed below:

I. ASSOCIATE IN ARTS DEGREE (A.A.)

A. LANGUAGE AND RATIONALITY:

English Composition

(Language and Rationality) **Complete a minimum of 6 SEM UNITS**

Choose 3 units from 1.1. AND 3 units selected from 1.2.

- | | |
|------------------------|--------------------------|
| 1.1. (minimum 3 units) | 1.2 (minimum of 3 units) |
| English 1A or 52A | English 4, 7, 52B, or 70 |

Communications and

Analytical Thinking Complete a minimum of 3 SEM UNITS

- | | |
|---|--|
| Business 14, 16, 31 | Industrial Technology 74 |
| Computer Application Systems 8, 80, 91 | Library Studies 3 |
| Computer Science 8, 10, 14, 15, 19A, 47A, 47B, 91, 92 | Mass Communications 6, 8, 32, 40 |
| Electronics and Computer Technology 65, 91 | Mathematics 1, 2, 12, 20, 31, 32, 33, 35, 36, 37, 40, 43, 55 |
| Foreign Language 1A*, 1B* | 55A, 55B, 65, 65B, 65L |
| Geography 20* | Philosophy 12 |
| History 5* | Psychology 5 |
| | Speech 1, 2B, 10, 11*, 30, 40, 46 |
| | Theater Arts 3, 25* |

** May be used to fulfill one area only.*

B. NATURAL SCIENCE . . . Complete a minimum of 3 SEM UNITS

- | | |
|---------------------------------------|---------------------------------|
| Anatomy 1 | Geography 1*, 1L, 8, 20* |
| Anthropology 1*, 1L | Geology 1A, 10, 10L 12, 12L, 15 |
| Astronomy 1, 10, 20, 30 | Microbiology 1 |
| Biology 2A, 2B, 5, 10, 12, 20, 31, 50 | Physical Education 17 |
| Botany 10 | Physical Science 15 |
| Chemistry 1A, 8, 10, 30A, 31 | Physics 2A, 4A, 11 |
| Ecology 8, 10, 11, 12 | Physiology 1 |
| | Zoology 10 |

** May be used to fulfill one area only.*

C. HUMANITIES Complete a minimum of 3 SEM UNITS

- | | |
|--|---|
| Architecture 2A, 2B, 4A, 4B, 8A, 8B, 12, 14, 16, 20 | Italian 1A*, 1B* |
| Art 1, 2A, 3A, 4, 5, 6, 10, 16A, 17, 54, 67 | Japanese 1A*, 1B* |
| Creative Arts 10 | Music I, 2A, 2B, 2C, 2D, 3, 4, 12, 14, 43, 44, 45, 50 |
| English 12, 13, 16, 20, 21, 22, 32, 33, 38, 45, 47, 48 | Philosophy 1, 2, 4, 7, 25 |
| Foreign Language 2A | Photography 50, 67 |
| French 1A*, 1B*, 2A | Religious Studies 1, 7, 11, 12, 30 |
| General Studies 30*, 31 | Sign Language 64, 65 |
| German 1A*, 1B* | Spanish 1A*, 1B*, 5, 2A |
| History 1*, 2* | Speech 2A, 5 |
| Humanities 1, 3, 7, 10, 28, 30, 35, 40, 45 | Theater Arts 1A, 10, 12, 25*, 47, 48, 50 |

** May be used to fulfill one area only.*

D. SOCIAL AND BEHAVIORAL

SCIENCES Complete a minimum of 3 SEM UNITS

- | | |
|---|---|
| Administration of Justice 50, 60 | Mass Communications 31 |
| Anthropology 1*, 2, 3, 5, 8, 12 | Political Science 1*, 12*, 20*, 25*, 30*, 40* |
| Business 17, 36, 40 | Psychology 1, 2, 3, 6, 8, 12, 18, 33, 45 |
| Early Childhood 87 | Psychology-Counseling 1, 4, 13 |
| Economics 1, 2, 5, 10, 12 | Sociology 1, 2, 3, 4, 8, 10, 11, 30, 31, 32 |
| General Studies 30*, 39 | Speech 11* |
| Geography 1*, 2, 3, 5, 12 | |
| Health 8 | |
| History 1*, 2*, 5*, 7*, 8*, 12*, 19, 20*, 21*, 22*, 25*, 44 | |

** May be used to fulfill one area only.*

E. HEALTH AND PHYSICAL EDUCATION

1. Health Education: Complete 3 SEM UNITS

- Health 1, 4, Physical Education 18 or
- A.A. Degree in Nursing or Dental Hygiene

2. Physical Education. Complete 2 SEM UNITS

- Physical Education 1, 2, 3, 5, 6, 7, 12, 13, 13R, 14, 30-48, 50

Exemption is allowed for illness or physical disability by filing a physician's statement at the Admissions and Records Office. Students who hold an A.A./A.S. Degree or higher are also exempt.

AMERICAN INSTITUTIONS: Complete a minimum of 6 SEM UNITS

Select one course from Group A and one course from Group B

- Group A: History 7* or Political Science 1*
Group B: History 8*, 12*, 14*, 20*, 21*, 22*, 25*, 27*
Political Science 12*, 20*, 25*, 30*, 40*

** May be used to fulfill one area only.*

AMERICAN CULTURES: (for new and returning students effective Fall 1995 and thereafter)

Complete one course identified as meeting the American Cultures requirement* with a grade of "C" or higher or "CR". Where it is appropriate, the course can simultaneously satisfy other graduation or disciplinary requirements. Other courses meeting this requirement may be added during the academic year.

- | | |
|-------------------------|--------------------------------|
| Anthropology 5 | Psychology-Counseling 1, 13 |
| English 32, 33 | Sociology 1, 3, 30 |
| History 5, 7, 8, 12, 27 | Theater Arts 14 (3 units only) |
| Humanities 10 | |

*** Courses/sections which fulfill the American Cultures requirement appear with an "A" before the section number, (i.e. HIST 7-A01). This requirement may vary from college to college and semester to semester; students are advised to consult the Class Schedule and counseling for current listings.**

GRADUATION REQUIREMENTS

MATHEMATICS PROFICIENCY:

Proficiency in mathematics is required by passing one of the following courses with a grade of "C" or higher or "CR". When appropriate, the course can simultaneously satisfy other graduation or disciplinary requirements.

Business 16

Electronics and Computer Technology 65

Industrial Technology 74

Mathematics 1, 2, 20, 31, 32, 33, 35, 36, 37, 40, 43, 55, 55A, 55B, 65, 65B, 65L

Psychology 5

II. ADDITIONAL REQUIREMENTS

1. For career majors, all requirements for the major must be met plus electives to total 60 semester units.
2. In reference to unit requirements the Title V regulations state that at least 12 semester units must be completed in residence at the college granting the degree.
3. All transcripts from other colleges must be submitted to the Admissions and Records Office before a graduation evaluation may be made.

Students earning a certificate, A.S. or A.A. degree in an Occupational/Technical area must complete a minimum of 12 units in residency at Chabot College within the degree major or certificate program. Students in articulated degree/transfer or Liberal Studies programs will need a total of 12 units of residency at Chabot College in general education, major, or elective courses.

III. OTHER GRADUATION INFORMATION

1. Commencement exercises are held in late May or early June. All students receiving degrees during the current academic year are cordially invited to participate.
2. Students may receive degrees or certificates at the end of any semester or the summer session. Students should petition no later than the fifth instructional week of the semester in which they plan to complete the requirements. "Request for course evaluation for A.A./A.S. degree or certificate" forms are available at the Admissions and Records Office.



GRADUATION REQUIREMENTS

REQUIREMENTS FOR THE DEGREE OF ASSOCIATE IN SCIENCE

A student is eligible for graduation with the ASSOCIATE IN SCIENCE DEGREE after completing all requirements for the **MAJOR** plus electives to total 60 semester units of work with a 2.0 cumulative average or better. The General Education Requirements for the Associate in Science Degree are listed below:

I. ASSOCIATE IN SCIENCE DEGREE (A.S.)

A. LANGUAGE AND RATIONALITY:

English Composition

(Language and Rationality) **Complete a minimum of 3 SEM UNITS**

English 1A, 52A or 70

Communications and

Analytical Thinking Complete a minimum of 3 SEM UNITS

From the Following:

Business 14, 16, 31

Computer Application

Systems 8, 80, 91

Computer Science 8, 10, 14, 15,

19A, 47A, 47B, 91, 92

Electronics and Computer

Technology 65, 91

Foreign Language 1A*, 1B*

History 5*

Geography 20*

Industrial Technology 74

Library Studies 3

Mass Communications 6, 8, 32, 40

Mathematics 1, 2, 12, 20, 31, 32,

33, 35, 36, 37, 40, 43, 55

55A, 55B, 65, 65B, 65L

Philosophy 12

Psychology 5

Speech 1, 2B, 10, 11*, 30, 40, 46

Theater Arts 3, 25*

** May be used to fulfill one area only.*

B. NATURAL SCIENCE . . . Complete a minimum of 3 SEM UNITS

Anatomy 1

Anthropology 1*, 1L

Astronomy 1, 10, 20, 30

Biology 2A, 2B, 5, 10, 12, 20,

31, 50

Botany 10

Chemistry 1A, 8, 10, 30A, 31

Ecology 8, 10, 11, 12

Geography 1*, 1L, 8, 20*

Geology 1A, 10, 10L 12, 12L, 15

Microbiology 1

Physical Education 17

Physical Science 15

Physics 2A, 4A, 11

Physiology 1

Zoology 10

** May be used to fulfill one area only.*

C. HUMANITIES Complete a minimum of 3 SEM UNITS

Architecture 2A, 2B, 4A, 4B,

8A, 8B, 12, 14, 16, 20

Art 1, 2A, 3A, 4, 5, 6, 10, 16A,

17, 54, 67

Creative Arts 10

English 12, 13, 16, 20, 21, 22,

32, 33, 38, 45, 47, 48

Foreign Language 2A

French 1A*, 1B*, 2A

General Studies 30*, 31

German 1A*, 1B*

History 1*, 2*

Humanities 1, 3, 7, 10, 28, 30,

35, 40, 45

Italian 1A*, 1B*

Japanese 1A*, 1B*

Music I, 2A, 2B, 2C, 2D, 3, 4,

12, 14, 43, 44, 45, 50

Philosophy 1, 2, 4, 7, 25

Photography 50, 67

Religious Studies 1, 7, 11, 12, 30

Sign Language 64, 65

Spanish 1A*, 1B*, 2A, 5

Speech 2A, 5

Theater Arts 1A, 10, 12, 25*, 47,

48, 50

** May be used to fulfill one area only.*

D. SOCIAL AND BEHAVIORAL

SCIENCES Complete a minimum of 3 SEM UNITS

Administration of Justice 50, 60

Anthropology 1*, 2, 3, 5, 8, 12

Business 17, 36, 40

Early Childhood 87

Economics 1, 2, 5, 10, 12

General Studies 30*, 39

Geography 1*, 2, 3, 5, 12

Health 8

History 1*, 2*, 5*, 7*, 8*, 12*,

19, 20*, 21*, 22*, 25*, 44

Mass Communications 31

Political Science 1*, 12*, 20*,

25*, 30*, 40*

Psychology 1, 2, 3, 6, 8, 10, 12,

18, 33, 45

Psychology-Counseling 1, 4, 13

Sociology 1, 2, 3, 4, 8, 10, 11,

30, 31, 32

Speech 11*

** May be used to fulfill one area only.*

E. HEALTH or AMERICAN INSTITUTIONS AND PHYSICAL EDUCATION

1. Health Education OR

American Institutions: Complete 3 SEM UNITS

Health 1, 4, Physical Education 18 or

History 7*, 8*, 12*, 14*, 20*, 21*, 22*, 25*, 27*, or

Political Science 1*, 12*, 20*, 25*, 30*, 40*

** May be used to fulfill one area only.*

2. Physical Education Complete 1 SEM UNIT

Physical Education 1, 2, 3, 5, 6, 7, 12, 13, 13R, 14, 30-48, 50

Dance 1

Exemption is allowed for illness or physical disability by filing a physician's statement at the Admissions and Records Office. Students who hold an A.A./A.S. Degree or higher are also exempt.

AMERICAN CULTURES: (Effective Fall 1995 and thereafter)

Complete one course identified as meeting the American Cultures requirement* with a grade of "C" or higher or "CR". Where it is appropriate, the course can simultaneously satisfy other graduation or disciplinary requirements. Other courses meeting this requirement may be added during the academic year.

Anthropology 5

English 32, 33

History 5, 7, 8, 12, 27

Humanities 10

Psychology-Counseling 1, 13

Sociology 1, 3, 30

Theater Arts 14 (3 units only)

*** Courses/sections which fulfill the American Cultures requirement appear with an "A" before the section number, (i.e. HIST 7-A01). This requirement may vary from college to college and semester to semester; students are advised to consult the Class Schedule and counseling for current listings.**

GRADUATION REQUIREMENTS

MATHEMATICS PROFICIENCY:

Proficiency in mathematics is required by passing one of the following courses with a grade of "C" or higher or "CR". When appropriate, the course can simultaneously satisfy other graduation or disciplinary requirements.

Business 16

Electronics and Computer Technology 65

Industrial Technology 74

Mathematics 1, 2, 20, 31, 32, 33, 35, 36, 37, 40, 43, 55, 55A, 55B, 65, 65B, 65L

Psychology 5

II. ADDITIONAL REQUIREMENTS

1. The Associate in Science Degree (A.S.) is not designed as a transfer degree. See a counselor for information and advice on transfer requirements.
2. For career majors, all requirements for the major must be met plus electives to total 60 semester units.
3. In reference to unit requirements the Title V regulations state that at least 12 semester units must be completed in residence at the college granting the degree.
4. All transcripts from other colleges must be submitted to the Admissions and Records Office before a graduation evaluation may be made.

Students earning a certificate, A.S. or A.A. degree in an Occupational/Technical area must complete a minimum of 12 units in residency at Chabot College within the degree major or certificate program. Students in articulated degree/transfer or Liberal Studies programs will need a total of 12 units of residency at Chabot College in general education, major, or elective courses.

III. OTHER GRADUATION INFORMATION

1. Commencement exercises are held in late May or early June. All students receiving degrees during the current academic year are cordially invited to participate.
2. Students may receive degrees or certificates at the end of any semester or the summer session. Students should petition for graduation no later than the fifth instructional week of the semester in which they plan to complete the requirements. "Request for course evaluation for A.A./A.S. degree or certificate" forms are available at the Admissions and Records Office.



TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY

This section of the catalog is designed to help students plan an academic program for transfer to a four-year college or university. It includes information about the transfer process as well as general education and lower division major requirements.

Chabot College provides the equivalent of the first two years of a four-year college or university program. Students with intentions to transfer to four-year colleges and universities may complete their lower division general education requirements AND lower division major field courses while at Chabot College. Students are advised to meet regularly with a counselor to assure a smooth transition to the transfer institution.

Current transfer flyers and official articulation agreements outlining specific transfer requirements are available in the Transfer Center, the Counseling Center, and the Articulation Office.

TRANSFER CENTER

The Chabot College Transfer Center specializes in working with students who intend to transfer to a 4-year college or university. The Transfer Center is located in Building 100, Room 146. For more information, students may call 723-6720. The following resources are available through the Transfer Center:

- Transfer assistance and information.
- College Catalogs
- Concurrent Enrollment and Cross Registration forms and assistance
- Admission Application forms
- Dual Admissions (See below)
- Personal statement assistance (UC)
- Transfer Admission Agreements (TAA) - forms and information (See page 23)
- Transfer application workshops
- College Transfer Day and Transfer Night
- Representatives from local universities available for transfer assistance
- Internet access to national and international transfer opportunities: ASSIST, College Source On-line, CAN
- Colleges and University Websites
- Education and scholarship information
- Major preparation information and assistance
- Scheduled tours to selected transfer institutions
- Other materials and assistance available as well

DUAL ADMISSIONS

Dual Admissions is a special program offered in conjunction with CSU Hayward for Chabot College students in their very first college year (first time freshman). Students interested in transferring to CSU Hayward are required to transfer within five years, complete the CSU GE pattern, and have a 2.0 grade point average (GPA). Students who have enrolled in this program are eligible to receive CSU services while attending Chabot College, such as: waiver of the \$55.00 CSU application fee, transfer advising by our CSU Hayward representative, library services provided by CSU Hayward. Applications for Dual Admissions are available in the Transfer Center, Building 100, Room 146.

CONCURRENT ENROLLMENT AND CROSS REGISTRATION

Chabot College students have the opportunity to take courses at CSU Hayward under "Cross Registration" or at UC Berkeley under "Concurrent Enrollment". Information, requirements, applications and assistance is available in the Transfer Center or see a counselor for further information.

CROSS-REGISTRATION WITH CALIFORNIA STATE UNIVERSITY, HAYWARD

Students who have completed 20 semester units at Chabot College may be eligible to cross-register with California State University, Hayward, while completing the requirements for an Associate in Arts Degree at Chabot College. Chabot College students who elect to "cross-register" may enroll in courses at the four year institution which are either: (1) upper division or (2) not offered at any time by Chabot College. For further information, contact the Counseling Center, Building 100.

CROSS-REGISTRATION WITH MILLS COLLEGE, OAKLAND

Students who have completed 20 semester units at Chabot College may be eligible to cross-register with Mills College, Oakland, while completing the requirements for an Associate in Arts Degree at Chabot College. The same coursework limitations that apply for California State University, Hayward, apply at Mills College. Such students should contact the Director of Admissions and Records, Room 192, Chabot College, for further information.

CONCURRENT ENROLLMENT – UC BERKELEY

Chabot College students who have completed 20 UC transferable units and have at least a 2.4 G.P.A. in the transferable course work, may be eligible to participate in concurrent enrollment with UC Berkeley. Students will be allowed to take ONE lower division course a semester, for a maximum of two semesters. For further information, contact the Counseling Center, Building 100, 723-6718.

DUAL ADMISSION PROGRAM WITH CSU, HAYWARD

The Dual Admission Program is intended for beginning college students who wish to start their baccalaureate degree at a community college and upon completion of the requirements for transfer enroll at California State University, Hayward. An important advantage of participating in the program is the waiver of the CSU application fee which is currently \$55.00. To participate, students must enroll in the Dual Admission Program before the end of the first semester or quarter at the community college. For further information, contact the Counseling Center, Building 100, 723-6718.

R.O.T.C. (RESERVE OFFICERS TRAINING CORP) PROGRAM CROSS-TOWN AGREEMENT WITH THE UNIVERSITY OF CALIFORNIA, BERKELEY

Students may enroll in Army or Air Force R.O.T.C. Programs at the University of California, Berkeley, while attending Chabot College full-time. Students should refer to this year's University of California catalog for R.O.T.C. course titles and descriptions. Interested students should contact the Director of Admissions and Records, Room 170, Chabot College, for further information.

TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY

CONCURRENT ENROLLMENT

Chabot College provides opportunities for minor students to enroll in college level degree applicable courses for advance scholastic or advance vocational purposes. Students who desire to participate in concurrent enrollment must be recommended by their principal and have written parental permission. Concurrently enrolled students will be permitted to enroll in no more than 6 units per semester or 2 classes. The students will be treated as regular college students and are expected to comply with all College rules and regulations. At the completion of the course, the student receives college credit. They must arrange for their own transportation to and from the College and provide their own books and equipment. *(This policy is subject to change, please contact the VP of Student Services for current information.)*

ARTICULATION

The Office of Articulation procures and maintains course-to-course and major preparation agreements with 4-year transfer institutions, UC, CSU, private institutions, and Out-of-State schools. Chabot articulation services enable a seamless transfer for students. The Office of Articulation maintains IGETC and CSU/GE Certification informational flyers, AA/AS GE flyers, reports curriculum updates to transfer schools, as well as ASSIST. The Articulation Office also provides resources and assistance for counselors, instructional faculty and students with course transferability concerns.

TRANSCRIPTS FROM OTHER COLLEGES AND UNIVERSITIES

Any student enrolled at Chabot College who have academic credit for courses taken at other accredited colleges/universities must submit official transcripts of that work to the Admissions and Records Office. The official transcripts are required for the following academic transactions:

1. AA/AS degree evaluations
2. Academic Renewal petitions
3. Prerequisite verifications or challenges
4. Financial Aid student education plans
5. Certification of CSU/GE or IGETC.

To be credited by Chabot College, the course work must meet the following criteria:

1. The course(s) must have been taken at an accredited college/university.
2. The course(s) must be lower division.
3. The course(s) must have been completed with a grade of "D" or higher. All transferred grades (including F's) will be used in the calculation of units attempted, units completed, and the grade point average. (IGETC Certification requires a grade of "C")
4. The content of the course(s) must be recognized as equivalent to the current Chabot College course standards. The Dean of Counseling at Chabot College shall be responsible for determining course equivalency.

Under certain circumstances set forth in the College Academic Renewal Policy and Procedures, the student's substandard grades (D's and F's) may be excluded from the computation of current academic standing at Chabot College.

It is the student's responsibility to initiate a request to each institution asking that an official transcript of his/her work be sent directly to the Admissions and Records Office at Chabot College. See a counselor for assistance with an unofficial evaluation of your courses and petition for an official evaluation.

ARTICULATION WITH 4-YEAR SCHOOLS

Many baccalaureate level courses offered at Chabot College have been articulated with UC, CSU and Private Institutions. Depending on the transferability of the course, the UC and CSU will accept up to 70 semester units of Chabot courses. The Articulation Office provides Chabot the following UC and CSU transferable and general education certification lists. Look for the following in the Counseling Office and/or Transfer Center.

- FLYER #100 - Transferable courses to CSU
- FLYER #101 - CSU/General Education Breadth Certification information
- FLYER #102 - Transferable courses to UC
- FLYER #129 - IGETC (UC/CSU) Certification information

ASSIST

ASSIST, a data base computer software program, is specifically designed to provide course comparability information between the three public post-secondary systems in California, UC, CSU and CCC (California Community College). A CCC student transferring from the community colleges to the UC or CSU quickly realizes the complexity of determining which courses are comparable, since course number will probably be different from institution to institution. ASSIST provides that information. ASSIST also displays, major preparation agreements between the CCC and many of the CSU/UC transfer schools, as well as complete lists of courses acceptable for transfer (UC & CSU) and IGETC and CSU/GE lists for all the CCCs. Chabot College strongly recommends that students see a counselor for assistance. ASSIST information can be accessed via world wide web at www.assist.org.

CALIFORNIA ARTICULATION NUMBER (CAN) SYSTEM

Chabot College participates in the California Articulation Number (CAN) System. The CAN System, based on course-to-course articulation, simplifies the identification of transferable, lower division courses by assigning an identifying CAN number to courses that are comparable from different institutions. Course numbers from different institutions may be different, but their CAN number will be the same, thus enabling easier course identification. The CAN number for those Chabot courses that are qualified is cited following the course description in the Chabot catalog. Chabot currently has over 80 CAN qualified courses. A list of qualified CAN courses is available in the Counseling Office. CAN information can be accessed via world wide web at www.cansystem.org.

PREPARATION OF STUDENTS FOR TRANSFER

A Chabot College student can transfer to a four-year college or university as a junior by completing the following requirements with the grade point required by the specific transfer institution:

TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY

1. **Lower-division Major Requirements.** Courses in the major allow one to concentrate in depth in a field of study. Students should take the specific lower division courses required for their chosen major. Articulation agreements which list detailed information concerning specific majors and which describe course transferability and applicability between Chabot College and baccalaureate degree granting institutions are available from a counselor or in the Articulation Office of Chabot College.
2. **General Education Requirements.** General education reflects the belief that a portion of a student's education should be devoted to broadening a student's awareness. Courses in writing, critical thinking, mathematics, sciences, arts and humanities, and the social sciences are included in general education. Several different patterns of general education courses can be used to fulfill the lower division general education breadth requirements at four-year institutions. They include UC and CSU campus-specific patterns, CSU's General Education Breadth Requirements, and the Intersegmental General Education Transfer Curriculum (IGETC).
3. **Electives.** These are courses of choice taken in addition to courses for the major and general education requirements. The list of elective transferable courses to the UC or CSU may be obtained through the Transfer Center or Counseling Area.

TRANSFER ADMISSION AGREEMENTS (TAA)

A TAA is a formal, written agreement that outlines the courses a student must complete before transferring, states the grade point average a student must earn, and lists specific requirements for impacted majors. Students who comply with the agreement and apply for admission on time during the appropriate filing period are guaranteed admission. Chabot College has Transfer Admission Agreements with the following four-year institutions: UC Davis, UC Riverside, UC Santa Cruz, CSU San Jose, CSU San Francisco, CSU Monterey Bay, and University of Santa Clara. Please consult with your counselor for additional information about Transfer Admission Agreements.

CALIFORNIA STATE UNIVERSITY (CSU)

ADMISSION REQUIREMENTS FOR TRANSFERS

If you have completed college units after leaving high school, you are considered a "transfer" student. Students who have completed college units before they graduated from high school or during the summer between high school graduation and CSU enrollment are considered first-time freshmen and must meet those CSU admission requirements for first-time freshman.

There are two types of transfer students, lower division transfer and upper division transfer. **Lower division** transfer students are those who have completed less than 56 or fewer transferable semester units (84 quarter units). **Upper division** transfers have completed 56 or more transferable semester units (84 quarter units). Some California State Universities require 60 CSU transferable units.

Lower Division Transfer Admission Requirements:

You are eligible for admission to the CSU if you:

- Have a college GPA (grade point-average) of 2.0 or better in all transferable college units completed.
- Are in good standing at the last college or university attended, i.e. you are eligible to re-enroll.
- Meet the CSU admission requirements for first-time freshman or have successfully completed necessary course to make up deficiencies you had in high school if you did not complete the 1 5-unit pattern of college preparatory subjects.
- Meet the eligibility index required of a first-time freshman to CSU.
- Some CSU campuses require completion of English Composition and GE Math.
- Contact the CSU campus of your choice to determine your status as a lower division transfer student and whether that CSU accepts lower division transfers.

Upper Division Transfer Admission Requirements:

You are eligible for admission to the CSU if you:

- Completed or will complete 56 semester (84 quarter) or more CSU transferable units with an overall GPA of 2.0 or better. Some California State Universities require 60 CSU transferable units.
- Are in good standing at the last college or university attended, i.e. you are eligible to re-enroll.
- Have completed or will complete prior to transfer at least 30 semester units (45 quarter units) of courses equivalent to general education requirements with a grade of C or better. (See Flyer #101, Areas A-E) including general education requirements in Oral Communication, English Composition, Critical Thinking and Mathematics/Quantitative Reasoning (See Flyer # 101, Area A 1, A2, A3 and B4 all with a "C" grade)
- CSU will apply up to 70 transferable lower division units toward the baccalaureate degree.

GENERAL EDUCATION REQUIREMENTS FOR CALIFORNIA STATE UNIVERSITY

To earn a bachelor's degree from the California State University, each student must complete a program of general education. Chabot College offers two general education programs which enable students to meet, prior to transfer, all of the lower-division general education requirements. Students can complete either the Intersegmental General Education Transfer Curriculum (IGETC) or the CSU General Education Breadth Requirements.

Intersegmental General Education Transfer Curriculum (IGETC) FLYER #129

1. English Communication — 9 sem units
2. Mathematical Concepts and Quantitative Reasoning — 3 sem units
3. Arts and Humanities — 9 sem units
4. Social and Behavioral Sciences — 9 sem units
5. Physical and Biological Sciences — 7-9 sem units

The IGETC *must be completed in its entirety prior* to transfer. Students who do not complete the entire program before transfer will be subject to the general education requirements of the

TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY

campus or college to which they transfer. Each class must have a "C" or "CR" or better grade. Advanced Placement (AP) scores of 3, 4, or 5 can be used to satisfy IGETC requirements (see the Advanced Placement Chart in this catalog).

CSU General Education Breadth Requirements FLYER #101

- A. Communications in the English Language and Critical Thinking — 9 sem units
- B. Physical and Life Sciences, Mathematics — 9 sem units
- C. Arts, Literature, Philosophy, Foreign Languages — 9 sem units
- D. Human Social, Political and Economic Institutions and Behavior — 9 sem units
- E. Understanding and Self Development — 3 sem units

California State University also has an American Institutions graduation requirement which can be satisfied prior to transfer. See your counselor for the list of courses that satisfies this requirement.

UNIVERSITY OF CALIFORNIA (UC)

ADMISSION REQUIREMENTS FOR TRANSFERS

(Effective Fall 1998)

Current Requirements

1. Students who were eligible for admission to the University when they graduated from high school—meaning they satisfied the Subject, Scholarship, and Examination Requirements – are eligible to transfer if they have a "C" (2.0) average in their transferable college coursework.
2. Students who met the Scholarship Requirement and examination requirements but did not satisfy the Subject Requirement must take transferable college courses in the subjects they are missing, earn a grade of "C" or better in each of these required courses, and earn an overall "C" (2.0) average in all transferable college coursework to be eligible to transfer.
3. Students who met the Scholarship Requirement but did not meet the Examination Requirement must complete a minimum of 12 semester (18 quarter) units of transferable work and earn an overall "C" (2.0) average in all transferable college coursework completed.
4. Students who were not eligible for admission to the University when they graduated from high school because they did not meet the Scholarship Requirement must:
 - a. Complete 60 semester or 90 quarter units of transferable college credit with a grade point average of at least 2.4, *and*
 - b. Complete a course pattern requirement to include:
 1. Two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
 2. One transferable college course (1 semester or 4-5 quarter units) in Mathematical Concepts and Quantitative Reasoning; and
 3. Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas; the Arts and Humanities, the Social and Behavioral Sciences, the Physical and Biological Sciences.

Important note: Higher grade point averages than those listed above are required at some campuses and for some majors.

GENERAL EDUCATION REQUIREMENTS FOR THE UNIVERSITY OF CALIFORNIA

To earn a bachelor's degree from the University of California, each student must complete a program of general education. To meet the general education requirements for most majors within the UC, students can complete either the Intersegmental General Education Transfer Curriculum (IGETC) or the general education requirements of the transfer campus. It is not advisable for all transfer students to follow IGETC. Some students may be better served by taking courses which fulfill the requirements of the UC campus to which they plan to transfer. The counseling office has a list of four-year schools and majors for which the IGETC is not advisable. Students are advised to consult a counselor for information about the general education pattern that will be best for them.

Intersegmental General Education Transfer Curriculum (IGETC) Certification FLYER #129

1. English Communication — 6 sem units/8-9 qtr units
2. Mathematical Concepts and Quantitative Reasoning — 3 sem units/4-5 qtr units
3. Arts and Humanities — 9 sem units/12-15 qtr units
4. Social and Behavioral Sciences—9 sem units/12- 15 qtr units
5. Physical and Biological Sciences—7-9 sem units/9-12 qtr units
6. Language other than English (UC requirement only)
Students shall demonstrate proficiency in a language other than English equal to 2 years of high school study in the same language.

The IGETC must be completed in its entirety prior to transfer. Students who do not complete the entire program before transfer will be subject to the general education requirements of the campus or college to which they transfer. Each class must have a "C", "CR" or better grade. Advanced Placement (AP) scores of 3, 4, or 5 can be used to satisfy IGETC requirements (see the Advanced Placement Chart in this catalog).

PARTIAL IGETC CERTIFICATION

If a student is unable to complete one or two IGETC requirements (areas 3-5), the last term before transfer, due to "extenuating circumstances," partial IGETC certification may be possible prior to transfer. See a Counselor for details.

CERTIFICATION OF GENERAL EDUCATION FOR TRANSFER TO UC OR CSU

Upon a student's request Chabot College will certify the completion of the Intersegmental General Education Transfer Curriculum (IGETC) or the CSU General Education Breadth Requirements. Students who transfer without certification will have to meet the general education requirements of the specific campus to which they are transferring. Certification is not automatic and must be requested after the completion of the last term prior to transfer. This request should be made in the Admissions and Records Office when final transcripts are sent to the transfer school. Students are encouraged to seek the advice of a Counselor, Building 100.

ADVANCED PLACEMENT PROGRAM

ADVANCED PLACEMENT PROGRAM

Chabot College recognizes the following courses and credits for the following Advanced Placement (AP) Exam scores. These will apply to the completion of GE requirements for AA/AS Degrees, CSU General Breadth Certification and IGETC Certification and Chabot prerequisite requirements. Official copies of the AP Exam scores must be on file with Chabot College and an evaluation requested with the Admissions & Records Office.

Because each college and university evaluates AP scores differ-

ently, students should contact the institution to which they are transferring regarding AP scores meeting specific requirements. For example, some AP scores may meet university GE requirements, but not requirements for specific majors. See a Chabot counselor for assistance.

Students will not receive credit for a course if they have already been granted credit for that course using AP examination results. Transfer institutions may not grant credit for taking a course that was awarded AP examination credit.

CHABOT COLLEGE COLLEGE BOARD ADVANCED PLACEMENT (AP) EXAMINATION CREDITS

AP Examination	AP Score	Subject Credit Given For:	Prerequisite Met For The Following Course(s)	Chabot Credits Issued For Graduation	1. AA/AS GE 2. CSU/GEB 3. IGETC Requirements Met
ART, History	3, 4, 5	Art 4 or 5	n/a	3 units	1. Satisfies Area C 2. 3 units toward Area C1 3. 3 units toward Area 3, Art
ART, Studio	3, 4, 5	n/a	n/a	3 units portfolio review required	1. Satisfies Area C 2. Not applicable 3. Not applicable
BIOLOGY	3, 4, 5	Biology 31	Anatomy 1 Microbiology 1	4 units	1. Satisfies Area B 2. 3 units toward Area B2 (no lab units) 3. Area 5, Group B (no lab units)
CALCULUS AB	3, 4, 5	Math 1	Math 2 Math 35 Physics 4A	5 units	1. Area A, C.A.T. and Math Proficiency 2. 3 units toward Area B4 3. Satisfies Area 2
CALCULUS BC	3, 4, 5	Math 2	Engineering 35 Math 3 Physics 4B	5 units	1. Area A, C.A.T. and Math Proficiency 2. 3 units toward Area B4 3. Satisfies Area 2
CHEMISTRY	3, 4, 5	Biology 2A Chemistry 1A	Chemistry 1B Engineering 45	5 units	1. Satisfies Area B 2. 6 units toward Area B1 and B3 (lab) 3. Satisfies Area 5, Group B (no lab units)
ECONOMICS Macro	3, 4, 5	Economics 1	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4
ECONOMICS Micro	3, 4, 5	Economics 2	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D2 3. 3 units toward Area 4
ENGLISH Language & Composition	3, 4, 5	English 1A	English 4 or 7	3 units	1. 3 units toward Area A (1.1) 2. 3 units toward Area A2 3. Satisfies Area 1, Group A
ENGLISH Literature & Composition	3, 4, 5	English 1A	English 4 or 7	3 units	1. 3 units toward Area A (1.2) 2. 6 units toward Area A2 and Area C2 3. Satisfies Area 1, Group A or 3 units toward Area 3, Humanities

ADVANCED PLACEMENT PROGRAM

AP Examination	AP Score	Subject Credit Given For:	Prerequisite Met For The Following Course(s)	Chabot Credits Issued For Graduation	1. AA/AS GE 2. CSU/GEB 3. IGETC Requirements Met
EUROPEAN HISTORY	3, 4, 5	History 1 or 2	n/a	3 units	1. Satisfies Area C 2. 3 units toward Area D6 3. 3 units toward Area 4
FRENCH Language	3, 4, 5	French 1B	French 2A	5 units	1. Satisfies Area A, C.A.T., C 2. 6 units toward Area C2 3. Satisfies Language Proficiency
GERMAN Language	3, 4, 5	German 1B	German 2A	5 units	1. Area 1, C.A.T. and/or Area C 2. 6 units toward Area C2 3. Satisfies Language Proficiency
GOVERNMENT & POLITICS United States	3, 4, 5	Political Science 1	n/a	3 units	1. Satisfies American Institutions, Poli Sci 1 2. 3 units toward Area D8 (not used for A.I.) 3. 3 units toward Area 4
GOVERNMENT & POLITICS Comparative	3, 4, 5	Political Science 20	n/a	3 units	1. Satisfies American Institutions, Poli Sci 20 2. 3 units toward Area D8 (not used for A.I.) 3. 3 units toward Area 4
MUSIC THEORY	3, 4, 5	Music 8A & 8B	Music 10A	8 units	1. Not applicable 2. 3 units toward Area C1 3. 3 units toward Area 3A
PHYSICS B	3, 4, 5	Physics 4A	Engineering 35 Engineering 44 Engineering 45 Physics 4B	5 units	1. Satisfies Area B 2. 6 units toward Area B1 & B3 3. Satisfies Area 5, Group A (no lab units)
PHYSICS C, Mechanical	3, 4, 5	Physics 4A	Physics 4B	5 units	1. Satisfies Area B 2. 3 units toward Area B1 & B3 3. Satisfies Area 5, Group A (no lab units)
PHYSICS, Electricity, Magnetism	3, 4, 5	Physics 4B	Physics 4C	5 units	1. Satisfies Area B 2. 3 units toward Area B1 and B3 (lab) 3. Area 5, Group A (no lab units)
PSYCHOLOGY	3, 4, 5	Psychology 1	n/a	3 units	1. Satisfies Area D 2. 3 units toward Area D9 3. 3 units toward Area 4
SPANISH Language	3, 4, 5	Spanish 1B	Spanish 2A	5 units	1. Area A, C.A.T., C 2. 3 units toward Area C2 3. Satisfies Language Proficiency
STATISTICS	3, 4, 5	Math 43	n/a	4 units	1. Satisfies 3 units, Area A, C.A.T. and Math Proficiency 2. 3 units toward Area B4 3. Satisfies Area 2
U.S. HISTORY	3, 4, 5	History 7 or 8	n/a	3 units	1. Satisfies American Institutions (Hist 7 or 8) 2. 3 units toward Area D6 (not for A.I.) 3. 3 units toward Area 4

Students will not receive credit for a course if they have already been granted credit for that course using AP examination results. Transfer institutions may not grant credit for taking a course that was awarded AP examination credit.

DEGREE PROGRAMS AND TRANSFER MAJORS

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Accounting			X		
Accounting Technician				X	
Administration of Justice		X			
Administrative Assistant			X	X	
Aquatics				X	X
Architecture	X	X	X		
Art (General)	X	X			
Art-Emphasis/Ceramics	X	X			
Art-Emphasis/Painting	X	X			
Art-Emphasis/Sculpture	X	X			
Automotive Diagnostic Technology			X		
Automotive Mechanics				X	
Automotive Service				X	
Automotive Technology			X	X	
Behavioral Science (General)	X	X			
Biology	X	X			
Biology/Emphasis in Allied Health	X	X			
Business Administration	X	X			
Business (General)			X		
Business (Emphasis in International Business)			X		
Business (Emphasis in Marketing)			X		
Business (Emphasis in Management)			X		
Chemistry	X		X		
Chicano/Latino Studies		X			
Coaching				X	X
Computer Application Systems - Programming		X			
Computer Application Systems - Software Applications		X		X	
Computer Science (General)		X	X		
Computer Science (Emphasis in Math)		X	X		
Computer Science - Computer Programming				X	
Computer Science - Linux Administration and Web Site Management		X	X		
Computer Science-Linux Systems Administration Specialist				X	
Computer Science-Linux Systems Programming		X	X		
Computer Science-Linux Systems Programming Specialist				X	
Computer Science-Microsoft Access/SQL Database Specialist					X
Computer Science-Oracle/SQL/SQL Server Specialist				X	
Computer Science-Web Site Development Specialist				X	
Correctional Science					X
Dental Hygiene				X	
Design Technology - Electro Mechanical			X	X	
Early Childhood Development		X			
Early Childhood Development (Basic Teacher)				X	
Early Childhood Development (Associate Teacher)					X
Electronics & Computer Technology			X	X	

DEGREE PROGRAMS AND TRANSFER MAJORS

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Electronics Assembly					X
Electronics Audio/Video Technology				X	
Engineering			X		
Engineering Preparation	X				
Engineering Technology - Electronics			X		
Engineering Technology - Manufacturing			X		
English (Emphasis in Literature)		X			
Ethnic Studies	X	X			
Fire Service Technology		X		X	
Fire Service Technology - Inspector		X		X	
Fitness Instructor				X	X
French		X			
Graphic Design	X	X			X
Health Information Clerk					X
Health Information Coding				X	
Health Information Technology			X		
Humanities (General)	X	X			
Industrial Technology			X		
Interior Design			X	X	
International Studies	X	X			
Journalism		X			
Liberal Studies		X			
Machine Tool Technology			X		
Machinist				X	
Management					X
Marketing				X	
Mass Communications		X			
Mathematics	X	X	X		
Medical Assisting		X		X	
Medical Transcription				X	
Multicultural Awareness/Relations Service Provider					X
Multicultural Awareness/Self Reflection					X
Music		X			
Numerical Control			X		
Numerical Control Programmer (Machinist)				X	
Nursing		X			
Nursing Program for LVN		X			

DEGREE PROGRAMS AND TRANSFER MAJORS

Program	Transfer	Associate in Arts	Associate in Science	Certificate of Achievement	Certificate of Completion
Office Technology				X	X
Photography		X			X
Physical Education	X	X	X		
Physics	X		X		
Psychology-Counseling					X
Radio & Television Broadcasting		X			
Real Estate		X		X	
Security					X
Social Science (General)	X	X			
Sociology (Emphasis in Gerontology)		X			X
Spanish		X			
Speech Communication	X	X			
Sports Injury Care				X	X
Technical Illustration			X		
Tool Maker				X	
Welding				X	
Welding Technology			X		



Semester Units — All courses in this catalog are described in semester units. One unit is equivalent to three hours of recitation, study or laboratory work per week throughout a semester.

Numbering System and Transferability of Courses — The system used in designation of courses is established to indicate the intent of the course and its relationship to the offerings of four year colleges and universities. Courses numbered 100 and above are not for A.A. Degree, A.S. Degree or transfer credit. Students may not receive more than 30 semester units for precollegiate basic skills courses (ESL and learning disabled students are exempted).

Special Numbers and Rubrics — The following special numbers and rubrics are used with a variety of course subject titles. Refer to the catalog listing for further description.

- 9 Colloquia
- 29 Independent Study (Transfer)
- 49 Contemporary Studies
- 97 Apprentice Courses
- 99 Special Studies
- 100-149 Basic Skills
- 150-199 Continuing Education Studies
- 200-299 Community Interest Studies (Non-Credit)

Questions regarding the transferability of units earned in a specific course to a specific institution should be referred to a college counselor. A list of Baccalaureate applicable transfer courses to California State University and colleges and to the University of California is available from each college counselor.

While the final selection of courses is the responsibility of the student, s/he should consult with a college counselor to determine the appropriateness of the courses for the major and to the institution to which s/he intends to transfer.

CLASS SCHEDULE — The specific information regarding the days, hours, instructors and rooms in which classes will be held in the coming semester is contained in the Class Schedule which is available from the Bookstore prior to the start of the semester.

REGISTRATION — A student must be registered in a course within the officially designated time, to receive credit.

CALIFORNIA ARTICULATION NUMBER (CAN) — The California Articulation Number (CAN) System identifies some of the transferable, lower division, introductory, preparatory courses commonly taught within each academic discipline on college campuses.

The system assures students that CAN courses on one participating campus will be accepted “in lieu of” the comparable CAN course on another participating campus. Example: CAN ECON 2 on one campus will be acceptable for CAN ECON 2 on another participating campus. Each campus retains its own numbering system.

The California Articulation Numbers are listed parenthetically by the course description in this catalog.

For other Chabot College courses transferable to four-year institutions, see FLYERS #100 and #102 available in the Counseling lobby on both campuses. Additional information concerning the CAN systems is available in the office of the Dean of Counseling.

ACCOUNTING

(See Business)

ACCOUNTING TECHNICIAN

(See Business)

ADMINISTRATION OF JUSTICE (ADMJ)

DEGREE

AA—ADMINISTRATION OF JUSTICE

**CERTIFICATE OF COMPLETION:
CORRECTIONAL SCIENCE
SECURITY**

The Administration of Justice curriculum is designed to prepare students for careers in the fields of law enforcement, probation, parole, security, and related criminal justice fields along with related technical occupations. The two-year program combines instruction in corrections, law enforcement and security with general education courses required for graduation. Students can earn an Associate in Arts degree in Administration of Justice or Certificates of Completion in Correctional Science or Security. The program has been authorized by the Commission on Peace Officer Standards and Training and the Board of Corrections to offer certain technical and special courses.

ADMINISTRATION OF JUSTICE

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR **FALL** **SPRING**

Administration of Justice 50	
(Introduction to Administration of Justice)	3
Administration of Justice 54	
(Investigative Reporting)	3
Administration of Justice 60 (Criminal Law)	3
Administration of Justice 61 (Evidence)	3

SOPHOMORE YEAR **FALL** **SPRING**

Administration of Justice 62 (The Justice System)	3
Administration of Justice 70	
(Community Relations)	3
Administration of Justice**	4-6
Health 60 (Responding to Emergencies)	1
Total	23-25

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

***Administration of Justice Options are to be selected from:
Administration of Justice 51, 52, 53, 55, 56, 57, 58, 59, 63, 64, 66, 67,
69, 71, 72, 74, 81, 82, 84, 86, and 89.*

CORRECTIONAL SCIENCE

CERTIFICATE OF COMPLETION

CORE COURSES	FALL	SPRING
Administration of Justice 55 (Introduction to Correctional Science)	3	
Administration of Justice 56 (Fundamentals of Crime and Delinquency)	2	
Administration of Justice 57 (Community Agencies and Treatment)	2	
Administration of Justice 61 (Evidence)	3	
Administration of Justice 84 (Interviewing—Interrogation)	1	
Electives	5-6	
Total	16-17	

SECURITY

CERTIFICATE OF COMPLETION

CORE COURSES	FALL	SPRING
Administration of Justice 51 (Introduction to Security)	2	
Administration of Justice 52 (Retail Security)	2	
Administration of Justice 53 (Industrial Security)	2	
Administration of Justice 61 (Evidence)	3	
Administration of Justice 84 (Interviewing—Interrogation)	1	
Electives*	½	
Total	10½	

* *Suggested Electives:*
 Administration of Justice 75 (Security Firearms Qualifications)
 Administration of Justice 76 (Baton Training for Security Guards)

**ADMINISTRATION OF JUSTICE
(ADMJ)**

- 50 INTRODUCTION TO ADMINISTRATION OF JUSTICE** **3 UNITS**
(Included in CORE curriculum of baccalaureate degree-granting institutions.)
 History and philosophy of administration of justice in America; recapitulation of the system; identifying the various subsystems, role expectations, and their interrelationships; theories of crime, punishment, and rehabilitation; ethics, education and training for professionalism in the system. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D0; (CAN AJ 2).
- 51 INTRODUCTION TO SECURITY** **2 UNITS**
 Security systems and their uses within our society. Constitutional aspects as well as Federal, State and related laws as they apply to the different agencies responsible for carrying out the systems of security. Various types of devices and locks used in security and/or protection. 2 hours. Transfer: CSU.
- 52 RETAIL SECURITY** **2 UNITS**
 Retail security in relation to inventory shortages and their investigation. Organization and responsibilities of those involved in retail security. 2 hours.
- 53 INDUSTRIAL SECURITY** **2 UNITS**
 Industrial security including history, agencies, controls, problems, responsibilities and security devices related to the field. 2 hours.

54 INVESTIGATIVE REPORTING **3 UNITS**
 Investigative reports with emphasis upon accuracy and details necessary. Includes arrest reports, incident reports, and miscellaneous field reports. Techniques and methods used to cover information; how to analyze and present information in a clear and concise report. Prerequisite: Administration of Justice 60 (*completed with a grade of "C" or higher*). 3 hours.

55 INTRODUCTION TO CORRECTIONAL SCIENCE **3 UNITS**
 Aspects of modern correctional process as utilized in rehabilitation of adult and juvenile offenders. Emphasis on custody, rehabilitation and treatment programs as recognized by modern penology. Exploration of career opportunities. 3 hours. Transfer: CSU.

56 FUNDAMENTALS OF CRIME AND DELINQUENCY **2 UNITS**
 Survey of the sociological and psychological theories pertaining to the causation of crime and delinquency. Includes ethnic considerations and their relationships. 2 hours. Transfer: CSU, UC.

57 COMMUNITY AGENCIES AND TREATMENT **2 UNITS**
 Correctional agencies and programs at local, state and federal levels, includes aspects of organization and administration. Control and treatment of juveniles and adults in modern society in the correctional setting. 2 hours. Transfer: CSU.

58 DELINQUENCY PREVENTION – A FAMILY APPROACH **2 UNITS**
 Family's role in creating and perpetuating delinquency (criminality). Responsibility and reasons for supporting anti-social behavior. Development of a practical model for preventing continuing delinquency. 2 hours. Transfer: CSU.

59 CHILD ABUSE IN THE COMMUNITY **2 UNITS**
 Dynamics of the battered child syndrome. Focus on the abusive caretaker, patterns of abuse, and means necessary for effective intervention and treatment including effective legal and social action to control child abuse in the community. 2 hours. Transfer: CSU.

60 CRIMINAL LAW **3 UNITS**
(Included in CORE curriculum of baccalaureate degree-granting institutions.)
 Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; frequently used Penal and other code sections; case law, methodology, and concepts of law as a social force. Prerequisite: Administration of Justice 50 (may be taken concurrently). 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D8; (CAN AJ 4).

61 EVIDENCE **3 UNITS**
(Included in CORE curriculum of baccalaureate degree-granting institutions.)
 Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. Prerequisite: Administration of Justice 60 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

62 THE JUSTICE SYSTEM **3 UNITS**
(Included in CORE curriculum of baccalaureate degree-granting institutions.)
 Role and responsibilities of each segment within the Administration of Justice System: law enforcement, judicial, corrections. Past, present and future exposure to each sub-system procedure from initial entry to final disposition and the relationship each segment maintains with its system members. Prerequisite: Administration of Justice 50 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC.

- 63 CRIMINAL INVESTIGATION** **3 UNITS**
(*Police Academy does not satisfy prerequisite.*)
Fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interviews and interrogation; follow up and case preparation of specific crimes. Prerequisite: Administration of Justice 61 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU (CAN AJ 8) .
- 64 PATROL PROCEDURES** **3 UNITS**
(*Police Academy does not satisfy prerequisite.*)
Responsibilities, techniques of observation, community relations and methods of police patrol. Emphasis on legal and practical aspects. Prerequisite: Administration of Justice 61 (*completed with a grade of "C" or higher*). 3 hours.
- 65 TRAFFIC RULES AND INVESTIGATION** **3 UNITS**
(*Police Academy does not satisfy prerequisite.*)
Traffic law enforcement, regulation and control; fundamentals of traffic accident investigation; California Vehicle Code. Prerequisite: Administration of Justice 61 (*completed with a grade of "C" or higher*). 3 hours.
- 66 JUVENILE PROCEDURES** **2 UNITS**
Organization, functions, and jurisdiction of juvenile agencies; processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. Prerequisite: Administration of Justice 50. 2 hours. Transfer: CSU.
- 67 DEFENSIVE TACTICS** **2 UNITS**
(*Police Academy does not satisfy prerequisite.*)
Protection against persons armed with dangerous and deadly weapons; demonstration and drill in a limited number of holds and come alongs; restraint of prisoners and the mentally ill; fundamental use of the baton safety procedures. Prerequisite: Administration of Justice 63 or 64 (*completed with a grade of "C" or higher*). 1 hour lecture, 3 hours laboratory.
- 69 SEX CRIME INVESTIGATION** **3 UNITS**
Sexual assault investigations; human behavior in relation to sexual attitudes and behavior; sexual assault laws and investigations; interview and interrogation techniques; court preparation and trial phase; sex crime prevention. 3 hours.
- 70 COMMUNITY RELATIONS** **3 UNITS**
Roles of the Administration of Justice practitioners and their agencies. Interrelationships and role expectations among various agencies and the public. Emphasis on the professional image of the system of Justice Administration and development of positive relationships between members of the system and the public. 3 hours. Transfer: CSU, UC.
- 71 NARCOTICS AND DRUG ENFORCEMENT** **2 UNITS**
Local, state and federal narcotics problems and laws; application of investigative procedures and the work and methods of special narcotics units; method of locating and apprehending violators; the use of informants and undercover persons. Prerequisite: Administration of Justice 61 (*completed with a grade of "C" or higher*). 2 hours.
- 72 CRISIS INTERVENTION** **2 UNITS**
Domestic relations problems as seen by agency personnel in the justice field; causes of marital disputes and tools for diagnosis of their severity and potential danger; effective intervention techniques, both legal and social. 2 hours. Transfer: CSU.
- 73 OFFICER SURVIVAL** **1 UNIT**
Techniques for defensive officer survival; assaults against police and related incidents; training in techniques of survival. 1 hour.

*Or equivalent.

- 74 GANGS AND DRUGS** **2 UNITS**
Definition of a gang and gang activity. Historical and cultural aspects. Interrelationships among local, national and international gangs including prison gangs. Gang activity in relation to drug trafficking. Prerequisite: Administration of Justice 50 (*completed with a grade of "C" or higher*). 2 hours.
- 75 SECURITY FIREARMS QUALIFICATION** **1/2 UNIT**
Moral, legal aspects, civil and criminal liability of firearm use on the job. Emphasis on effective use of the firearm includes minimal qualification of actual firing on the range. 14 total hours.
- 76 BATON TRAINING FOR SECURITY GUARDS** **1/2 UNIT**
Legal uses of the baton, emphasis on appropriate and legal use of the baton. Exercising self-discipline in the use of the baton. Includes training and demonstration of techniques. 12 total hours.
- 77 POWERS TO ARREST** **1/2 UNIT**
Legal authority in powers to arrest; differences between detention and arrest. Designed for Security Guards to meet the California State law requirements. 9 total hours.
- 79 HOMICIDE INVESTIGATION** **3 UNITS**
Process of analysis of all aspects of the death case in order to arrive at the true cause and manner of the death, whether it be murder, suicide, accidental or natural. Emphasis on importance of the death scene related to investigation of course. Prerequisite: Administration of Justice 50 (*completed with a grade of "C" or higher*). 3 hours.
- 84 INTERVIEWING INTERROGATION** **1 UNIT**
Techniques involved in interviewing and in interrogation of people. Methods involved and various approaches utilized in these techniques. Prerequisite: Administration of Justice 61 (may be taken concurrently). 1 hour.
- 86 POLICE COMPUTER NETWORKS** **2 UNITS**
Processing methods, systems, and equipment used in data processing with emphasis on the Police Computer Networks consisting of input, retrieval, updating and deletion of items. 2 hours.
- 89 FAMILY VIOLENCE** **2 UNITS**
Origins of violence in the family from the administration of justice perspective. Specific types of violent interactions and abuse among family members. Emphasis on techniques for use by peace officers to intervene effectively. 2 hours. Transfer: CSU.
- 90 RESERVE MODULE A: ARREST AND CONTROL** **4 UNITS**
Ethical considerations concerning arrest; laws of arrest; search and seizure; methods of arrest; investigation and communications; law enforcement ethics. Designed to satisfy the 1993 revised requirements of Penal Code 832. 4 hours.
- 91 RESERVE MODULE A: FIREARMS** **1 1/2 UNITS**
Ethical considerations concerning the use of firearms. Firearms safety. Techniques of shooting and range qualification. Prerequisite: Administration of Justice 90 (*completed with a grade of "C" or higher*). 24 total hours.
- 92 RESERVE MODULE B, PART I:
ROLE OF THE BACKUP OFFICER** **3 UNITS**
Elements involved in backing up another officer. Professional orientation; communications; criminal law; traffic stops; custody issues; patrol. Designed to meet part of Module B for the Level II Reserve Peace Officer. Certified by the California Commission on Peace Officer Standards and Training. Prerequisite: Administration of Justice 90 (completed with a grade of "C" or higher) and Administration of Justice 91. 2 hours lecture, 3 hours laboratory.

**93 RESERVE MODULE B, PART II:
ROLE OF THE BACKUP OFFICER 4 UNITS**

Elements involved in backing up another officer; vehicle operations; First Aid/ CPR; force and weaponry and remediation of skills. Designed to meet part of Module B for the Level 11 Reserve Peace Officer. Certified by the California Commission on Peace Officer Standards and Training. Prerequisite: Administration of Justice 92. 2 hours lecture, 6 hours laboratory.

94 RESERVE MODULE C 5 UNITS

Professional orientation; police community relations; patrol procedures; domestic violence; laws of evidence; traffic issues; criminal investigation. Designed to meet the legal requirements for Module C for Level I Reserve Peace Officer. Certified by the California Commission on Peace Officer Standards and Training. Prerequisites: Administration of Justice 93 (completed with a grade of "C" or higher). 5 hours.

ADMINISTRATION ASSISTANT

(See Computer Applications Systems)

ANATOMY

(See Biological Sciences)

ANTHROPOLOGY (ANTH)**1 PHYSICAL ANTHROPOLOGY 3 UNITS**

Humans as a biological species through an examination of the fossil evidence for human evolution, behavior of nonhuman primates, and human evolutionary biology and genetics. Emphasis on uniquely human biological and behavioral characteristics, as well as those shared with other animals. Current anthropological issues such as the biological meaning of race, genetic diseases, and the influence of evolution on human behavior. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: B2, D1; IGETC: Area 4, 5B; (CAN ANTH 2).

1L PHYSICAL ANTHROPOLOGY LABORATORY 1 UNIT

Laboratory exercises developed as an adjunct to Anthropology I (introduction to Physical Anthropology) including the identification of fossils through examination of fossil casts, the study of human artifacts, observation of primate behavior and structure, and problem solving in case studies of human genetics. Prerequisite: Anthropology I (may be taken concurrently). 3 hours laboratory. Transfer: CSU, UC; AA/AS, CSU/GE: B3; IGETC: Area 5B LAB.

**2 INTRODUCTION TO ARCHAEOLOGY:
PREHISTORY AND CULTURE GROWTH 3 UNITS**

Prehistoric development of human culture through studies of stone tools and other remains of the earliest human lifeways up to the growth of technologically advanced civilizations. Emphasis on modern archaeological theories and techniques for understanding cultural adaptation to different ecological conditions in the past. Review of important archaeological case studies. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D1; IGETC: Area 4; (CAN ANTH 6).

3 SOCIAL AND CULTURAL ANTHROPOLOGY 3 UNITS

How human beings in different cultures meet basic biological, social and cultural needs, including kinship and marriage practices, political and social organization, economic institutions, religious and childrearing practices, social change, as well as other aspects of cultural behavior. Emphasis on understanding other cultures on their own terms. Includes the many subcultures making up North American populations. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D1; IGETC: Area 4; (CAN ANTH 4).

**5 CULTURES OF THE U.S.: ANTHROPOLOGICAL
PERSPECTIVES OF U.S. RACE, CLASS,
GENDER AND ETHNICITY 3 UNITS**

Issues relevant to understanding race, class, gender and ethnicity within the American setting. Historical as well as contemporary situation of the following groups: 1) African Americans; 2) Native Americans; 3) Hispanic Americans; 4) European Americans; and 5) Asian Americans, among other groups. Emphasis on analyzing the way that public understandings of culture and biology are translated into social policy. Contemporary social issues such as race relations, multiculturalism, affirmative action, bilingual education, and the use and abuse of IQ. testing. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D1, D3; IGETC: Area 4.

8 NATIVE AMERICAN CULTURES 3 UNITS

Survey of the Native American cultures of North America from an anthropological perspective, including cultural developments from pre-history to the present. Emphasis on the great variety of Native American perspectives and traditions, including kinship, religion, political, social and economic institutions, and attitudes towards humans, animals, and nature. Current issues including movements for social and political justice and cultural survival. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D1, D3; IGETC: Area 4.

12 MAGIC, RELIGION, WITCHCRAFT AND HEALING 3 UNITS

Cross-cultural perspectives on spirituality, religious practice, myth, ancestor beliefs, witchcraft and the variety of religious rituals and practitioners found in the cultures of the world. Examination of the cosmologies of different cultures through the anthropological perspective. Emphasis is placed on how knowledge of the religious practices and beliefs of others can help us to understand the multicultural world in which we live. Comparison of the ways in which diverse cultures confront the large and fundamental questions of existence: those dealing with the meaning of life, birth and death, and with the relationship of humans to each other and to their universe. 3 hours. Transfer: CSU, UC; AA/AS; CSU/GE: D1, D3; IGETC: Area 4.

APPRENTICESHIP

Each and every apprenticeship program approved for offering in California has a "Related Instruction" component to accompany the on-the-job training associated with that particular apprenticeship. The Instruction is offered by a local educational agency, usually a community college, in cooperation with a local Joint Apprenticeship Committee who has operational responsibility for the apprenticeship program. Each registered apprentice takes classes covering such topics as principles and practices of the occupation, laws, relating to the workers, safety procedures, tools and equipment of the trade, communications, mathematics and science. Chabot College is approved by the Chancellor's Office, California Community Colleges, to offer Related Instruction for the following programs:

- Automotive Apprenticeship
- Electrical Apprenticeship
- Roofing Apprenticeship
- Sound & Communications Apprenticeship
- Telecommunications Apprenticeship

To enroll as an apprentice or inquire about VA benefits for apprentices, a person must contact the Joint Apprenticeship Committee for the individual trade. For information on how to contact a Joint Apprenticeship Committee, call the Chabot College Division of Business & Workforce Development at 510.723.6653.

ARCHITECTURE (ARCH)

ARCHITECTURE COURSES RECOMMENDED FOR TRANSFER

RECOMMENDED COURSES

This recommendation is based on the classes accepted for transfer by California State Colleges and Universities. These courses are designed to satisfy lower-division major requirements at four-year institutions. Variations in requirements exist as specific universities or for specific programs. Therefore, it is essential that students refer to catalogs of proposed universities and consult counselors and architecture faculty as they prepare their programs. The classes listed represent a minimum for most schools; additional courses will improve level of preparation. This recommended course list assumes high school preparation including Trigonometry, Pre-calculus Mathematics, Physics, Art, and English.

FRESHMAN YEAR	FALL	SPRING
Architecture 2A		
(Architectural Drawing and Graphics I)	3	
Architecture 31A (Photoshop I)	1.5	
Architecture 32A (Illustrator I)	1.5	
Architecture 68		
(AutoCAD for Architecture and Interior Design) . . .	3	
Mathematics 1 (Calculus I)	5	
Architecture 2B		
(Architectural Drawing and Graphics II)	3	
Architecture 33 (3-D Modeling with Form•Z)	3	
Architecture 14		
(California Architecture and Urban Design)	3	
Mathematics 2 (Calculus II)	5	

SOPHOMORE YEAR	FALL	SPRING
Architecture 4A		
(Architectural Drafting Principles I)	3	
Architecture 8A		
(Fundamentals of Architectural Design I)	4	
Architecture 12		
(Construction Materials and Methods)	3	
Physics 4A (General Physics I)	5	
Architecture 4B		
(Architectural Drafting Principles II)	3	
Architecture 8B		
(Fundamentals of Architectural Design II)	4	
Architecture 16 (Landscape Architecture)	2	
Total		52

ARCHITECTURE

DEGREE:

AA – ARCHITECTURE

AS – ARCHITECTURE

Students can earn an Associate in Arts or Associate in Science degree in Architecture.

ARCHITECTURE

ASSOCIATE IN ARTS OR ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Architecture 2A		
(Architectural Drawing and Graphics I)	3	
Architecture 31 A (Photoshop I)	½	
Architecture 32A (Illustrator I)	1½	
Architecture 68		
(AutoCAD for Architecture and Interior Design) . . .	3	
Architecture 2B		
(Architectural Drawing and Graphics II)	3	
Architecture 33 (3-D Modeling with Form•Z)	3	
Architecture 14		
(California Architecture and Urban Design)	3	

SOPHOMORE YEAR	FALL	SPRING
Architecture 4A		
(Architectural Drafting Principles I)	3	
Architecture 8A		
(Fundamentals of Architectural Design I)	4	
Architecture 12		
(Construction Materials and Methods)	3	
Architecture 4B		
(Architectural Drafting Principles II)	3	
Architecture 8B		
(Fundamentals of Architectural Design II)	4	
Architecture 16 (Landscape Architecture)	2	
Total		37

General Education Courses

For Specific General Education courses refer to catalog section on Graduation Requirements

Total minimum units required **60**

ARCHITECTURE (ARCH)

2A ARCHITECTURAL DRAWING AND GRAPHICS I 3 UNITS
Introduction to freehand and mechanically constructed drawings employing orthographic, axonometric and linear perspective drawing systems to represent three-dimensional form and environments on two-dimensional surfaces. Emphasis on the understanding of basic drawing conventions, their implications and applications. Strongly recommended: Art 2A (may be taken concurrently). 2 hours lecture, 4 hours studio. Transfer: CSU, UCB; AA/AS.

2B ARCHITECTURAL DRAWING AND GRAPHICS II 3 UNITS
Continuation of the content and issues introduced in Architecture 2A plus the theories and methods for applying shadows, reflections, materials, entourage, and color in a variety of drawing types. Layout and integration of composite drawings in support of the process and presentation of architectural designs. Prerequisite: Architecture 2A (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UCB; AA/AS.

4A ARCHITECTURAL DRAFTING PRINCIPLES I**3 UNITS**

Introduction to principles and practice of architectural drafting with emphasis on working drawings for wood frame construction; introduction to drafting concepts and conventions for architectural working drawings, basic building systems, and architectural applications of computer-aided drafting technology. Prerequisite: Architecture 68 (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU; AA/AS.

4B ARCHITECTURAL DRAFTING PRINCIPLES II**3 UNITS***(May be repeated 3 times)*

Continuation of Architecture 4A with emphasis on architectural working drawings of non-residential buildings with wood, masonry, steel and concrete structures. Application of advanced computer-aided drafting techniques for architectural construction documents will be reviewed, as will the use of Internet resources, and CD-ROM based information sources, including *Architectural Graphic Standards*, *Sweets Catalogs*, and the *Uniform Building Code*. Prerequisite: Architecture 4A (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU; AA/AS.

8A FUNDAMENTALS OF ARCHITECTURAL DESIGN I**4 UNITS**

Introduction to the theories, principles, and methods of architectural design using traditional and digital media. Studio projects emphasize composing two- and three-dimensional organizations to convey intended concepts and meanings. Aesthetic, environmental, social, and technological factors which inform architectural design are investigated. Course work is supplemented with lectures, discussions, and readings. Prerequisite: Architecture 2B, 31A, 32A, 33 (*all completed with a grade of "C" or higher*). 3 hours lecture, 3 hours studio. Transfer: CSU, UCB.

8B FUNDAMENTALS OF ARCHITECTURAL DESIGN II**4 UNITS**

Continuation of the content and issues introduced in Architecture 8A. Emphasis on generating and developing design concepts, incorporating structure, materials, and energy considerations as determinants of form. Emphasis on applied traditional and digital graphic communications tools, including scale models to convey intended concepts and meanings. Prerequisite: Architecture 8A (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours studio. Transfer: CSU, UCB; AA/AS.

12 CONSTRUCTION MATERIALS AND METHODS**3 UNITS**

Introduction to the methods and materials used in contemporary and historical building construction. Wood, steel, masonry, and concrete structural systems will be explored, as will major interior and exterior finish systems. The relationships between occupancy and construction types will be reviewed as will the influence of building codes, climate, labor supply, and economic factors. 3 hours. Transfer: CSU, AA/AS.

14 CALIFORNIA ARCHITECTURE AND URBAN DESIGN**3 UNITS**

California architecture and urban design from indigenous beginnings to the contemporary avant garde. Historic, cultural, and environmental influences in the shaping of California's distinctive buildings and cities. Work reviewed ranges from anonymous adobes to historic masterpieces by Maybeck and Morgan to new works by Gehry, Moss, and others. 3 hours. Transfer: CSU, UCB; CSU/GE: C1; AA/AS.

16 LANDSCAPE ARCHITECTURE**2 UNITS**

Principles of landscape architecture emphasizing design concepts as they relate to site, building, and client requirements. Includes site analysis, land use patterns, circulation, layout, planting materials, irrigation, and the general design process. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UCB; AA/AS.

20 ARCHITECTURE OF THE SPIRIT**3 UNITS**

Architecture and the traditions of sacred buildings from around the world. Exploration of designs in the context of beliefs, rituals, and ceremonies. 3 hours. Transfer: CSU; US; CSU/GE: C1; AA/AS.

31A PHOTOSHOP I**1 1/2 UNITS***(See also Art 31A, Interior Design 31A, Photography 31A)*

Introduction to the use of PhotoShop, the premiere imaging software. Overview of the PhotoShop interface, tools and menus. Projects will focus on using basic tools to compose images. Topics include file management, selections and paths, layers, masks, alpha channels, color management and mapping, digital painting and brushes. Apple Mac platform. May not receive credit if Art 31A, Interior Design 31A, or Photography 31A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

31B PHOTOSHOP II**1 1/2 UNITS***(See also Art 31B, Interior Design 31B, Photography 31B)*

Continuation of the content and skills introduced in Photography 31A, PhotoShop 1. Topics include advanced layer controls, filters, distortion and effects, drawing path tools, alpha channels, and applying text to images. Color management and Mapping. Printing fundamentals. Prerequisite: Architecture 31A (*completed with a grade of "C" or higher*). May not receive credit if Art 31B, Interior Design 31B, or Photography 31B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32A ILLUSTRATOR I**1 1/2 UNITS***(See also Art 32A, Interior Design 32A, Photography 32A)*

Introduction to the use of Illustrator, Adobe's powerful vector-based software for digital illustration. Emphasis on the basics of drawing with the shapes, pen and pencil, transformation and liquefy tools. Palettes for the control of layers, colors, patterns and gradients. Methods for the creative application of text to images. May not receive credit if Art 32A, Interior Design 32A, or Photography 32A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32B ILLUSTRATOR II**1 1/2 UNITS***(See also Art 32B, Interior Design 32B, Photography 32B)*

Continuation of the content and skills introduced in Architecture 32A, Adobe Illustrator I. Paintbrush and pattern tools and palettes, gradient mesh tools, creating and modifying clipping masks will be covered. Exploration of the powerful morphing blends and transparency tools use of symbol tools and palettes, filters and effects, and related appearance and styles palettes. Process of importing and manipulating images as elements of digital compositions. Prerequisite: Architecture 32A (*completed with a grade of "C" or higher*). May not receive credit if Art 32B, Interior Design 32B or Photography 32B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

33 3-D MODELING WITH FORM•Z**3 UNITS***(See also Art 33, Interior Design 33, Photography 33)*

Introduction to 3-dimensional digital modeling using Form•Z software. Emphasis on learning basic commands to create 3-dimensional objects including building interiors and exteriors, and defining photo-realistic views with appropriate light sources. May not receive credit if Art 33, Interior Design 33, or Photography 33 has been completed. 2 hours lecture, 4 hours studio. Transfer: CSU.

62 HOME DESIGN AND CONSTRUCTION TECHNOLOGY**2 UNITS**

Introduction to home concepts, design variations, estimating costs, financing, maintenance, and building contracts. 2 hours.

68 AUTOCAD FOR ARCHITECTURE AND INTERIOR DESIGN**3 UNITS***(May be repeated 3 times) (See also Interior Design 68)*

Introduction to computer-aided drafting using AutoCAD. Topics include command basics including drawing entity creation and modification, industry layering standards, text and dimensioning systems appropriate to architecture, creating symbol libraries, external reference techniques, model and paper space commands, and plotting techniques. (May not receive credit if Interior Design 68 has been completed.) 2 hours lecture, 4 hours studio. Transfer: CSU.

** Or equivalent.*

ART (ART)

DEGREE:

AA-ART (GENERAL)

AA-ART (EMPHASIS IN CERAMICS)

AA-ART (EMPHASIS IN PAINTING)

AA-ART (EMPHASIS IN SCULPTURE)

AA-GRAPHIC DESIGN

CERTIFICATE:

ILLUSTRATION

The art curriculum offers instruction in art theory, practice and history. These three areas of study constitute the foundation courses needed to begin a career in graphic design (for example: illustration, graphics, etc.) or fine arts (for example: painting, ceramics, etc.). The foundation courses meet prerequisite requirements to UC, CSU systems and four-year art schools.

The Graphic Design two-year diploma program provides students who have demonstrated artistic ability with practical, theoretical, and computer training in layout and design, preparation of reproduction art, printing processes, computer graphics, typography and illustration. In addition to course assignments, students are involved in projects typical of the graphic design field.

ART (GENERAL)

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 1 (Introduction to Art)	3	
Art 2A (Introduction to Drawing)	3	
Art 10 (Design and Materials)	3	
Art 2B (Drawing Color and Composition)	3	
Art 17 (Ceramic Sculpture)	3	
Art 11 (Design, Materials and Color)	3	

SOPHOMORE YEAR	FALL	SPRING
Art 12A (Oil/Acrylic Painting, Beginning I)	3	
Art 3A (Figure and Composition I)	3	
Art 4 (Art History, Ancient)	3	
Art 5 (Art History, Renaissance to Modern)	3	
Art 7A (Introduction to Watercolor Painting)	3	
Art 16A (Introduction to Ceramics I)	3	
Total		36

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

ART (EMPHASIS IN CERAMICS)

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 1 (Introduction to Art)	3	
Art 10 (Design and Materials)	3	
Art 16A (Introduction to Ceramics)	3	
Art 16B (Introduction to Ceramics II)	3	

SOPHOMORE YEAR	FALL	SPRING
Art 4 (Art History, Ancient)	3	
Art 16C (Introduction to Ceramics III)	3	
Art 5 (Art History, Renaissance to Modern)	3	
Art 16D (Ceramics Intermediate)	3	
Art 17 (Ceramic Stone Sculpture)	3	
Total		27

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

ART (EMPHASIS IN PAINTING)

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 2A (Introduction to Drawing)	3	
Art 12A (Oil/Acrylic Painting, Beginning I)	3	
Art 3A (Figure and Composition I)	3	
Art 1 (Introduction to Art)	3	
Art 2B (Drawing, Color and Composition)	3	
Art 12B (Oil/Acrylic Painting, Beginning II)	3	

SOPHOMORE YEAR	FALL	SPRING
Art 4 (Art History, Ancient)	3	
Art 12C (Oil/Acrylic Painting, Advanced I)	3	
Art 10 (Design and Materials)	3	
Art 5 (Art History, Renaissance to Modern)	3	
Art 12D (Oil/Acrylic Painting, Advanced II)	3	
Art 3B (Figure and Composition II)	3	
Art 7A (Introduction to Watercolor Painting)	3	
Total		39

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

ART (EMPHASIS IN SCULPTURE)

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 1 (Introduction to Art)	3	
Art 17 (Ceramic Sculpture)	3	
Art 10 (Design and Materials)	3	
Art 3A (Figure and Composition I)	3	
Art 18 (Wood and Stone Sculpture)		3
Art 11 (Design, Materials and Color)		3
Art 3B (Figure and Composition II)		3

SOPHOMORE YEAR	FALL	SPRING
Art 2A (Introduction to Drawing)	3	
Art 4 (Art History, Ancient)	3	
Art 19 (Metal Sculpture)	3	
Art 5 (Art History, Renaissance to Modern)		3
Art 20* (All Media Sculpture)		2
Total		35

General Education Courses
For specific General Education courses refer to catalog section
Graduation Requirements.
Total minimum units required 60

*Concurrent with Art 19.

GRAPHIC DESIGN
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 2A (Introduction To Drawing)	3	
Art 40 (Graphic Design Principles)	3	
Art 55 (Introduction To Graphic Design Careers)		2
Art 1 (Introduction To Art)		3
Art 2B (Drawing and Composition)		3

SOPHOMORE YEAR	FALL	SPRING
Art 61 (Illustration)	3	
Photography 66 (Digital Design)	3	
Art 45 (Creative Portfolio and Self-Promotion)		2
Art 50 (Introduction To Digital Design)		3
Total		25

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required 60

GRAPHIC DESIGN
CERTIFICATE OF COMPLETION

	FALL	SPRING
Art 40 (Graphic Design Principles)	3	
Art 50 (Introduction to Digital Design)	3	
Art 55 (Introduction To Graphic Design Careers)		2
Art 45 (Creative Portfolio and Self-Promotion)		2
Art 61 (Illustration)		3
Photography 66 (Digital Imaging)		3
Total		16

ILLUSTRATION
CERTIFICATE

	FALL	SPRING
Art 2A Introduction To Drawing	3	
Art 55 Introduction To Graphic Design Careers		2
Art 61 Illustration		3
Art 2B Drawing and Composition		3
Art 45 Creative Portfolio and Self-Promotion		2
Art 54 Illustrating Children's Books		3
Total		16

ART (ART)

1 INTRODUCTION TO ART 3 UNITS
Architecture, sculpture, painting, photography and design in relation to human inventiveness in providing for material and aesthetic needs; orientation to contemporary and historic art forms and principles. 3 hours. Transfer: CSU, UC; CSU/GE: CI; IGETC: Area 3; AA/AS.

2A INTRODUCTION TO DRAWING 3 UNITS
Skills development in light and shade composition, perspective, and other basics. The use of pencil, charcoal, and/or ink. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; CSU/GE: CI; AA/AS; (CAN ART 8).

2B DRAWING AND COMPOSITION 3 UNITS
Development of knowledge and skills introduced in Art 2A, emphasizing media and composition and introducing the use of color. Prerequisite: Art 2A (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

3A FIGURE AND COMPOSITION I 3 UNITS
Skill development drawing the figure with charcoal, conte, pencil, and ink with emphasis on composition. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; CSU/GE: CI; AA/AS. (CAN ART 24)

3B FIGURE AND COMPOSITION II 3 UNITS
Development of knowledge and skills introduced in Art 3A, emphasis on composition and color. Prerequisite: Art 3A (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

3C FIGURE AND COMPOSITION III 3 UNITS
Development of knowledge and skills introduced in Art 3B, emphasis on composition and color. Prerequisite: Art 3B (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

3D FIGURE AND COMPOSITION IV 3 UNITS
Development of knowledge and skills introduced in Art 3C. Drawing the figure with charcoal, conte, graphite, ink, watercolor, pastels, tempera and oils with emphasis on composition and color. Prerequisite: Art 3C (completed with a grade of "C" or higher). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

- 4 ART HISTORY—ANCIENT 3 UNITS**
History of Western art from prehistoric times through Egyptian, Mesopotamian, Aegean, Greek, Etruscan, Roman, Early Christian, Byzantine, Medieval, Romanesque, and Gothic civilizations. 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS; (CAN ART 2); with ART 5: (CAN ART SEQA).
- 5 ART HISTORY—RENAISSANCE TO MODERN 3 UNITS**
History of Western art from Early Renaissance, High Renaissance, Mannerism, Baroque, Neoclassicism, Romanticism, Realism, Impressionism, Post-Impressionism, 20th Century developments of American art. 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS; (CAN ART 4); with ART 4: (CAN ART SEQ A).
- 6 MUSEUM STUDIES 3 UNITS**
Historical overview of museums and practical, hands-on instruction in the skills needed by museum and gallery workers. Held in Chabot's student art gallery with visits to local museums, galleries and historical societies. Students learn the important social role of museums, as well as the skills of art handling, curating, registration, preparation, exhibition and art education. Culminates in the hanging of an on-campus art exhibition. Strongly recommended: eligibility for English 1A. 2 hours lecture, 4 hours laboratory. Transfer: CSU; CSU/GE: CI; AA/AS.
- 7A INTRODUCTION TO WATERCOLOR PAINTING 3 UNITS**
Materials, methods, and techniques of transparent watercolor painting, including its effects and possibilities. Strongly recommended: Art 2A and 2B. 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 7B WATERCOLOR PAINTING 3 UNITS**
Development of knowledge and skills introduced in Art 7A. Emphasis on experimenting with the watercolor medium leading to development of individual methods of expression. Prerequisite: Art 7A (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 7C ADVANCED WATERCOLOR PAINTING I 3 UNITS**
Development of knowledge and skills introduced in Art 7B directed towards individualized needs. Prerequisite: Art 7B (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 7D ADVANCED WATERCOLOR PAINTING II 3 UNITS**
Development and knowledge and skills introduced in Art 7C directed towards individualized needs. Prerequisite: Art 7C (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 10 DESIGN AND MATERIALS 3 UNITS**
Introduction to the basic elements of design: line, texture, value, shape, color, light, and spatial concepts. Experimentation with paper, cardboard, cloth, etc. Emphasis on two dimensional design. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; CSU/GE: C1; AA/AS; (CAN ART 14).
- 11 DESIGN, MATERIALS, AND COLOR 3 UNITS**
Color theory as it applies to two and three dimensional design. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; CSU/GE: C1; (CAN ART 22).
- 12A OIL/ACRYLIC PAINTING—BEGINNING I 3 UNITS**
Beginning projects in oil or acrylic painting with an emphasis on fundamental painting techniques and approaches. Strongly recommended: Art 2A*. 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 12B OIL/ACRYLIC PAINTING—BEGINNING II 3 UNITS**
Projects in oil or acrylic painting with an emphasis on fundamental painting techniques and approaches. Prerequisite: Art 12A* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

*Or equivalent.

- 12C OIL/ACRYLIC PAINTING—ADVANCED I 3 UNITS**
Advanced projects in oil or acrylic painting with emphasis on individual creative work and development of personal ideas and style. Prerequisite: Art 12B* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 12D OIL/ACRYLIC PAINTING—ADVANCED II 3 UNITS**
Advanced projects in oil or acrylic painting with emphasis on individual creative work and development of personal ideas and style. Prerequisite: Art 12C* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 13A ACRYLIC PAINTING—BEGINNING I 3 UNITS**
Projects in acrylic painting with an emphasis on fundamental painting techniques. Strongly recommended: Art 2A*. 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 13B ACRYLIC PAINTING—BEGINNING I 3 UNITS**
Projects in acrylic painting with an emphasis on fundamental painting techniques. Prerequisite: Art 2A*, 12A* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 13C ACRYLIC PAINTING—ADVANCED I 3 UNITS**
Advanced projects in acrylic painting with emphasis on individual creative work and development of personal ideas and style. Prerequisite: Art 12B*, 13B* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 13D ACRYLIC PAINTING—ADVANCED II 3 UNITS**
Advanced projects in acrylic painting with emphasis on individual creative work and development of personal ideas and style. Prerequisite: Art 12C*, 13C* (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 16A INTRODUCTION TO CERAMICS I 3 UNITS**
Introduction to the fundamental techniques of wheel thrown and hand constructed clay forms. Survey of clay and glaze materials and their reaction to fire. Introduction to the methods of decorating leather-hardware. 2 hours lecture, 4 hours studio. Transfer: CSU, UC; AA/AS; (CAN ART 6)
- 16B INTRODUCTION TO CERAMICS II 3 UNITS**
Further development of the technical skills of wheel thrown and hand constructed clay forms. Continued exploration of surface decoration using various glazing techniques and methods of slip decoration. Prerequisite: Art 16A (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 16C INTRODUCTION TO CERAMICS III 3 UNITS**
Further development of technical skills with emphasis on the creative expression of form. Introduction to kiln loading and firing. Continued development of various hand constructed clay forms. Prerequisite: Art 16B (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 16D CERAMICS—INTERMEDIATE 3 UNITS**
(*May be repeated 2 times*)
Further development of technical skill of wheel thrown and hand constructed clay forms. Glaze exploration and experimentation. contemporary ceramic history. Prerequisite: Art 16C (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio. Transfer: CSU, UC.
- 17 CERAMIC SCULPTURE 3 UNITS**
(*May be repeated 1 time*)
Construction methods in clay through design of three dimensional and relief sculptures. Includes an introduction to contemporary ceramic art history and fundamentals of firing procedures. 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC; CSU/GE: C1; AA/AS.

18 WOOD AND STONE SCULPTURE 3 UNITS

Investigation into basic materials of sculpture and their application in-the-round and in relief forms. Wood and stone are the primary materials. 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

19 METAL SCULPTURE 3 UNITS

Introduction to techniques of metal sculpture-welding, forging, brazing, and casting of various metals. Application to sculptural forms in relief and three dimensional statements. Strongly recommended: Art 10 and 17. 2 hours lecture, 4 hours studio. Transfer: CSU.

20 ALL MEDIA SCULPTURE 2 UNITS

(May be repeated 3 times)

Concentrated individual studies in sculpture. designed to provide opportunity for continued investigation in the possibilities of a particular sculptural medium for the purpose of creating individual expression. Repeatable for credit if medium is changed and appropriate recommended courses are completed. 1 hour lecture, 3 hours studio. Transfer: CSU, UC; CSU/GE: CI.

23 CHINESE BRUSH PAINTING 3 UNITS

Traditional and contemporary techniques and concepts of brush painting. Includes rice-paper, silk, brushes, ink and watercolor. Examination of masterpieces of Taoism, meditation, calligraphic gesture, two-dimensionality and shifting perspective. Flowers and landscape are main subjects. 2 hours lecture, 4 hours studio. Transfer: CSU, UC.

31A PHOTOSHOP I 1½ UNITS

(See also Architecture 31A, Interior Design 31A, Photography 31A)

Introduction to the use of PhotoShop, the premiere imaging software. Overview of the PhotoShop interface, tools and menus. Projects will focus on using basic tools to compose images. Topics include file management, selections and paths, layers, masks, alpha channels, color management and mapping, digital painting and brushes. Apple Mac platform. May not receive credit if Architecture 31A, Interior Design 31A, or Photography 31A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

31B PHOTOSHOP II 1½ UNITS

(See also Architecture 31B, Interior Design 31B, Photography 31B)

Continuation of the content and skills introduced in Photography 31A, PhotoShop 1. Topics include advanced layer controls, filters, distortion and effects, drawing path tools, alpha channels, and applying text to images. Color management and Mapping. Printing fundamentals. Prerequisite: Art 31A *(completed with a grade of "C" or higher)*. May not receive credit if Architecture 31B, Interior Design 31B, or Photography 31B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32A ILLUSTRATOR I 1½ UNITS

(See also Art 32A, Interior Design 32A, Photography 32A)

Introduction to the use of Illustrator, Adobe's powerful vector-based software for digital illustration. Emphasis on the basics of drawing with the shapes, pen and pencil, transformation and liquefy tools. Palettes for the control of layers, colors, patterns and gradients. Methods for the creative application of text to images. May not receive credit if Architecture 32A, Interior Design 32A, or Photography 32A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32B ILLUSTRATOR II 1½ UNITS

(See also Art 32B, Interior Design 32B, Photography 32B)

Continuation of the content and skills introduced in Architecture 32A, Adobe Illustrator I. Paintbrush and pattern tools and palettes, gradient mesh tools, creating and modifying clipping masks will be covered. Exploration of the powerful morphing blends and transparency tools use of symbol tools and palettes, filters and effects, and related appearance and styles palettes. Process of importing and manipulating images as elements of digital compositions. Prerequisite: Art 32A *(completed with a grade of "C" or higher)*. May not receive credit if Architecture 32B, Interior Design 32B or Photography 32B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

33 3-D MODELING WITH FORM•Z 3 UNITS

(See also Art 33, Interior Design 33, Photography 33)

Introduction to 3-dimensional digital modeling using Form•Z software. Emphasis on learning basic commands to create 3-dimensional objects including building interiors and exteriors, and defining photo-realistic views with appropriate light sources. May not receive credit if Architecture 33, Interior Design 33, or Photography 33 has been completed. 2 hours lecture, 4 hours studio. Transfer: CSU.

40 GRAPHIC DESIGN PRINCIPLES 3 UNITS

Problems and processes in visual communication through graphic design. Use of computer as an electronic design tool along with basic manual techniques relating to effective preparation and presentation. 2 hours lecture, 4 hours studio. Transfer: CSU.

41 APPLIED GRAPHIC DESIGN 3 UNITS

Application of concepts in layout and design of printed products. Solving graphic design problems through creative manual and computer techniques. Design principles applied to specific exercises in creation of corporate signage, brochures, posters, and packages for mass printing production. Pre-press considerations and the inter-relations between illustration, design, and type. Prerequisite: Art 40 *(completed with a grade of "C" or higher)*. 2 hours lecture, 4 hours studio.

43 TYPOGRAPHY AND PUBLICATION DESIGN 3 UNITS

Layout and overall pre-press design process in preparing publications. Application of type styles and typographical design for graphic communication products from brochures and books to posters and magazine spreads. Includes work with computers on major page design software. Strongly recommended: Art 40. 2 hours lecture, 4 hours studio. Transfer: CSU.

45 CREATIVE PORTFOLIO AND SELF-PROMOTION 2 UNITS

Development and refining of artist's portfolio and strategies for self-promotion of ideas and skills to work effectively in the design world. Development of effective techniques of presentation. Selection, updating and highlighting of individual skills to present artist's portfolio to the best advantage. 2 hours lecture, 1 hour studio. Transfer: CSU.

47 COLOR IN GRAPHIC DESIGN 3 UNITS

Applied color theory and application of color as an element for communication and expression. Includes color expression, color theory, color interaction, and color reproduction, as well as the four-color process and pre-press considerations. 2 hours lecture, 4 hours studio. Transfer: CSU.

48 PERSPECTIVE DRAWING 3 UNITS

Theory and practice of perspective in drawing and painting. Includes history, concepts and variations on the use of different mediums of perspective drawing. 2 hours lecture, 4 hours studio. Transfer: CSU.

50 INTRODUCTION TO DIGITAL DESIGN 3 UNITS

Introduction to computer hardware and software fundamentals for the graphic designer. Operations of the Macintosh computer (or system with equivalent functionality) and the current software applications for projects in graphic design. 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC.

52 CURRENT TOPICS IN DIGITAL DESIGN 3 UNITS

Current processes, equipment and trends of the medium as it applies to graphic designing. Aesthetic and technical issues relevant to working in today's electronic image-making environment. Strongly recommended: Art 50. 2 hours lecture, 4 hours laboratory. Transfer: CSU.

**Or equivalent.*

54 ILLUSTRATING CHILDREN'S BOOKS**3 UNITS***(May be repeated 3 times)*

Creation of two different children's books in any medium. Overview of the field of illustrating children's books. The relationship between words and images, page layout, character development, and illustration styles. Illustrate existing books or students' own stories. 2 hours lecture, 4 hours studio. Transfer: CSU; AA/AS.

55 INTRODUCTION TO GRAPHIC DESIGN CAREERS**2 UNITS**

Opportunities in graphic design. Presentation of art work by design specialists highlighting a variety of careers and opportunities in the graphic design industry. Speakers may include designers, art directors, illustrators, and others in the graphic design industry. 2 hours. Transfer: CSU.

60 ADVERTISING PRODUCTION**3 UNITS**

Advertising layout and paste-up idea from rough layout through camera-ready copy; color separation overlays. Introduction to the Macintosh computer and software. 2 hours lecture, 4 hours studio. Transfer: CSU.

61 ILLUSTRATION**3 UNITS**

Creation and execution of conceptual ideas in illustration. Includes a variety of mediums and contemporary application styles. Emphasis on skills in draftsmanship, craftsmanship and presentation. Strongly recommended: Art 40. 2 hours lecture, 4 hours laboratory. Transfer: CSU.

62 LETTERING**3 UNITS**

Basic typography, lettering layout and design, use of mechanical lettering sheets, use of brush and pen. Emphasis on clear and precise design of the commercial product. Use of the computer to generate copy. 2 hours lecture, 4 hours studio.

63 CARTOONING**3 UNITS**

Cartooning history and development. Construction of the comic figure, expressions, and situations. Theory of humorous drawings. Strongly recommended: Art 55, 60. 2 hours lecture, 4 hours studio.

65 PRESENTATION ART**3 UNITS**

Development of a professional portfolio. Resume writing, job search methods and interviewing techniques. Strongly recommended: Art 40, 41, 43 and 50. 2 hours lecture, 4 hours studio. Transfer: CSU.

67 HISTORY OF PHOTOGRAPHY**3 UNITS***(See also Photography 67)*

A broad chronological survey of photography from its invention to the present. Considers the medium's dual role as technology and art. Addresses a multiplicity of photographic themes and purposes. Considers the intersections of photography and technology, history, art, and everyday life. May not receive credit if Photography 67 has been completed. 3 hours. Transfer: CSU; UC; CSU/GE: CI; IGETC: Area 3; AA/AS.

**95 COMMERCIAL ART WORK<
EXPERIENCE EDUCATION****1-2 UNITS***(May be repeated 3 times)*

College supervised on-the-job training for students working in an occupation related to their major for educational and occupational goals. Training may be either paid or volunteer work experience. Students through the cooperation of their supervisor, contract to accomplish new learning objectives or broadening experiences for each semester enrolled. Strongly recommended: enrollment in any commercial art class. Corequisite: Art 96. 5-10 hours or more of employment per week. Transfer: CSU.

96 WORK EXPERIENCE SEMINAR<**1 UNIT***(May be repeated 3 times)*

Focal point for the coordination of the student's curriculum with college supervised part-time or full-time employment in the student's major field. Case studies, job related problems, student cases and presentations, and material related to employment, organizations and management are discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Corequisite: Art 95. 1 hour. Transfer: CSU.

◊ Refer to page 14 for program requirements

ASTRONOMY (ASTR)**1 PRINCIPLES OF ASTRONOMY
AND ASTROPHYSICS****3 UNITS**

Includes planets, their motions, the sun and stars, stellar structure and evolution, black holes, galaxies, and cosmology. A companion science lab, Astronomy 30 is available. Strongly recommended: Mathematics 36 and Physics 2A, 4A or 10. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A; AA/AS.

**10 INTRODUCTION TO ASTRONOMY:
THE SOLAR SYSTEM****3 UNITS**

Introduction to history and physical principles of astronomy, focusing on our Solar System. Includes view of heavens, historical development of scientific models of the sky, telescopes, formation and evolution of the solar system, and the possibilities for life in space. Designed for non-majors in mathematics or physical science. A companion science lab, Astronomy 30, is also available. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A; AA/AS.

**20 INTRODUCTION TO ASTRONOMY:
STARS AND THE UNIVERSE****3 UNITS**

Introduction to the study of stars, galaxies, and cosmology. Includes motions of the sky, constellations, the nature of light, telescopes, spectroscopy, stellar formation and evolution, galaxies, quasars, and cosmology. Designed for non-majors in mathematics or a physical science. May be offered in Distance Education delivery format. A companion science lab, Astronomy 30, is also available. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A; AA/AS.

30 INTRODUCTION TO ASTRONOMY LAB**1 UNIT**

Introduction to laboratory principles and techniques in astronomy. Includes telescope operation and measuring stellar magnitudes, spectral lines, motions of the sun, moon and planets. Prerequisite/Corequisite: Astronomy 1, 10, or 20. 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B3; IGETC: Area 5A & Lab; AA/AS.

40 OBSERVATIONAL ASTRONOMY**1 UNIT**

Fundamentals of observing the sky with and without telescopes; constellations, major and minor planets, meteors and comets, moon and sun. 1 hour lecture, 1 hour laboratory. Transfer: CSU.

50 CONSTELLATIONS AND THE NIGHT SKY**1/2 UNIT**

Introduction to the night sky, motions of the stars and planets, and constellations visible during the year. Mythology of constellations and star names. Applications of the scientific method studying the motions of the stars. May not be taken for credit if Astronomy 10 or 20 have been successfully completed. 10 total hours. Transfer: CSU.

AUTOMOTIVE TECHNOLOGY (AUTO)**DEGREE**

AS—AUTOMOTIVE DIAGNOSTIC TECHNOLOGY
AS—AUTOMOTIVE TECHNOLOGY

CERTIFICATE OF ACHIEVEMENT:

AUTOMOTIVE MECHANICS
AUTOMOTIVE SERVICE
AUTOMOTIVE TECHNOLOGY

The automotive technology program prepares the student for employment in many areas of the automotive field, including dealerships, independent garages, fleet shops, service stations, and specialty shops. Students enrolling in the curriculum of automotive mechanics will have the opportunity to receive instruction and "hands-on" experience in all areas of mechanical and electrical diagnostic systems and repair of current automobiles.

Automotive courses meet the needs of the beginner, the mechanic who wants to update skills and the do-it-yourself person. The automotive programs may also help students enter the automotive field in positions other than auto mechanic. The automotive department offers two two-year associate of applied science degrees, two one year technical certificates, and one two-year certificate.

AUTOMOTIVE DIAGNOSTIC TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50 (Introduction to the Auto Industry)		2
Automotive Technology 60A (Automotive Electrics/Electronics I)		4
Automotive Technology 61A (Fuel Induction, Emission, and Computer Control Systems I)		4
Automotive Technology 60B (Automotive Electrics/Electronics II)		4
Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II)		4
Automotive Technology 62 (Automotive Air Conditioning Cooling and Heating Systems)		2½
Welding Technology 70 (Introduction to Welding)		2

SOPHOMORE YEAR	FALL	SPRING
Automotive Technology 63A (Introduction to Engines and Machining Processes)		3
Automotive Technology 63B (Engines, Machining and Assembly Processes)		3
Automotive Technology 68 (California Bar Clean Air Car Course)		5
Automotive Technology 69 (Automotive Testing and Diagnosis)		3
Total		36½

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

AUTOMOTIVE TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50 (Introduction to the Auto Industry)		2
Automotive Technology 60A (Automotive Electrics/Electronics I)		4
Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems I)		4
Automotive Technology 60B (Automotive Electrics/Electronics II)		4
Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II)		4
Automotive Technology 62 (Automotive Air Conditioning Cooling and Heating Systems)		2½
Welding Technology 70 (Introduction to Welding)		2

SOPHOMORE YEAR	FALL	SPRING
Automotive Technology 63A (Introduction to Engines and Machining Processes)		3
Automotive Technology 64A (Manual Drive Train Assemblies)		3
Automotive Technology 65 (Automotive Brake and Safety Inspection)		3
Automotive Technology 63B (Engines, Machining and Assembly Processes)		3
Automotive Technology 64B (Automatic Transmission Assemblies)		3
Automotive Technology 66 (Automotive Steering and Suspension Systems)		3
Automotive Technology 69 (Automotive Testing and Diagnosis)		3
Total		43½

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

AUTOMOTIVE MECHANICS

CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Automotive Technology 50 (Introduction to the Auto Industry)		2
Automotive Technology 60A (Automotive Electrics/Electronics I)		4
Automotive Technology 61A (Fuel Induction Emission and Computer Control Systems I)		4
Automotive Technology 65 (Automotive Brake and Safety Inspection)		3
Automotive Technology 60B (Automotive Electrics/Electronics II)		4
Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II)		4

Automotive Technology 66 (Automotive Steering and Suspension Systems)	3
Electives*	3
Total	27

* *May be selected from:*
Automotive Technology 70 (Introduction to Automotive) Mechanics)
Industrial Technology 74 (Measurements and Calculations)
Industrial Technology 61 (Manufacturing Processes)
Welding Technology 70 (Introduction to Welding)

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**AUTOMOTIVE SERVICE
 CERTIFICATE OF ACHIEVEMENT**

CORE COURSES	FALL	SPRING
Automotive Technology 50 (Introduction to the Auto Industry)		2
Automotive Technology 60A (Automotive Electrics/Electronics 1)		4
Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems 1)		4
Automotive Technology 65 (Automotive Brake and Safety Inspection)		3
Automotive Technology 60B (Automotive Electrics/Electronics 11)		4
Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems 11)		4
Automotive Technology 62 (Automotive Air Conditioning, Cooling and Heating Systems)		2½
Electives*		3
Total		26½

* *May be selected from:*
Automotive Technology 70 (Introduction to Automotive Mechanics)
Industrial Technology 74 (Measurements and Calculations)
Industrial Technology 61 (Manufacturing Processes)
Welding Technology 70 (Introduction to Welding)

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**AUTOMOTIVE TECHNOLOGY
 CERTIFICATE OF ACHIEVEMENT**

This program is recommended for students preparing to take the Automotive Service Excellence (ASE) tests for Certified Automobile Technician.

FRESHMAN YEAR	FALL	SPRING
Automotive Technology 50 (Introduction to the Auto Industry)		2
Automotive Technology 60A (Automotive Electrics/Electronics 1)*,**		4
Automotive Technology 61A (Fuel Induction, Emission and Computer Control Systems I)*		4
Automotive Technology 60B (Automotive Electrics/Electronics II)**		4

Automotive Technology 61B (Fuel Induction, Emission and Computer Control Systems II)*	4
Automotive Technology 62 (Automotive Air Conditioning, Cooling and Heating Systems)****	2½
Welding Technology 70 (Introduction to Welding)	2

SOPHOMORE YEAR FALL SPRING

Automotive Technology 63A (Introduction to Engines and Machining Processes)	3
Automotive Technology 64A (Manual Drive Train Assemblies)	3
Automotive Technology 65 (Automotive Brake and Safety Inspection)**	3
Automotive Technology 63B (Engines, Machining and Assembly Processes)	3
Automotive Technology 64B (Automatic Transmission Assemblies)	3
Automotive Technology 66 (Automotive Steering and Suspension Systems)	3
Automotive 69 (Automotive Testing and Diagnosis)*	3
Total	43½

These courses are recommended as preparation for the following California State and EPA tests for

- *Smog Check Technicians License*
- **Lamp Adjusters License*
- ***Brake Adjusters License*
- ****Air Conditioning Refrigeration Recovery and Recycling Certification*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

AUTOMOTIVE TECHNOLOGY (AUTO)

**50 INTRODUCTION TO THE
 AUTOMOTIVE INDUSTRY** 2 UNITS

(May be repeated 3 times)
 History and role of the automotive industry. Techniques and applications of sound shop/agency practices, environmental and hazardous waste management, employment opportunities and procedures in the automotive industry. 2 hours. Transfer: CSU.

55 AUTOMOTIVE SERVICE 3 UNITS

(May be repeated 3 times)
 Role of the automotive service technician in the automotive industry with an emphasis on preventive maintenance, lubrication, and inspection. Introduction to hazardous waste handling. Development and theory of computer access to service manuals. 1½ hours lecture, 5 hours laboratory. Transfer: CSU.

60A AUTOMOTIVE ELECTRICS/ELECTRONICS I 4 UNITS

(May be repeated 3 times)
 Automotive electrical/electronic systems, including electrical circuits, battery, starting, charging, ignition and wiring systems. Emphasis on diagnosis of electrical troubles, assembly, and repair of components and diagnostic equipment usage. Prerequisite: Automotive Technology 50 or 55 (may be taken concurrently). 2 hours lecture, 6 hours laboratory.

**Or equivalent.*

60B AUTOMOTIVE ELECTRICS/ELECTRONICS II 4 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 60A with emphasis on diagnosis and repair of electrical/electronic components including computer controlled circuits/systems using schematics, diagnostic procedures and equipment; headlamp adjusting and repair. Prerequisite: Automotive Technology 60A*. 2 hours lecture, 6 hours laboratory.

61A FUEL INDUCTION, EMISSION AND COMPUTER CONTROL SYSTEMS I 4 UNITS*(May be repeated 3 times)*

Principles of automotive fuel induction and emission control systems, including inspection, diagnosis and repair of fuel and emission control systems/components governed by federal and state laws and standards. Prerequisite: Automotive Technology 50 or 55 (may be taken concurrently). 2 hours lecture, 6 hours laboratory. Transfer: CSU.

61B FUEL INDUCTION, EMISSION AND COMPUTER CONTROL SYSTEMS II 4 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 61A with emphasis on emission control, fuel injection and computer control systems. Includes software/hardware concepts and applications, sensor and control circuits, diagnosis and repair of systems/components. Prerequisite: Automotive Technology 61A*. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

62 AUTOMOTIVE AIR CONDITIONING, COOLING AND HEAT SYSTEMS 2½ UNITS*(May be repeated 3 times)*

Diagnosis, testing, adjustment, and repair of air conditioning, cooling and heating systems. Includes heat and energy, psychometrics, air flow, refrigerant recycling, equipment and controls. Strongly recommended: Automotive Technology 60A* (may be taken concurrently). 1½ hours lecture, 3½ hours laboratory.

63A INTRODUCTION TO ENGINES AND MACHINING PROCESSES 3 UNITS*(May be repeated 3 times)*

Diagnosis, inspection, and repair of various engine types; machining operations, use of instruments and automotive machinist equipment in repairing engines and cylinder head reconditioning. Prerequisite: Automotive Technology 50 or 55, and 60B (completed with a grade of "C" or higher). Strongly recommended: Industrial Technology 61 and 74 (may be taken concurrently) or equivalent. 1½ hours lecture, 5 hours laboratory. Transfer: CSU.

63B ENGINES, MACHINING AND ASSEMBLY PROCESSES 3 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 63A with emphasis on inspection, machining operations, and reconditioning of engine blocks and final assembly of engines, fundamental principles of cooling and lubrication systems. Prerequisite: Automotive Technology 63A (completed with a grade of "C" or higher). 1½ hours lecture, 5 hours laboratory. Transfer: CSU.

64A MANUAL DRIVE TRAIN ASSEMBLIES 3 UNITS*(May be repeated 3 times)*

Diagnosis, repair and adjustment of automotive drive train assemblies. Includes manual transmissions/transaxles, final drives, rear axle assemblies, clutches, couplings, viscous and all-wheel drives and drivelines. Strongly recommended: Automotive Technology 50 or 55, and Automotive Technology 60B.* 1½ hours lecture, 5 hours laboratory. Transfer: CSU.

64B AUTOMATIC TRANSMISSION ASSEMBLIES 3 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 64A with an emphasis on diagnosis, repair and adjustment of automatic transmissions/transaxles. Includes the study of torque converters, friction materials, hydraulics, gear trains, and controls. Strongly recommended: Automotive Technology 61B and 64A.* 1½ hours lecture, 5 hours laboratory. Transfer: CSU.

65 AUTOMOTIVE BRAKE AND SAFETY INSPECTION 3 UNITS*(May be repeated 3 times)*

Diagnosis, inspection, adjustment, and repair of safety equipment, braking and antilock braking systems and devices. Includes the material on the California Brake Adjuster's Licensing Examination. Strongly recommended: Automotive Technology 50, 55 or 60A*. 1½ hours lecture, 5 hours laboratory.

66 AUTOMOTIVE STEERING AND SUSPENSION SYSTEMS 3 UNITS*(May be repeated 3 times)*

Diagnosis, testing, adjustment, and repair of steering and suspension systems. Includes common automotive steering and suspension system problems. Strongly recommended: Automotive Technology 65*. 1½ hours lecture, 5 hours laboratory.

67A ADVANCED DIAGNOSIS AND TROUBLE SHOOTING OF AUTOMOTIVE SYSTEMS 4 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 61B and 62B with emphasis on diagnosis of electronic problems including computer controlled circuits/systems using schematics, diagnostic procedures and equipment. Prerequisites: Automotive Technology 60B and 61B or industry training. 2 hours lecture, 6 hours laboratory.

67B SPECIAL ADVANCED DIAGNOSIS AND TROUBLE SHOOTING OF AUTOMOTIVE SYSTEMS 3 UNITS*(May be repeated 3 times)*

Continuation of Automotive Technology 67A with emphasis on diagnosis of complex electronic problems in computer controlled systems. Prerequisite: Automotive Technology 67A. 1½ hours lecture, 5 hours laboratory.

68 CALIFORNIA BAR CLEAN AIR CAR COURSE 5 UNITS*(May be repeated 3 times)*

Motor vehicle emission inspection and maintenance. Provides the legal background necessary to analyze malfunctions, repair, assemble, and adjust those systems and devices of the automobile covered by legal standards and limitations. Techniques and applications of sound shop and/or agency practices. Overview of all modules of the complete "Clean Air Car" course. Prerequisite: (In order to be eligible to take the State Licensing exam at completion of the course): One year trade experience in emissions/tune up, or nine semester units (13 quarter units) in Automotive Technology, or 180 hours at an accredited automotive school. 4 hours lecture, 4 hours laboratory.

69 AUTOMOTIVE TESTING AND DIAGNOSIS 3 UNITS*(May be repeated 3 times)*

Inspection, diagnosis and repair of connected and related components, and malfunctioning parts; replacing and adjusting components for maximum efficiency and emission standards. Review Clean Air Car Course. Prerequisite: Automotive Technology 60B, 61B*. 1½ hours lecture, 5 hours laboratory.

70 INTRODUCTION TO AUTOMOTIVE MECHANICS 2 UNITS*(May be repeated 3 times)*

Overview of major components and systems of the automobile, including the engine, fuel, electrical, drive train, brake, and suspension systems. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

73 READING AUTOMOTIVE SERVICE MANUALS 3 UNITS*(May be repeated 3 times)*

Automotive service manuals and other related publications. Includes basic reading skills with emphasis on test preparation as it relates to automotive service manuals, Bureau of Automotive Repair (BAR) regulations, and certification tests preparation. 3 hours.

**Or equivalent*

BEHAVIORAL SCIENCE

DEGREE

AA – BEHAVIORAL SCIENCE (GENERAL)

This major is highly recommended for transfer students because it provides a basic foundation for subsequent specialization in many liberal arts fields of study. It is strongly based in the international arena. The value of the degree is now recognized by business and industry as it requires a variety of skills demanded in business, education, health, law, and government, as well as the social services. The general studies student should market educational accomplishments as a collection of career transferable skills in communication, the global arena, public service, problem solving, production and personnel management.

**BEHAVIORAL SCIENCE (GENERAL)
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Anthropology 1 (Physical Anthropology)	3	
Psychology 1 (General Psychology)	3	
Sociology 1 (Principles of Sociology)	3	

SOPHOMORE YEAR	FALL	SPRING
Courses from the following list for a total of 9:	9	
Anthropology		
Psychology (with the exception of Psychology 50)		
Sociology		
Total	18	

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

BIOLOGICAL SCIENCES

ANATOMY (ANAT)

1 GENERAL HUMAN ANATOMY 4 UNITS
Structure and function of the human body with emphasis on microscopic, gross and developmental anatomy. Microscopic examination of normal and pathological tissues, and dissection, supplemented by use of charts, models, and computer assisted instruction. Prerequisite: Biology 31* (completed with a grade of "C" or higher). Strongly recommended: Eligibility for English 1A or 52A. 2 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: 5B & Lab; AA/AS; (CAN BIOL 10).

**Or equivalent*

BIOLOGY

DEGREE

AA–BIOLOGY

AA– BIOLOGY (EMPHASIS IN ALLIED HEALTH)

Biologists study the origin, development, anatomy, physiology, ecology and other basic principles of plants and animals. Various areas of specialization are available to biologists in research, manufacturing, teaching, natural resource management, consulting and administration. Biologists are usually classified according to specialty, i.e., microbiologists, ecologists, physiologists, zoologists, botanists. Preparation for some entry level jobs in these and other areas generally requires a bachelor's degree. Students interested in a career in biology should plan to obtain a master's or doctorate degree.

In today's workplace, most allied health care professionals are expected to have a solid science foundation in basic chemistry, human structure and function, and the microbial world. With a strong science background, students develop a basic understanding of the physical and physiological interrelationships which exist between organs, tissues and cells and how microorganisms can be beneficial and sometimes harmful to humans.

BIOLOGY

**TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Chemistry 1A (General College Chemistry)	5	
Chemistry 1B (General College Chemistry)	5	
Biology 2A (Principles of Biology)	5	

SOPHOMORE YEAR	FALL	SPRING
Biology 2B (Principles of Biology)	5	
Physics 2A (Introduction to Physics I)	4	
Physics 2B (Introduction to Physics II)	4	
Total	28	

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

BIOLOGY (EMPHASIS IN ALLIED HEALTH)

TRANSFER PROGRAM AND ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Anatomy 1 (General Human Anatomy)	4	
Chemistry 30A (Introductory and Applied Chemistry)	4	
Chemistry 30B (Introductory and Applied Chemistry)	4	
SOPHOMORE YEAR	FALL	SPRING
Microbiology 1 (Microbiology)	5	
Physiology 1 (Human Physiology)	5	
Total	22	

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

BIOLOGY (BIOL)

2A PRINCIPLES OF BIOLOGY 5 UNITS
Biological processes with emphasis upon the cellular level of organization. Course is for biology majors and pre-professional students, i.e., pre-medical, pre-dental, pre-physical therapy. Topics include organic chemistry; origin of life; structure and function of prokaryotic and eukaryotic cells; cell membrane dynamics; enzyme structure and function; DNA, RNA, protein synthesis; Operon model; respiration; photosynthesis; Darwinism; cell division; genetics; evolution, speciation. Prerequisite: Chemistry 1A* (completed with a grade of "C" or higher). Strongly recommended: Biology 31* (completed with a grade of "C" or higher) and eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; C,SU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS; (CAN BIOL 2).

2B PRINCIPLES OF BIOLOGY 5 UNITS
Biological processes at the organismal level are studied with emphasis placed on the whole organism and higher levels of organization. Topics include taxonomy; anatomy and physiology of selected invertebrates and vertebrates; structure and function of representative protists, fungi, non-vascular and vascular plants with emphasis on green plants; development; ecological principles; contemporary environmental issues. Prerequisite: Biology 2A* (completed with a grade of "C" or higher). Strongly recommended: Eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

5 MARINE BIOLOGY 4 UNITS
Ocean as a habitat, the organisms that inhabit marine waters, their ecology, adaptations and evolution, and the role of the ocean in the ecology of the biosphere. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

10 INTRODUCTION TO THE SCIENCE OF BIOLOGY 4 UNITS
Basic principles of biology with the nature of living things, and the nature of scientific investigation and its bioethical impact in our modern world. Designed for non-majors in biology or the biomedical sciences. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: 5B & Lab; AA/AS.

**Or equivalent*

12 SCIENCE AND CIVILIZATION 3 UNITS
Interdisciplinary exploration of the ways science has shaped civilization. Evolution of humans and domestication of plants and animals; beginnings of architecture, chemistry, mathematics; beginnings of astronomy and past and present views of physics; genetics and evolutionary theory; evolution of the human form. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU; AA/AS.

20 CONTEMPORARY HUMAN BIOLOGY 3 UNITS
Human organism, with emphasis placed on human's origin and evolutionary legacy, the relationship with the environment, and the ethical implications of biological discoveries in science. 3 hours. Transfer: CSU, UC; CSU/GE: B2; IGETC: SB; AA/AS.

21 CONTEMPORARY HUMAN BIOLOGY WITH LABORATORY 4 UNITS
Human organism with emphasis on human's origin and evolutionary legacy, and the ethical implications of biological discoveries in science. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

25 HUMAN HEREDITY AND EVOLUTION 3 UNITS
Current views regarding human genetics and evolution including the chemical basis of inheritance, gene action, genetic basis of evolution, and the social significance of this knowledge. 3 hours. Transfer: CSU, UC; CSU/GE: B2; IGETC: Area 5B.

31 INTRODUCTION TO COLLEGE BIOLOGY 4 UNITS
Basic principles of biology. Includes origin of life, cell structure and function, cell division, reproduction, genetics, taxonomy, evolution, and cell metabolism. Laboratory emphasis on developing various laboratory skills, using the metric system, collecting data, graphing, interpreting data, utilizing statistics, operating a computer, and preparing for and taking laboratory practicals. Designed to prepare the necessary concepts and laboratory skills and experience that are needed to succeed in more advanced courses in biology. Strongly recommended: Mathematics 65 or 65L and eligibility for English 1A or 52A. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

40 FIELD BIOLOGY 3 UNITS
California ecosystems and living vertebrates, their behavior, evolution and ecology, and their interactions with humans. 2 hours lecture, 3 hours laboratory. Transfer: CSU; CSU/GE: B2.

50 ANATOMY AND PHYSIOLOGY 4 UNITS
Structure and function of the human body is studied. Emphasis on human anatomy and physiological principles at the cellular and systemic level. Designed primarily for majors in paramedic and medical assisting programs and pre-medical students who wish to explore the realm of anatomy and physiology. May be offered in distance education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

BOTANY (BOTN)

10 PLANTS, HUMANS AND THE ENVIRONMENT 4 UNITS
Structure and function of plants and their ecological relationships with their environment. Emphasis on their uses and relationships with humans. Designed for non-majors in biological sciences. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

ECOLOGY (ECOL)

8 NATURAL ENVIRONMENTS OF NORTHERN CALIFORNIA 3 UNITS

Dominant geological and ecological processes that have shaped the Northern California environment. Geological provinces, ecological communities, and the interrelationships between organisms and environment. Strongly recommended: Geology 10, Ecology 10, or Biology 10. 2 hours lecture, two 2-day field trips to Northern California sites. Transfer: CSU, UC; CSU/GE: B2; IGETC: Area 5B; AA/AS.

10 HUMANS AND THE ENVIRONMENT 3 UNITS

Identification of problems created by human's modification of their environment by focusing on ecological interactions involving the human species; investigating the life processes of organisms as they relate to specific environments. Ecology 10, 11, and 12 may be combined for a maximum of 4 units. 3 hours lecture. Transfer: CSU, UC; CSU/GE: B2; IGETC: Area 5B; AA/AS.

11 HUMANS AND THE ENVIRONMENT WITH LABORATORY 4 UNITS

Identification of the problems created by human's modification of their environment by focusing on ecological interactions involving the human species; investigating the life processes of organisms as they relate to specific environments. Ecology 10, 11, and 12 may be combined for a maximum of 4 units. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

12 CURRENT ISSUES IN ENVIRONMENTAL SCIENCE 3 UNITS

Identification of problems created by humans modification of their environment. Examination of human population growth through history, resource use, and pollution. Introduction of fundamental concepts of matter, energy, and ecology with emphasis on application of these concepts to a range of contemporary environmental issues. May be offered in Distance Education delivery format. Ecology 10, 11, and 12 may be combined for a maximum of 4 units. 3 hours. Transfer: CSU; CSU/GE: E, AA/AS.

MICROBIOLOGY (MICR)

1 MICROBIOLOGY 5 UNITS

Bacteria, fungi, protozoans, parasites, and viruses with an emphasis on their relationship to humans. Cultivation, control, metabolism, body's defense against disease, microbial genetics, laboratory tests, and contemporary diseases are discussed. Methods used in the laboratory include staining, investigation, cultivation, identification of unknowns, and sensitivity testing. Prerequisite: Biology 31 and Chemistry 30A or Chemistry 1A (*both completed with a grade of "C" or higher*). Strongly recommended: Anatomy 1, eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

PHYSIOLOGY (PHSI)

1 HUMAN PHYSIOLOGY 5 UNITS

Cellular and systemic body functions. Emphasis placed on physico- and electro-chemical and clinical methods, collection and analysis of data, extrapolations and conclusions. Working models, including human responses, computer simulations are studied. Prerequisite: Chemistry 30A and Anatomy 1 (*both completed with a grade of "C" or higher*). Strongly recommended: Chemistry 30B, eligibility for English 1A or 52A. 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS (CAN BIOL 12).

**Or equivalent*

2 PATHOPHYSIOLOGY 3 UNITS

Pathophysiological processes in selected disease states in the following systems of the human body; endocrine, renal, circulatory, respiratory, gastrointestinal, musculoskeletal, integumentary, and neurological. Purpose and results of supporting laboratory, radiological, and other appropriate diagnostic studies used in confirming the presence or absence of the selected disease states. Critical thinking exercises. Prerequisites: Satisfactory completion of Physiology 1 and Microbiology 1 (or equivalent) and: (1) satisfactory completion of (or concurrent enrollment in) Nursing 69 and Nursing 70 **and** possession of a valid California LVN license, **or** possession of a valid California RN license, **or** satisfactory completion (75% or higher) of all required nursing courses in the first year of the nursing curriculum **and** concurrent enrollment in the third semester of the nursing program. 3 hours lecture.

2L PHYSICAL ASSESSMENTS 1/2 - 1 UNIT

Methodologies employed in physical assessment in the clinical setting. Focus on breast and testicular examination, and advanced technique utilized in assessing the status of neurological cardiac, and peripheral vascular, thoracic, musculoskeletal, integumentary, and abdominal systems. Laboratory and diagnostic tests (such as techniques of respiratory arterial blood gas analyzes, pulse oximetry, and basic cardiac dysrhythmia interpretation). Health data base interviewing. Prerequisites: Satisfactory completion of Physiology 1 and Microbiology 1 (or equivalent) and: (1) satisfactory completion of (or concurrent enrollment in) Nursing 69 and Nursing 70, possession of a valid California LVN license, or satisfactory completion of all required nursing courses in the first year of the nursing curriculum, and concurrent enrollment in the third semester of the nursing program and Physiology 2, **or** possession of a valid California RN license. 1/2 - 3 hours laboratory. Transfer: CSU

ZOOLOGY (ZOO)

10 ANIMAL BIOLOGY 4 UNITS

Natural history of animals and their role in nature. Includes organization, genetics, evolution, taxonomy, behavior and animal ecology. Designed for non-majors in biological sciences. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B2, B3; IGETC: Area 5B & Lab; AA/AS.

BOTANY

(See Biological Sciences)

BUSINESS (BUS)

(Other Business-related programs appear under the headings of Computer Application Systems, and Real Estate.)

DEGREE:

AS – ACCOUNTING

(PENDING STATE APPROVAL)

AA – BUSINESS ADMINISTRATION

AS – BUSINESS (GENERAL)

(PENDING STATE APPROVAL)

AS – BUSINESS

(EMPHASIS IN INTERNATIONAL BUSINESS)

(PENDING STATE APPROVAL)

AS – BUSINESS (EMPHASIS IN MARKETING)

(PENDING STATE APPROVAL)

**AS – BUSINESS (EMPHASIS IN MANAGEMENT)
(PENDING STATE APPROVAL)**

**CERTIFICATE OF ACHIEVEMENT:
ACCOUNTING TECHNICIAN
MARKETING (PENDING STATE APPROVAL)**

**CERTIFICATE OF COMPLETION:
MANAGEMENT**

The curriculum offers the student general business preparation for gainful employment in various business responsibilities and prepares for transfer to four-year institution. A broad foundation of basic principles in business operation and management is provided.

The accounting curriculum provides training for employment as accounting clerks, accounts payable clerks, accounts receivable clerks, accountants and bookkeepers in the accounting departments of business firms and as junior accountants in the public accounting field.

ACCOUNTING

**ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL**

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I)	4	
Business 12 (Introduction to Business)	3	
Business 16 (Business Mathematics)	3	
Business 1B (Principles of Accounting II)	4	
Computer Applications Systems 54A (Microsoft Excel I)	3	

SOPHOMORE YEAR	FALL	SPRING
Business 10 (Business Law)	4	
Business 14 (Business Communications)	3	
Business 3 (Income Tax Accounting)	4	
Business 2 (Intermediate Accounting)	3	
Business 4 (Cost Accounting)	3	
Business 5 (Introduction to Peachtree Accounting)	1	
Business 6 (Introduction to QuickBooks Accounting)	1	
Business 81 (Introduction to Investments)	3	
Total		39

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

The above listing is a suggested sequence only Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**BUSINESS ADMINISTRATION
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I)	4	
Economics 1 (Principles of Microeconomics)	3	

Business 1B (Principles of Accounting II)	4
Economics 2 (Principles of Macroeconomics)	3
Mathematics 32 (Calculus for Business and Social Sciences) or Mathematics 1 (Calculus I)	4-5

SOPHOMORE YEAR	FALL	SPRING
Business 10 (Business Law)	4	
Mathematics 33 (Finite Mathematics) or Mathematics 2 (Calculus II)	4-5	
Mathematics 35 (Statistics for Business Majors)	4	
Psychology I (General Psychology)	3	
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 55A (Microsoft Office Application Integration I) or Computer Science 8 (Computer Literacy)	3	
Total		36-38

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

The above listing is a suggested sequence only Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

This transfer degree is written specifically for California State University, Hayward. Please see a counselor for transfer to other institutions.

**BUSINESS (GENERAL)
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL**

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)	3-4	
Business 10 (Business Law)	4	
Business 12 (Introduction to Business)	3	
Business 14 (Business Communications)	3	
Business 16 (Business Mathematics)	3	
Business 22 (Introduction to Management)	3	
Economics 10 (General Economics)	3	

SOPHOMORE YEAR	FALL	SPRING
Business 36 (Introduction to Marketing)	3	
Business 40 (International Business)	3	
Computer Applications Systems 54A (Microsoft Excel 1) or Computer Applications Systems 55A (Microsoft Office Applications for Integration I)	3	
Option*	9-10	
Total		40-42

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required ..60*

**Select minimum of 9 units from other Business Classes.*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**BUSINESS
(EMPHASIS IN INTERNATIONAL BUSINESS)**

ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting 1) or Business 7 (General Accounting)		3-4
Business 10 (Business Law)		4
Business 12 (Introduction to Business)		3
Business 14 (Business Communications)		3
Business 16 (Business Mathematics)		3
Business 22 (Introduction to Management)		3
Economics 10 (General Economics)		3

SOPHOMORE YEAR	FALL	SPRING
Business 36 (Introduction to Marketing)		3
Business 40 (International Business)		3
Computer Application Systems 54A (Microsoft Excel 1) or Computer Application System 55A (Microsoft Office Applications Integration 1)		3
Business 41 (Export/Import Operations)		3
Option*		9-10
Total		43-45

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required 60

- * Select any three courses from the following*
Business 17 (Business Ethics) 3 units
Business 35 (E-Commerce and E-Business) 3 units
Geography 3 (Economic Geography) 3 units
Geography 5 (World Regional Geography) 3 units
Political Science 30 (International Relations) 3 units
Work Experience 95 (Work Experience) 1-3 units
Work Experience 96 (Work Experience Seminar) 1 unit

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**BUSINESS
(EMPHASIS IN MARKETING)**
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 10 (Business Law)		4
Business 12 (Introduction to Business)		3
Business 14 (Business Communications)		3
Business 16 (Business Mathematics)		3
Business 22 (Introduction to Management)		3
Economics 10 (General Economics)		3

SOPHOMORE YEAR	FALL	SPRING
Business 36 (Introduction to Marketing)		3
Business 40 (International Business)		3
Computer Application Systems 54A (Microsoft Excel I) or Computer Application Systems 55A (Microsoft Office Applications Integration I)		3
Option*		9-10
Total		40-42

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required 60

- * Select two courses from the following*
Business 31 (Professional Selling) 3 units
Business 32 (Retail Store Management) 3 units
Business 34 (Introduction to Advertising) 3 units

- and select one course from the following*
Business 35 (E-Business and E-Commerce) 3 units
Business 26 (Small Business Management) 3 units
Work Experience 95 (Work Experience) 1-3 units
Work Experience 96 (Work Experience Seminar) 1 unit

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**BUSINESS
(EMPHASIS IN MANAGEMENT)**
ASSOCIATE IN SCIENCE DEGREE
PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
Business 1A (Principles of Accounting 1) or Business 7 (General Accounting)		3-4
Business 10 (Business Law)		4
Business 12 (Introduction to Business)		3
Business 14 (Business Communications)		3
Business 16 (Business Mathematics)		3
Business 22 (Introduction to Management)		3
Economics 10 (General Economics)		3

SOPHOMORE YEAR	FALL	SPRING
Business 36 (Introduction to Marketing)		3
Business 40 (International Business)		3
Computer Application Systems 54A Microsoft Excel I) or Computer Application Systems 55A (Microsoft Office Applications Integration I)		3
Option*		9-10
Total		40-42

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required 60

* Select any three courses from the following:

- Business 17 (Business Ethics) 3 units*
- Business 21 (Human Resources Management) 3 units*
- Business 26 (Small Business Management) 3 units*
- Business 28 (Human Relations in the Workplace) 3 units*
- Work Experience 95 (Work Experience) 1-3 units*
- Work Experience 96 (Work Experience Seminar) 1 unit*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

ACCOUNTING TECHNICIAN
CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Business 1A (Principles of Accounting I)	4	
Business 15 (Business Correspondence)	3	
Computer Application Systems 54A (Microsoft Excel® I)	3	
Computer Application Systems 88A (Microsoft Word® I)	3	
Business 1B (Principles of Accounting II)	4	
Business 3 (Income Tax Accounting)	4	
Business 5 (Introduction to Peachtree Accounting)	1	
Business 6 (Introduction to QuickBooks Accounting)	1	
Computer Application Systems 58 (Introduction to Database Concepts)	3	
Total		26

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

MARKETING
CERTIFICATE OF ACHIEVEMENT
PENDING STATE APPROVAL

CORE COURSES	FALL	SPRING
Business 1A (Principles of Accounting I) or Business 7 (General Accounting)	3-4	
Business 12 (Introduction to Business)	3	
Business 36 (Introduction to Marketing)	3	
Business 31 (Professional Selling)	3	
Business 32 (Retail Store Management) or Business 34 (Introduction to Advertising)	3	
Option*	6-7	
Total		21-23

* Select two courses from the following

- Business 14 (Business Communications) 3 units*
- Business 16 (Business Mathematics) 3 units*
- Business 17 (Business Ethics) 3 units*
- Business 22 (Introduction to Management) 3 units*
- Business 40 (International Business) 3 units*
- Business 35 (E-Commerce and E-Business) 3 units*
- Work Experience 95 (Work Experience) 1-3 units*
- Work Experience 96 (Work Experience Seminar) 1 unit*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

MANAGEMENT
CERTIFICATE OF COMPLETION
PENDING STATE APPROVAL

CORE COURSES	FALL	SPRING
Business 1A (Principles of Accounting) or Business 7 (General Accounting)	3-4	
Business 12 (Introduction to Business)	3	
Business 22 (Introduction to Management)	3	
Business 21 (Human Resource Management)	3	
Option*	6	
Total		18-19

* Select any six units from the following options:

- Business 14 (Business Communications) 3 units*
- Business 16 (Business Mathematics) 3 units*
- Business 17 (Business Ethics) 3 units*
- Business 28 (Human Relations in the Workplace) 3 units*
- Business 35 (E-Commerce and E-Business) 3 units*
- Business 36 (Introduction to Marketing) 3 units*
- Business 40 (International Business) 3 units*
- Business 95 (Work Experience) 1-3 units*
- Business 96 (Work Experience Seminar) 1 unit*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

BUSINESS (BUS)

1A PRINCIPLES OF ACCOUNTING I 4 UNITS
Basic theory and structure of accounting; accounting cycles and preparation of accounting statements for service and merchandising operations; receivables, inventory, plant assets, current liabilities, payroll, accounting principles, concepts, and partnerships. Strongly recommended: Business 7. 4 hours. Transfer: CSU, UC; (CAN BUS 2); with BUS 1B (CAN BUS SEQ A).

1B PRINCIPLES OF ACCOUNTING II 4 UNITS
Emphasis on analysis and use of accounting within the organization: corporations, long term liabilities, investments, funds and cash flow, financial statement analysis, managerial accounting, job order cost accounting, process cost accounting, cost-volume profit, break-even analysis, budgeting and standard costs. Prerequisite: Business 1A (completed with a grade of "C" or higher). 4 hours. Transfer: CSU, UC; (CAN BUS 4); with BUS 1A (CAN BUS SEQ A).

2 INTERMEDIATE ACCOUNTING 3 UNITS
Fundamental accounting standards and concepts, environment, framework, procedure and reporting for assets, liabilities, expenditures, and net income. Prerequisite: Business 1B (completed with a grade of "C" or higher). 3 hours. Transfer: CSU.

3 INCOME TAX ACCOUNTING 4 UNITS
Analysis of the current Federal regulations that affect the income tax liability of individuals. Emphasis on the Federal rules and differences in the California law. 4 hours. Transfer: CSU.

4 COST ACCOUNTING 3 UNITS
Principles of cost build up and techniques for gathering cost, cost control, job order, process costing, managerial use of cost data, emphasis on application of principles. Prerequisite: Business 1B (completed with a grade of "C" or higher). 3 hours. Transfer: CSU.

5 INTRODUCTION TO PEACHTREE ACCOUNTING 1 UNIT

Introduction to the use of Peachtree accounting to process the accounting cycle using the general journal and the general ledger for a service organization. Recording transactions, posting, making adjustments and preparing financial statements. Using Peachtree models for a merchandising organization. Specific modules include accounts payable, accounts receivable, inventory and payroll. Strongly recommended: Business 7*. 1 hour lecture, 1 hour laboratory.

6 INTRODUCTION TO QUICKBOOKS ACCOUNTING 1 UNIT

Introduction to the use of QuickBooks Accounting to process the accounting cycle using general journal and the general ledger for a service organization. Recording transactions, posting, making adjustments and preparing financial statements. Using QuickBooks modules for a merchandising organization. Specific modules include accounts payable, accounts receivable, inventory and payroll. Strongly recommended: Business 7*. 1 hour lecture, 1 hour laboratory.

7 GENERAL ACCOUNTING 3 UNITS

Bookkeeping practice; debit and credit practice; books of original entry; ledgers, working papers, adjusting and closing entries, income statement, balance sheet, and statement of owners equity, cash, payroll, special journals, merchandising firms. 3 hours lecture, 1 hour laboratory. Transfer: CSU.

10 BUSINESS LAW 4 UNITS

Legal setting in which business operates, with emphasis on legal reasoning and resolution, contracts, agency, partnerships and corporations. May be offered in Distance Education delivery format. 4 hours. Transfer: CSU, UC; (CAN BUS 8).

12 INTRODUCTION TO BUSINESS 3 UNITS

Survey of the private enterprise system and basic business concepts, business economics, types of business ownership, organization and functions, the data and systems by which businesses are controlled. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC.

14 BUSINESS COMMUNICATIONS 3 UNITS

Process of transferring oral and non-verbal meanings and the techniques that help remove barriers. Delegating work assignments, planning, problem solving, conferences, employee counseling and making oral presentations. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; AA/AS.

15 BUSINESS CORRESPONDENCE 3 UNITS

Development of skills in organizing and writing business letters, memoranda, reports, resumes, and letters of application with emphasis on rules for punctuation, spelling, and grammar which meet the needs of modern business. Strongly recommended: Eligibility for English 101B. 3 hours lecture, 1 hour laboratory. Transfer: CSU.

16 BUSINESS MATHEMATICS 3 UNITS

Mathematics to solve typical business problems including simple interest, compound interest, installment sales, trade and cash discounts, markup percents, pricing, discounting notes and drafts, depreciation, taxes, insurance, statistics, stocks, bonds, and distribution of ownership and profits. Strongly recommended: Mathematics 105 or 105L (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 3 hours. Transfer: CSU; AA/AS.

17 BUSINESS ETHICS 3 UNITS

Past and current political, social and ethical behavior of big business in American society. Emphasis on the ethical responsibility of business toward customers, employees, stockholders, competitors, suppliers, government and the community at large. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; CSU/GE: D7; AA/AS.

21 HUMAN RESOURCE MANAGEMENT 3 UNITS

Introduction to the management of human resources. The impact and accountability of human resources activities to the organization. Global human resource strategies, social and organizational realities, legal implications affecting people at work, union/non-union practices, comparable work, employee compensation, benefits, and employee rights. 3 hours. Transfer: CSU

22 INTRODUCTION TO MANAGEMENT 3 UNITS

Principles and concepts of traditional management tasks, contemporary management challenges related to such topics as people, diversity, quality, social responsibility and ethics, the global environment, production management, information technology, competitiveness and innovation, building alternative work situations and the internet. 3 hours. Transfer: CSU.

24 LEADERSHIP ACTIVITY 1 UNIT

(May be repeated 3 times)

Performance in marketing and management activities, including field trips, workshops, market research studies and projects designed to develop vocational competence and leadership abilities. 1 hour.

26 SMALL BUSINESS MANAGEMENT 3 UNITS

Application of management principles to the selection, establishment, and operation of a small business. Emphasis on the problems encountered by the small manufacturer or merchant. Strongly recommended: Business 1A or 7. 3 hours. Transfer: CSU.

28 HUMAN RELATIONS IN THE WORKPLACE 3 UNITS

Business concepts of individual, group, and organization human behavior as they affect human relations, performance, and productivity within the workplace. Strategies and techniques that influence interpersonal, administrative, and organizational communications and interactions among people. 3 hours. Transfer: CSU.

31 PROFESSIONAL SELLING 3 UNITS

Principles and techniques involved in selling ideas, products and services. Includes buying behavior, suggestions, ethics and career opportunities in sales work. Emphasis on mastering the art of selling in retail stores. 3 hours. Transfer: CSU, AA/AS.

32 RETAIL STORE MANAGEMENT 3 UNITS

Principles and practices used in the management of retail stores, includes site selection, layout, organization, staffing, positioning, customer service, promotional techniques and all aspects of the critical buying function. 3 hours. Transfer: CSU.

34 INTRODUCTION TO ADVERTISING 3 UNITS

Contributions of advertising to marketing and communication, including coordination and development of sales promotion programs, media selection, copy writing, layout, research and budgeting. 3 hours. Transfer: CSU.

35 E-BUSINESS AND E-COMMERCE 3 UNITS

An introduction to the fundamental concepts of electronic-business and electronic-commerce. Presentation of the business and technology framework for e-commerce. Value network analysis including disintermediation and reintermediation. Exploration of the hyper-competitive business environment. Application of electronic commerce in business-to-business and business-to-consumer markets. Discussion of public policy issues surrounding electronic commerce. Presentation of technology infrastructure requirements of implementation of e-commerce and e-business. 3 hours. Transfer: CSU.

36 INTRODUCTION TO MARKETING 3 UNITS

Marketing as an exchange process involving all members of society; research on the demographic and behavioral dimensions of markets; analyses of marketing strategies and the social, cultural, economic, competitive and legal factors affecting marketing mix decisions. 3 hours. Transfer: CSU; CSU/GE: D7; AA/AS.

37 CUSTOMER SERVICE SKILLS AND CONCEPTS 3 UNITS
 Customer service skills and concepts needed for success in business careers. Content includes verbal and non-verbal communication, self-help techniques, development and retention of customers in a diverse society. 3 hours. Transfer: CSU.

40 INTERNATIONAL BUSINESS 3 UNITS
 Exploration of major factors involved in developing international trade. A managerial overview of international law, monetary environment, foreign market analysis, sociocultural forces and international ethics. Emphasis on current events in international business. 3 hours. Transfer: CSU, AA/AS.

41 EXPORT/IMPORT OPERATIONS 3 UNITS
 Reviews the basic motivations for exporting and importing; introduces the practical handling options most often used for international commerce and shipping. Examines the concerns of the various agencies that govern international shipments, the documentary requirements that they impose, and challenges of international trade. Strongly recommended: Business 40 or equivalent (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

81 INTRODUCTION TO INVESTMENTS 3 UNITS
 Application of investment principles, including the various types of securities, the problems of securing capital for business ownership and the decisions involved in an individual or a corporate investment program. 3 hours. Transfer: CSU.

82 CONSUMER FINANCE AND OWNERSHIP 3 UNITS
 Elements involved in the U.S. marketplace for renting or owning real estate, vehicles, and other investments. Financial planning associated with banking, credit, insurance, taxes, estate planning in relationship to business cycles and government regulations. Strongly recommended: Eligibility for English 1A and Mathematics 65 or 65L. 3 hours. Transfer: CSU.

95 BUSINESS WORK EXPERIENCE◇ 1-3 UNITS
(May be repeated 3 times)
 College supervised on-the-job training for work in a business related occupation. Through the cooperation of the work supervisor, contract to accomplish new learning objectives or broaden experiences in work field. Corequisite: Business 96. 5-15 hours of employment per week. Transfer: CSU.

96 BUSINESS WORK EXPERIENCE◇ 1 UNIT
(May be repeated 3 times)
 Focal point for the coordination of curriculum with college supervised part-time or full-time employment in major field. Case studies, job related problems, student cases and presentations, and material related to employment, organizations and management discussed; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Corequisite: Business 95. 1 hour. Transfer: CSU.

**Or equivalent.*
 ◇Refer to page 14 for program requirements.

CHEMISTRY (CHEM)

**DEGREE:
 AS – CHEMISTRY**

The two-year program in chemistry provides the student with a broad background in inorganic and organic chemistry and quantitative analysis. This program supports all physical and biological science majors in the allied health sciences and satisfies general education requirements.

**CHEMISTRY
 TRANSFER PROGRAM AND
 ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR FALL SPRING
 Chemistry 1A (General College Chemistry) 5
 Mathematics 1 (Calculus I) 5
 Chemistry 1B (General College Chemistry) 5
 Mathematics 2 (Calculus II) 5

SOPHOMORE YEAR FALL SPRING
 Chemistry 12A (Organic Chemistry) 5
 Physics 4A (General Physics I) 5
 Chemistry 12B (Organic Chemistry) 5
 Physics 4B (General Physics II) 5
Total: **40**

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

Recommended course:
 Mathematics 3 (Multivariable Calculus)
OR Mathematics 4 (Elementary Differential Equations)
OR Mathematics 6 (Elementary Linear Algebra)

CHEMISTRY (CHEM)

To remain in a chemistry class a student must demonstrate competency in chemistry laboratory safety procedures by receiving a satisfactory score on the safety quiz administered during the NGR period.

1A GENERAL COLLEGE CHEMISTRY 5 UNITS
 Introduction to atomic structure, bonding, stoichiometry, thermochemistry, gases, matter and energy, oxidation-reduction, chemical equations, liquids and solids, and thermodynamics. Laboratory includes both quantitative and qualitative experiments. Prerequisite: Mathematics 55 or 55B, Chemistry 31 (all courses completed with a grade of "C" or higher) or appropriate skill level demonstrated through the Chemistry Placement Process; knowledge of safe laboratory procedure as demonstrated through completion of Chemistry 31 or the laboratory safety evaluation. 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS; (CAN CHEM 2); with CHEM 1B (CAN CHEM SEQ A).

1B GENERAL COLLEGE CHEMISTRY 5 UNITS
 Continuation of Chemistry 1A. Includes solutions, ionic equilibria, acid-base chemistry, electrochemistry, coordination chemistry, kinetics, nuclear chemistry, organic chemistry, and the chemistry of family groups of the periodic table. Laboratory emphasizes quantitative techniques, including instrumentation, and qualitative analysis. Prerequisite: Chemistry 1A (completed with a grade of "C" or higher). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; (CAN CHEM 4); with CHEM 1A (CAN CHEM SEQ A).

5 QUANTITATIVE OF ANALYSIS 4 UNITS
 Principles and methods of volumetric and gravimetric analysis and an introduction to instrumental analysis. Prerequisite: Chemistry 1B (completed with a grade of "C" or higher). 2 hours lecture, 6 hours laboratory. Transfer: CSU, UC; IGETC: Area 5A & Lab; (CAN CHEM 12).

8 SURVEY OF ORGANIC CHEMISTRY**6 UNITS**

Fundamental aspects of the structure, physical properties, chemical reactivity and synthesis of organic compounds with emphasis on materials of interest to students in the biological sciences. Laboratory experiments cover basic organic laboratory techniques using reactions or processes found in the biological sciences. Prerequisite: Chemistry 1B (*completed with a grade of "C" or higher*). 4 hours lecture, 1 hour discussion, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS.

10 INTRODUCTION TO CHEMISTRY**4 UNITS**

A non-mathematical survey of the basic concepts of chemistry that stresses a humanistic approach. Designed for non-science majors. Topics include basic structure, properties and reactivity of matter and energy as they relate to environmental issues, nutrition, medicine, material science and other current topics. May not be taken for credit if Chemistry 1A or Chemistry 31 has been completed. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS.

12A ORGANIC CHEMISTRY**5 UNITS**

Hydrocarbons, alkyl halides, alcohols, ethers, and an introduction to aromatic hydrocarbons. Structure, bonding, stereochemistry, confirmational analysis nomenclature, and physical properties in relation to these particular groups of compounds. Emphasis on reactivity, and reaction mechanisms. Laboratory work includes macroscale, spectroscopic, and chromatographic techniques. Chemistry 12A is the first semester in a year course in organic chemistry designed for students majoring in chemistry and related disciplines. Prerequisite: Chemistry 1B (*completed with a grade of "C" or higher*). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab.

12B ORGANIC CHEMISTRY**5 UNITS**

Continuation of Chemistry 12A with an introduction to the chemistry of aromatics, amines, carbanions, carboxylic acids, aldehydes, ketones and biochemical topics focusing on structure, synthesis, and mechanisms of reaction. Laboratory work in basic techniques, synthetic methods, qualitative, spectroscopic, and chromatographic analysis techniques. Designed for students whose interests require a full year in-depth study of organic chemistry. Prerequisite: Chemistry 12A (*completed with a grade of "C" or higher*). 3 hours lecture, 6 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab.

20 MOLECULAR MODELING FOR ORGANIC CHEMISTRY**1 UNIT**

(May be repeated 1 time)

Computer generated molecular models of organic molecules will be used for the purpose of strengthening the connections between structure, stability and reactivity. Models will be used to explore and predict reactivity as well as properties such as dipole moments, conformations, and energy. Designed for students currently enrolled in an organic chemistry course or for those who have successfully completed one. May be offered in Distance Education delivery format. Strongly recommended: current enrollment in an Organic Chemistry Course. 1 hour lecture/discussion. Transfer: CSU.

30A INTRODUCTORY AND APPLIED CHEMISTRY**4 UNITS**

Chemistry of inorganic compounds, atomic theory, bonding, equations, gas laws, solutions, acid-base theory and oxidation-reduction. Designed to meet the requirements of certain programs in allied health and technological fields and for general education. Prerequisite: Mathematics 65 or 65B (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS; (CAN CHEM 6).

30B INTRODUCTORY AND APPLIED CHEMISTRY**4 UNITS**

Continuation of Chemistry 30A with emphasis on organic and biochemical concepts. Prerequisite: Chemistry 30A (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; (CAN CHEM 8).

31 INTRODUCTION TO COLLEGE CHEMISTRY**4 UNITS**

Elementary concepts of chemistry with emphasis on mathematical calculations; includes nomenclature, stoichiometry, atomic structure, gas laws, and acids and bases. Designed for majors in science and engineering. Prerequisite: Mathematics 55 or 55B (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS.

CHICANO/LATINO STUDIES**DEGREE:****AA – CHICANO/LATINO STUDIES
(PENDING STATE APPROVAL)**

The Associate in Arts in Chicano/Latino Studies is designed for students who are interested in a general education as well as concentrating on important aspects of the Chicano experience in the United States through the study of the Spanish language, history, culture, and psychology. Courses explore the experience of Chicanos/Latinos within American society.

CHICANO/LATINO STUDIES**ASSOCIATE IN ARTS DEGREE
(PENDING STATE APPROVAL)**

CORE COURSES	FALL	SPRING
Anthropology 5 (Cultural Pluralism: Anthropological Perspectives of Race, Class, Gender And Ethnicity)	3	3
English 22 (Mexican American/Latino (Literature of the U.S.)	3	3
History 22 (Introduction to Mexican-American History and Culture)	3	3
Sociology 3 (American Cultural and Racial Minorities)	3	3
Spanish 2A (Intermediate Spanish)	4	4
Spanish 5 (Field Work Relations)	1	1
Psychology-Counseling 26 (College Success and the Chicano Experience).	1	1
Elective must be a course with a significant Chicano/Latino focus	3	3
Political Science 40 - (Contemporary Issues in American Politics), History 12 - (History of California), or A Contemporary Studies course with a Chicano/Latino focus.		
Total:		21

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

CHINESE

(See Foreign Languages)

COLLOQUIA

COLLOQUIA **1 UNIT**

(May be repeated 3 times)

A colloquium is a group of students who meet with an instructor over a period of one semester to consider ideas or documents of continuing importance, or a special topic. The purpose is to stimulate serious thought through discussion and analysis. A student is limited to one colloquium each semester. A colloquium may be offered under any subject area contained in the Catalog, using the number 9. Open to all students not on probation. 2 hours. Transfer: CSU, UC.

COMMUNITY INTEREST STUDIES

COMMUNITY INTEREST STUDIES **NON-CREDIT**

Community interest courses include both full term and short term courses in a wide variety of course patterns, field studies, seminars, workshops, and any other such educational activities that will meet the educational needs of the college community. May be offered under any course title contained in the Catalog, using the numbers 200 through 299.

COMPUTER APPLICATION SYSTEMS (CAS)

DEGREE:

AA – COMPUTER APPLICATION SYSTEMS (COMPUTER PROGRAMMING)

AA – COMPUTER APPLICATION SYSTEMS (COMPUTER SOFTWARE APPLICATIONS)

AS – ADMINISTRATIVE ASSISTANT

CERTIFICATE OF ACHIEVEMENT:

COMPUTER APPLICATION SYSTEMS (COMPUTER SOFTWARE APPLICATIONS)

ADMINISTRATIVE ASSISTANT

OFFICE TECHNOLOGY

CERTIFICATE OF COMPLETION:

OFFICE TECHNOLOGY

The CAS program includes microcomputer applications, programming languages and computer support of business organizations. The program offers state-of-the-art training in the use of business application software and hardware to prepare students for professional careers, transfer study, and/or personal use. Students receive individual hands-on training in laboratory facilities. Faculty work closely with business and industry to ensure relevant training.

COMPUTER APPLICATION SYSTEMS – COMPUTER PROGRAMMING

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR FALL SPRING

Business 1A (Principles of Accounting I)	4
Business 12 (Introduction to Business)	3
Computer Application Systems 50 (Introduction to Computer Application Systems)	3
Computer Application Systems 55A (Integrated Business Software Applications for Personal Computers)	4
Computer Application Systems 54A (Introduction to Excel® for the PC)	3

SOPHOMORE YEAR FALL SPRING

Computer Application Systems 80 (BASIC-Computer Programming in BASIC)	4
Elective*	4
Business 14 (Business Communications)	3
Computer Science 14 (Introduction to Structured Programming in C++)	4
Elective*	4
Total	36

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

**Electives (8 units): Other Computer Application Systems/Electronics and Computer Technology/Computer Science classes*

COMPUTER APPLICATION SYSTEMS – COMPUTER SOFTWARE APPLICATIONS

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR FALL SPRING

Business 12 (Introduction to Business)	3
Business 7 (General Accounting) or Business 1A (Principles of Accounting I)	3-4
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy)	3
Business 14 (Business Communications)	3
Computer Application Systems 88A (Microsoft Word® I)	3
Computer Application Systems 54A (Microsoft Excel® I)	3

SOPHOMORE YEAR	FALL	SPRING
Computer Application Systems 55A (Microsoft Office® Applications Integration I)		3
Computer Application Systems 80 (BASIC-Computer Programming in BASIC) or Computer Science 14 (Introduction to Structured Programming in C++)		4
Computer Application Systems 58 (Introduction to Database Concepts)		3
Computer Application Systems 55B (Microsoft Office® Applications Integration II)		4
Computer Science 10 (Introduction to Programming Using Visual BASIC) or Computer Science 11 (Programming Windows Using Visual BASIC)		2-4
Computer Science 12 (Intermediate Visual BASIC Programming)		2
Computer Science 91 (Introduction to Hypertext Markup Language (HTML)) or Computer Application Systems 91 (Introduction to Hypertext Markup Language (HTML)) or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language (HTML))		2
Total		38-41

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required **60**

**ADMINISTRATIVE ASSISTANT
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR	FALL	SPRING
Business 7 (General Accounting) or Business 1A (Principles of Accounting)		3-4
Computer Application Systems 70 (Computer Keyboarding and Formatting)		3
Computer Application System 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Business 14 (Business Communications)		3
Business 15 (Business Correspondence)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Business 28 (Human Relations in the Workplace)		3

SOPHOMORE YEAR	FALL	SPRING
Computer Application Systems 88B (Microsoft Word® II)		3
Computer Application Systems 54B (Microsoft Excel® II) or Computer Application Systems 58 (Introduction to Database Concepts)		3
CAS 55A (Microsoft Office® Applications Integration I)		3
Work Experience 95 (Occupational Work Experience Education)		1-3
Work Experience 96 (Occupational Work Experience Seminar)		1
Total		35-38

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required **60**

**COMPUTER APPLICATION SYSTEMS –
COMPUTER SOFTWARE APPLICATIONS
CERTIFICATE OF ACHIEVEMENT**

CORE COURSES	FALL	SPRING
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Computer Application Systems 55A (Microsoft Office® Applications Integration I)		3
Computer Application Systems 55B (Microsoft Office® Applications Integration II)		4
Computer Science 10 (Introduction to Programming Using Visual BASIC) or Computer Science 11 (Programming Windows Using Visual BASIC)		2-4
Computer Application Systems 80 (BASIC Computer Programming in BASIC) or Computer Science 14 (Introduction to Structured Programming in C++)		4
Computer Application Systems 58 (Introduction to Database Concepts)		3
Computer Application Systems 91 (Introduction to Hypertext Markup Language (HTML)) or Computer Science 91 (Introduction to Hypertext Markup Language (HML)) Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language (HTML))		2
Total		24-26

**ADMINISTRATIVE ASSISTANT
CERTIFICATE OF ACHIEVEMENT**

CORE COURSES	FALL	SPRING
Business 7 (General Accounting) or Business 1A (Principles of Accounting I)		3-4
Computer Application Systems 70 (Computer Keyboarding and Formatting)		3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Business 15 (Business Correspondence)		3
Business 28 (Human Relations in the Workplace)		3
Computer Application Systems 88B (Microsoft Word® II)		3
Computer Application Systems 54B (Microsoft Excel® II) or Computer Application System 58 (Introduction to Database Concepts)		3
Total		27-28

**OFFICE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

CORE COURSES	FALL	SPRING
Computer Application Systems 70 (Computer Keyboarding and Formatting)		3
Computer Application Systems 8 (Computer Literacy) or Computer Science 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems)		3
Business 15 (Business Correspondence)		3
Computer Application Systems 88A (Microsoft Word® I)		3
Computer Application Systems 54A (Microsoft Excel® I)		3
Electives*		5
Total		20

*Select 5 units from Computer Application Systems 72 series.

**OFFICE TECHNOLOGY
CERTIFICATE OF COMPLETION**

CORE COURSES	FALL	SPRING
Computer Application Systems 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Science 8 (Computer Literacy)		3
Computer Application Systems 54A (Microsoft Excel® I)		3

Computer Application Systems 88A (Microsoft Word® I)	3
<i>Select one course from the following:</i>	
CAS 72A; 72B; 72C; 72F; 72G; 72H; 72I; 72J	1
Total	10

**COMPUTER APPLICATION
SYSTEMS (CAS)**

8 COMPUTER LITERACY 3 UNITS
(See also Computer Science 8)

Introduction to computers including: Microsoft Windows, Microsoft Office, multimedia, the Internet browsers, World Wide Web, and awareness of types of computer software in use including programming languages, electronic mail, computer-based careers and trends, and other computing issues in today's society. No prior computer experience necessary; course recommended for students of any major who want to learn about computers and how to use them. Hands-on laboratory experience reinforces lecture. Strongly recommended: eligibility for Mathematics 65 or Mathematics 65A. May be offered in Distance Education delivery format. (May not receive credit if Computer Science 8 has been completed.) 2 hours lecture, 2 hours laboratory. Transfer: CSU, UC; AA/AS; (CAN CSCI 2).

41 INTRODUCTION TO UNIX 2 UNITS

Introduction to the UNIX operating system. Topics include components of a UNIX system, getting started on a UNIX system, working with directories and files, using redirection and pipelines, user to user communication, and text manipulation using UNIX editors and running C programs in a UNIX environment. Brief introduction to the Internet. Strongly recommended: Completion of, or concurrent enrollment, in Computer Science 14, or 18A, or 1 (Las Positas), (completed with a grade of "C" or higher). 1 hour lecture, 1½ hours laboratory. Transfer: CSU.

**50 INTRODUCTION TO COMPUTER
APPLICATION SYSTEMS 3 UNITS**

Use, impact, and functions of computerized information system capabilities in business and governmental organizations. Includes hardware, common software applications, security, telecommunications, artificial intelligence, methods of organizing computer resources within an organization, terminology, databases and the internal functioning of a computer system. Includes use of an IBM compatible personal computer and familiarization with the basic capabilities of word processing, electronic spreadsheets, a database and a programming language. 3 hours lecture, 1 hour laboratory. Transfer: CSU; CSU/GE: D7.

54A MICROSOFT EXCEL® I 3 UNITS

Introduction to spreadsheet applications using Microsoft Excel on the PC to create a variety of spreadsheets with emphasis on business application programs. Calculate date using function and formulas, create charts, link and consolidate worksheets. Includes Microsoft Office User Specialist (MOUS) Level I Core Certification preparation. Strongly recommended: Computer Science 8 or Computer Application Systems 8, or Computer Application Systems 50. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

54B MICROSOFT EXCEL® II 3 UNITS

Advanced spreadsheet applications using Microsoft Excel on the PC to create a variety of advanced spreadsheets with emphasis on business application programs. Includes Microsoft Office User Specialist (MOUS) Expert Certification preparation. Strongly recommended: Computer Application Systems 54A. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

55A MICROSOFT OFFICE-**APPLICATIONS INTEGRATION I****3 UNITS**

Core computer concepts and applications for effectively using the integrated features of Microsoft Office. Strongly recommended: Computer Science 8 or Computer Application Systems 8, or Computer Application Systems 50. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

55B MICROSOFT OFFICE**APPLICATIONS INTEGRATION II****4 UNITS**

Advanced computer concepts and applications for effectively using the integrated features of Microsoft Office. Strongly recommended: Computer Applications Systems 55A. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

58 INTRODUCTION TO DATABASE CONCEPTS**3 UNITS**

Introduction to database use and concepts. For majors requiring an overview of data storage, data retrieval, and data maintenance using a WINDOWS based relational database. Strongly recommended: Computer Application Systems 8 or Computer Science 8 or Computer Application Systems 50. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

70 COMPUTER KEYBOARDING AND FORMATTING**3 UNITS**

Basic computer keyboarding skills, proceeding from alphabetic keyboarding through numeric and symbolic. Emphasis on formatting correspondence, memos, tables, and reports. 2 hours lecture, 2 hours laboratory. Transfer CSU.

72 OFFICE TECHNOLOGY SKILLS MODULES**1 UNIT**

(Each module may be repeated two times)

Individualized, self-paced office skills modules offering development, review and improvement of office computer skills. Modules are not sequential and may be taken in any order. Program courses may include the following modules: (A) Elementary Computer Keyboarding I; (B) Elementary Computer Keyboarding II; (C) Intermediate Computer Keyboarding; (D) Introduction to Microsoft Word; (E) Introduction to Microsoft Excel; (F) Introduction to Microsoft PowerPoint; (G) Introduction to Microsoft Access; (H) Proofreading Skills; (I) Filing and Records Management; (J) Ten-Key; (K) Business English Skills I; (L) Business English Skills 11 and (M) Introduction to Computing. 54 hours for each module. 1 Unit for each module. Transfer: CSU.

80 BASIC-COMPUTER PROGRAMMING IN BASIC**4 UNITS**

Designed to develop proficiency in the introductory programming language-BASIC. Development of skills necessary to write computer programs such as programming logic and business application program coding. The Personal Computer (PC), its operating system, and how a computer performs internal functions. Strongly recommended: Computer Application Systems 50*. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; AA/AS.

82 DESIGNING WEB PAGES**3 UNITS**

Design and enhance Web Pages by integrating technology through creative web site design principles, basic HTML formatting and Microsoft Office® Suite applications. Includes creating and editing links and using pictures, graphics, shared borders, themes and tables. Includes integrating and publishing a webpage. Strongly recommended: Computer Application Systems 50 or Computer Application Systems 8 or Computer Science 8. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

88A MICROSOFT WORD-I**3 UNITS**

Basic word processing techniques using Microsoft Word to produce business letters, memos, reports, tables, and other documents. Includes Microsoft Office User Specialist (MOUS) Level I Core Certification preparation. Strongly recommended: Computer Application Systems 72A and 72B. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

88B MICROSOFT WORD-II**3 UNITS**

Advanced word processing techniques using Microsoft Word to produce complex business letters, memos, reports, tables, and other documents. Includes Microsoft Office User Specialist (MOUS) Level 2 Expert Certification preparation. Strongly recommended: Computer Application Systems 88A. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

89 INTRODUCTION TO DESKTOP PUBLISHING**USING PAGEMAKER****3 UNITS**

Introductory desktop publishing techniques using Pagemaker to create, revise, and print a variety of business documents. Strongly recommended: Computer Application Systems 88A*. 3 hours lecture, 1 hour laboratory.

91 INTRODUCTION TO HYPERTEXT**MARKUP LANGUAGE (HTML)****2 UNITS**

(See also Computer Science 91 and Electronics and Computer Technology 91) Design and development concepts and use of the standard HTML "tags" to develop web pages for use on the current standard World Wide Web latest version browsers (i.e., Netscape Communicator and Microsoft Explorer). Coverage includes the differences between various tags that work only on Communicator and only on Explorer, use of various web editing tools such as an HTML editor, graphics image editor, special effects applications, design considerations for "intelligent and attractive" web page layout including horizontal and vertical spacing commands, introduction to the use of multimedia (audio and movie clip) capability in HTML, hypertext link presentation using both text and graphical presentation, introduction to dynamic HTML tags such as Cascading Style Sheets, frames, tables, image maps, meta tags. Strongly recommended: Electronics and Computer Technology 90 or equivalent (*completed with a grade of "C" or higher*). (May not receive credit if Computer Science 91 or Electronics and Computer Technology 91 has been completed.) May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU; AA/AS

**Or equivalent.*

COMPUTER SCIENCE (CSCI)

DEGREE:**AA – COMPUTER SCIENCE (GENERAL)****AS – COMPUTER SCIENCE (GENERAL)****AA – COMPUTER SCIENCE
(EMPHASIS IN MATHEMATICS)*****AS – COMPUTER SCIENCE
(EMPHASIS IN MATHEMATICS)*****AA – LINUX ADMINISTRATION AND WEB SITE
MANAGEMENT
(PENDING STATE APPROVAL)****AS – LINUX ADMINISTRATION AND WEB SITE
MANAGEMENT
(PENDING STATE APPROVAL)****AA – LINUX SYSTEMS PROGRAMMING*
(PENDING STATE APPROVAL)****AS – LINUX SYSTEMS PROGRAMMING*
(PENDING STATE APPROVAL)**

CERTIFICATE OF ACHIEVEMENT:

COMPUTER PROGRAMMING
(PENDING STATE APPROVAL)

LINUX SYSTEMS ADMINISTRATION SPECIALIST
(PENDING STATE APPROVAL)

LINUX SYSTEMS PROGRAMMING SPECIALIST
(PENDING STATE APPROVAL)

ORACLE/SQL/SQL SERVER SPECIALIST
(PENDING STATE APPROVAL)

WEB SITE DEVELOPMENT SPECIALIST
(PENDING STATE APPROVAL)

CERTIFICATE OF COMPLETION:

MICROSOFT ACCESS/SQL DATABASE SPECIALIST

*This is a program oriented towards satisfying lower division requirements for the computer science major. Serves as a source of courses for professional programmers to upgrade skills. Courses also provided for majors in mathematics, business, biology, physics, engineering, computer science, geology and related disciplines.

COMPUTER SCIENCE (GENERAL)

ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR FALL SPRING

Computer Science 10* (Introduction to Programming Using Visual BASIC)	4
Computer Science 14** (Introduction to Structured Programming in C++)	4
Computer Science 91 (Introduction to Hypertext Markup Language (HTML) or Computer Application Systems 91 (Introduction to Hypertext Markup Language (HTML)) or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language (HTML))	2
Computer Science 41 (Introduction to UNIX)	2
Mathematics 40 (Concepts of Mathematics) or Mathematics 43 (Introduction to Probability and Statistics) or Mathematics 36 (Trigonometry) or Mathematics 37 (Trigonometry with an Emphasis on its Geometric Foundations)	3-5

SOPHOMORE YEAR FALL SPRING

Computer Science 15 (Object-Oriented Programming Methods in C++)	4
Computer Science 19A (Java Programming I)	4
<i>In addition take 8 units of Computer Science course chosen from:</i>	
Computer Science 11 (Programming Windows Using Visual BASIC)	2
Computer Science 12 (Advanced Visual Basic Programming)	2
Computer Science 18A (C Programming in the UNIX/Linux Environment)	2

Computer Science 20 (Introduction to Data Structures in C++)	4
Computer Science 21 (Computer Organization and Assembly Language Programming)	4
Computer Science 19B (Java Programming II)	4
Computer Science 40A (Introduction to the Oracle Database)	2
Computer Science 40B (PL/SQL Programming in the Oracle Database)	2
Computer Science 40C (Developer 2000 in the Oracle Database)	2
Computer Science 40D (Introduction to Oracle Database Administration)	2
Computer Science 47A (Access Database)	2
Computer Science 47B (Visual Basic for Applications in Excel, Word and Access)	2
Computer Science 47C (Transact-SQL in the SQL Server Database)	2
Computer Science 47D (SQL Server Database Administration)	2
Computer Science 42 (UNIX Tools, Shell Programming and System Administration Concepts)	2
Computer Science 44A (Perl Programming 1)	2
Computer Science 92 (Introduction to Dynamic Hypertext Markup Language (DHTML))	2
Computer Science 93 (Web Page Programming Using Microsoft VBScript/ActiveX/ASP)	2
Computer Science 94 (XML and XSL for the Web)	2
Total	31-33

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

This program is not designed to satisfy core requirements for most Computer Science majors. The Computer Science transfer major requires more mathematics and includes more breath-based topics. Students should consult a counselor and especially the catalog of the intended transfer institution of specific transfer information.

* Computer Science 11 may be substituted for CS 10 for students with prior programming experience.
** if a student is qualified to start at the Computer Science 15 level, the student may substitute any other 4 units of Computer Science courses. No mathematics or Computer Science course may be double counted except for General Education credit.

**COMPUTER SCIENCE—
EMPHASIS IN MATHEMATICS**

ASSOCIATE IN ARTS OR
ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR FALL SPRING

Computer Science 14* (Introduction to Structured Programming in C++)	4
Computer Science 15 (Object-Oriented Programming Methods in C++)	4
Computer Science 41 (Introduction to UNIX)	2
Mathematics 1 (Calculus I)	5
Mathematics 2 (Calculus II)	5

SOPHOMORE YEAR	FALL	SPRING
Computer Science 20 (Introduction to Data Structures in C++)		4
Computer Science 21 (Computer Organization and Assembly Language Programming)		4
Mathematics 6 (Elementary Linear Algebra) or Mathematics 8 (Discrete Mathematics)		3
Total		31

General Education Courses**
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

**If a student is qualified to start at the Computer Science 15 level. Computer Science 19 may be substituted for Computer Science 14. No Mathematics or Computer Science course may be double counted except for General Education credit. It is recommended that Computer Science majors take both Mathematics 6 and Mathematics 8.*

This program is designed to satisfy core requirements for many Computer Science transfer majors. However, students should consult a counselor and especially the catalog of the intended transfer institution for specific transfer requirements in the major. Some transfer institutions require Physics for example.

General Education courses should be carefully selected to meet the requirements of the intended transfer institution. Some transfer institutions require more general education units than required by the A.S. degree.

**COMPUTER SCIENCE—
 LINUX ADMINISTRATION AND
 WEB SITE MANAGEMENT**
 ASSOCIATE IN ARTS OR
 ASSOCIATE IN SCIENCE DEGREE
 (PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Computer Science 10 (Introduction to Programming in Visual Basic) or Computer Science 11 (Programming Windows Using Visual Basic)		2-4
Computer Science 41 (Introduction to UNIX)		2
Mathematics 31 (College Algebra) or Mathematics 33 (Finite Mathematics)†		3-4
Computer Science 14 (Introduction to Structured Programming in C++)		4
Computer Science 42 (UNIX Tools, Shell Programming and Systems Administration Concepts)		2
Mathematics 3G (Trigonometry) or Mathematics 37 (Trigonometry with an Emphasis on its Geometric Foundations)†		3-5

SOPHOMORE YEAR	FALL	SPRING
Computer Science 48A (Linux Systems Administration)		2
Computer Science 44A (Perl Programming I)		2

Computer Science 91 (Introduction to Hypertext Markup Language) (HTML) or Computer Application Systems 91 (Introduction to Hypertext Markup Language) (HTML) or Electronics and Computer Technology (Introduction to Hypertext Markup Language) (HTML)		2
Computer Science 92 (Introduction to Dynamic Hypertext Markup Language (DHTML))		2
Computer Science 44B (Perl Programming II)		2
Computer Science 48B (Linux Network Administration)		2
Computer Science 93 (Web Page Programming Using Microsoft VBScript/ActiveX/ASP)		2
Computer Science 94 (XML and XSL for the Web)		2
Elective*		2
Total		34-39

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

NOTE: This is NOT a university transfer degree program. If you intend to transfer to a 4-year university, consult a counselor.

**For elective credit, take any Computer Science prefix courses except that credit will be given for only one of Computer Science 10 (Introduction to Programming Using Visual Basic) and Computer Science 11 (Programming Windows Using Visual Basic)*

†Students with 2 years of high school algebra, 1 year of high school geometry and 1 year of high school trigonometry, or equivalent coursework, may replace these math courses with any higher-level mathematics, statistics or probability courses, with prior departmental approval.

**COMPUTER SCIENCE—
 LINUX SYSTEMS PROGRAMMING**
 ASSOCIATE IN ARTS OR
 ASSOCIATE IN SCIENCE DEGREE
 (PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Computer Science 14 (Introduction to Structured Programming in C++)†		4
Computer Science 41 (Introduction to UNIX)		2
Mathematics 1 (Calculus I)		5
English 1A (Critical Reading and Composition)		3
Computer Science 15 (Object-Oriented Programming Methods in C++) or Computer Science 1 9A (Object-Oriented Programming Methods in Java)*		4
Computer Science 1 8A (C Programming in the UNIX/Linux Environment)		2
Computer Science 42 (UNIX Tools, Shell Programming and Systems Administration Concepts)		2
Mathematics 2 (Calculus II)		5

SOPHOMORE YEAR	FALL	SPRING
Computer Science 20 (Introduction to Data Structures in C++) or Computer Science 20J (Introduction to Data Structures in Java)*	4	
Computer Science 18B (Linux Systems Programming I)	2	
Electives**	2	
Computer Science 18C (Linux Systems Programming II)	2	
Computer Science 18D (Linux Sockets Programming I)	2	
Electives **	4-6	
Total	43-45	

General Education Courses: For the Area A English Composition (Language and Rationality) for the AS degree, the student must take English 1A, (Critical Reading and Composition) (3). For the Area A English Composition (Language and Rationality) for the AA degree, the student must take English 1A (Critical Reading and Composition) (3), and either English 7 (Critical Thinking and Writing Across Disciplines) (3) or English 70 (Report Writing) (3). For other Specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

* *Computer Science 15/20 (Object-Oriented Programming Methods in C++/Introduction to Data Structures in C++) and Computer Science 19A/20J (Object-Oriented Programming Methods in Java/Introduction to Data Structures Using Java) are sequences, taught in C++ and Java respectively. If you take Computer Science 15 (Object-Oriented Programming Methods in C++), we suggest Computer Science 20 (Introduction to Data Structures in C++) as the next class in the sequence. If you take Computer Science 19A (Object-Oriented Programming Methods in Java), we suggest Computer Science 20J (Introduction to Data Structures Using Java). If you take both sequences, you may count only one toward the AA/AS degree.*

** *If you intend to transfer to a 4-year university, note that some universities require Computer Science 21 (Computer Organization and Assembly Language Programming), Mathematics 3 (Multivariable Calculus), Mathematics 6 (Elementary Linear Algebra), or Mathematics 8 (Discrete Mathematics) for transfer. Consult your intended transfer institution for their transfer requirements.*

† Computer Science 14 (Introduction to Structured Programming in C++) is an introductory computer-programming course, appropriate for people with little computer programming experience. However, it will be difficult for people who are not familiar with using computers. For those people, we suggest taking Computer Science 8 or Computer Application Systems 8 (Computer Literacy) or Computer Science 10 (Introduction to Programming using Visual Basic) prior to attempting Computer Science 14 (Introduction to Structured Programming in C++).

The Association for Computing Machinery (ACM) suggests that students in Computer Science take general Physics (4A, 4B, 4C) or general Chemistry (1A, 1B); therefore, these courses are acceptable as electives in the AA/AS degree program, as well as fulfilling the natural science requirements for the degree.

* *May be selected from the following:*
 Computer Science 18E (Linux Sockets Programming II)
 Computer Science 18F (Linux Gnome and GTK+Programming I)
 Computer Science 18G (Linux Gnome and GTK+Programming II)
 Computer Science 19B (Java Programming II)
 Computer Science 22 (Object-Oriented Programming Project)
 Computer Science 31 (Java Servlets)
 Computer Science 44A (Perl Programming I)
 Computer Science 44B (Perl Programming II)
 Computer Science 48A (Linux Systems Administration)
 Computer Science 48B (Linux Network Administration)
 Computer Science 48C (Topics in Linux Systems Administration)
 Mathematics 3 (Multivariable Calculus)

*Mathematics 4 (Elementary Differential Equations)
 Mathematics 6 (Elementary Linear Algebra)
 Mathematics 8 (Discrete Mathematics)
 Physics 4A (General Physics I)
 Physics 4B (General Physics II)
 Physics 4C (General Physics III)
 Chemistry 1A (General College Chemistry)
 Chemistry 1B (General College Chemistry)*

COMPUTER SCIENCE— COMPUTER PROGRAMMING

CERTIFICATE OF ACHIEVEMENT (PENDING STATE APPROVAL)

CORE COURSES	SUMMER	FALL	SPRING
Computer Science 14 (Introduction to Structured Programming in C++)†			4
Computer Science 41 (Introduction to UNIX)			2
Computer Science 15 (Object-Oriented Programming Methods in C++)			4
Computer Science 18A (C Programming in the UNIX/Linux Environment)			2
Computer Science 19A (Object-Oriented Programming Methods in Java)			4
Computer Science 42 (UNIX Tools, Shell Programming and Systems Administration Concepts)			2
Computer Science 19B (Java Programming II)			4
Computer Science 20 (Introduction to Data Structures in C++) or Computer Science 20J (Introduction to Data Structures Using Java)			4
Electives*			4
Total			30

† Computer Science 14 (Introduction to Structured Programming in C++) is an introductory computer-programming course, appropriate for people with little or no computer programming experience. However, it will be difficult for people who are not familiar with using computers. For those people, we suggest taking Computer Science 8 or Computer Application Systems 8 (Computer Literacy) or Computer Science 10 (Introduction to Programming using Visual Basic) prior to attempting Computer Science 14 (Introduction to Structured Programming in C++).

* *May be selected from the following*
 Computer Science 10 (Introduction to Programming using Visual Basic)
 Computer Science 11 (Programming Windows using Visual Basic)
 Computer Science 21 (Computer Organization and Assembly Language Programming)
 Computer Science 31 (Java Servlets)
 Computer Science 40A (Introduction to the Oracle Database)
 Computer Science 40B (PL/SQL Programming in the Oracle Database)
 Computer Science 40C (Developer 2000 in the Oracle Database)
 Computer Science 40D (Introduction to Oracle Database Administration)
 Computer Science 44A (Perl Programming I)
 Computer Science 44B (Perl Programming II)
 Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language) (HTML)
 Computer Science 92 (Introduction to Dynamic Hypertext Markup Language) (DHTML)
 Computer Science 93 (Web Page Programming using Microsoft VBScript/Active/ASP)
 Computer Science 94 (XML and XSL for the Web)

**COMPUTER SCIENCE— LINUX SYSTEMS
ADMINISTRATION SPECIALIST**

CERTIFICATE OF ACHIEVEMENT
(PENDING STATE APPROVAL)

CORE COURSES	SUMMER	FALL	SPRING
Computer Science 14 (Introduction to Structured Programming in C++)†			4
Computer Science 41 (Introduction to UNIX)			2
Computer Science 18A (C Programming in the UNIX/Linux Environment)			2
Computer Science 42 (UNIX tools, Shell Programming and System Administration Concepts)			2
Computer Science 44A (Perl Programming I)			2
Computer Science 48A (Linux Systems Administration)			2
Computer Science 48B (Linux Network Administration)			2
Computer Science 48C (Topics in Linux Systems Administration)			2
Electives*			2
Total			20

†Computer Science 14 (Introduction to Structured Programming in C++) is an introductory computer-programming course, appropriate for people with little or no computer programming experience. However, it will be difficult for people who are not familiar with using computers. For those people, we suggest taking Computer Science 8 or Computer Application Systems 8 (Computer Literacy) or Computer Science 10 (Introduction to Programming using Visual Basic) prior to attempting Computer Science 14 (Introduction to Structured Programming in C++).

*May be selected from the following
 Computer Science 18B (Linux Systems Programming I)
 Computer Science 18C (Linux Systems Programming II)
 Computer Science 44B (Perl Programming II)
 Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language) (HTML)
 Computer Science 92 (Introduction to Dynamic Hypertext Markup Language) (DHTML)
 Computer Science 93 (Web Programming using VBScript/ActiveX/ASP)
 Computer Science 94 (XML and XSL for the Web)

**COMPUTER SCIENCE – LINUX SYSTEMS
PROGRAMMING SPECIALIST**

CERTIFICATE OF ACHIEVEMENT
(PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Computer Science 14 (Introduction to Structured Programming in C++)†		4
Computer Science 41 (Introduction to UNIX)		2
Computer Science 15 (Object-Oriented Programming Methods in C++) or Computer Science 19A (Object-Oriented Programming Methods in Java)**		4

Computer Science 18A (C Programming in the UNIX/Linux Environment)	2
Computer Science 42 (UNIX Tools, Shell Programming and System Administration Concepts)	2

SOPHOMORE YEAR	FALL	SPRING
Computer Science 18B (Linux Systems Programming I)		2
Computer Science 20 (Introduction to Data Structures in C++) or Computer Science 20J (Introduction to Data Structures Using Java)**		4
Computer Science 44A (Perl Programming I)		2
Elective*		2-4
Computer Science 18C (Linux Systems Programming II)		2
Computer Science 18D (Linux Sockets Programming I)		2
Computer Science 18F (Linux Gnome and GTK+ Programming I)		2
Elective*		2-4
Total		32-36

†Computer Science 14 (Introduction to Structured Programming in C++) is an introductory computer-programming course, appropriate for people with little or no computer programming experience. However, it will be difficult for people who are not familiar with using computers. For those people, we suggest taking Computer Science 8 or Computer Application Systems 8 (Computer Literacy) or Computer Science 10 (Introduction to Programming using Visual Basic) prior to attempting Computer Science 14 (Introduction to Structured Programming in C++).

**Computer Science 15/20 (Object-Oriented Programming Methods in C++/Introduction to Data Structures in C++) and Computer Science 19A/20J (Object-Oriented Programming Methods in Java/Introduction to Data Structures Using Java) are sequences, taught in C++ and Java respectively. If you take Computer Science 15 (Object-Oriented Programming Methods in C++), we suggest Computer Science 20 (Introduction to Data Structures in C++) as the next class in the sequence. If you take Computer Science 19A (Object-Oriented Programming Methods in Java), we suggest Computer Science 20J (Introduction to Data Structures Using Java). If you take both sequences, you may count only one towards the certificate.

*For elective credit, take 4 or more units from the following group (may be taken in the Fall and/or Spring):

- Computer Science 18E (Linux Sockets Programming II)
- Computer 18G (Linux Gnome and GTK+Programming II)
- Computer Science 21 (Computer Organization and Assembly Language Programming)
- Computer Science 31 (Java Servlets)
- Computer Science 44B (Perl Programming II)
- Computer Science 48A (Linux Systems Administration)
- Computer Science 48B (Linux Network Administration)
- Computer Science 48C (Topics in Linux Systems Administration)

**COMPUTER SCIENCE –
ORACLE/SQL/SQL SERVER SPECIALIST**
CERTIFICATE OF ACHIEVEMENT
(PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Computer Science 14 (Introduction to Structured Programming in C++)†	4	
Computer Science 41 (Introduction to UNIX)	2	
Computer Science 19A (Object-Oriented Programming Methods in Java)	4	
Computer Science 40A (Introduction to the Oracle Database)	2	
SOPHOMORE YEAR	FALL	SPRING
Computer Science 40B (PL/SQL Programming in the Oracle Database)	2	
Computer Science 42 (UNIX tools, Shell Programming and System Administration Concepts)	2	
Elective*	2-4	
Computer Science 40C (Developer 2000 in the Oracle Database)	2	
Computer Science 40D (Introduction to Oracle Database Administration)	2	
Elective*	2-4	
Total	24-28	

† Computer Science 14 (Introduction to Structured Programming in C++) is an introductory computer-programming course, appropriate for people with little or no computer programming experience. However, it will be difficult for people who are not familiar with using computers. For those people, we suggest taking Computer Science 8 or Computer Application Systems 8 (Computer Literacy) or Computer Science 10 (Introduction to Programming using Visual Basic) prior to attempting Computer Science 14 (Introduction to Structured Programming in C++).

* May be selected from the following:
 Computer Science 19B (Java Programming II)
 Computer Science 20J (Introduction to Data Structures Using Java)
 Computer Science 31 (Java Servlets)
 Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language) (HTML)
 Computer Science 92 (Introduction to Dynamic Hypertext Markup Language) (DHTML)
 Computer Science 93 (Web Page Programming using Microsoft VBScript/ActiveX/ASP)
 Computer Science 94 (XML and XSL for the Web)

**COMPUTER SCIENCE–
WEB SITE DEVELOPMENT SPECIALIST**
CERTIFICATE OF ACHIEVEMENT
(PENDING STATE APPROVAL)

CORE COURSES	SUMMER	FALL	SPRING
Computer Science 41 (Introduction to UNIX)	2		
Computer Science 91 (Introduction to Hypertext Markup Language) (HTML) or Computer Application Systems 91 (Introduction to Hypertext Markup Language) (HTML) or Electronics and Computer Technology 91 (Introduction to Hypertext Markup Language) (HTML)	2		
Computer Science 42 (UNIX tools, Shell Programming and System Administration Concepts)	2		
Computer Science 92 (Introduction to Dynamic Hypertext Markup Language) (DHTML)	2		
Computer Science 44A (Perl Programming I)	2		
Computer Science 47A (Access Database)	2		
Computer Science 44B (Perl Programming II)	2		
Computer Science 93 (Web Page Programming Using VBScript/ActiveX/ASP)	2		
Computer Science 94 (XML and XSL for the Web)	2		
Electives*	2		
Total	20		

* May be selected from:
 Computer Science 31 (Java Servlets)
 Computer Science 40A (Introduction to the Oracle Database)
 Computer Science 40B (PL/SQL Programming in the Oracle Database)
 Computer Science 40C (Developer 2000 in the Oracle Database)
 Computer Science 40D (Introduction to Oracle Database Administration)
 Computer Science 47C (Transact - SQL in the SQL Server Database)
 Computer Science 47D (SQL Server Database Administration)
 Computer Science 48A (Linux Systems Administration)
 Computer Science 48B (Linux Network Administration)
 Computer Science 48C (Topics in Linux Systems Administration)

**COMPUTER SCIENCE—
MICROSOFT ACCESS/SQL
DATABASE SPECIALIST
CERTIFICATE OF COMPLETION**

CORE COURSES	SUMMER	FALL	SPRING
Computer Science 10 (Introduction to Programming Using Visual Basic) or Computer Science 11 (Programming Windows Using Visual Basic)	2-4		
Computer Science 47A (Access Database)		2	
Computer Science 47B (Visual Basic for Applications in Excel, Word, and Access)			2
Computer Science 12 (Advanced Visual Basic Programming)			2
Computer Science 47C (Transact SQL in the SQL Server Database)			2
Computer Science 47D (SQL Server Database Administration)			2
Computer Science 93 (Web Page Programming Using VBScript/ActiveX/ASP)			2
Electives*			0-2
Total			16-18

* If Computer Science 11 is chosen, then an elective is to be selected from:
 Computer Science 44A (Perl Programming I)
 Computer Science 44B (Perl Programming II)
 Computer Science 91 or Computer Application Systems 91 or Electronics and
 Computer Technology 91 (Introduction to Hypertext Markup Language) (HTML)
 Computer Science 92 (Introduction to Dynamic Hypertext Markup Language)
 (DHTML)
 Computer Science 94 (XML and XSL for the Web)

COMPUTER SCIENCE (CSCI)

(See also Computer Application Systems and Mathematics)

8 COMPUTER LITERACY **3 UNITS**
 (See also Computer Application Systems 8)
 Introduction to computers including: Microsoft Windows, Microsoft Office, multimedia, the Internet browsers, World Wide Web, an awareness of types of computer software in use including programming languages, electronic mail, computer-based careers and trends, and other computing issues in today's society. No prior computer experience necessary; course recommended for students of any major who want to learn about computers and how to use them. Hands-on laboratory experience reinforces lecture. Strongly recommended: eligibility for Mathematics 65 or Mathematics 65A. May be offered in Distance Education delivery format. (May not receive credit if Computer Application Systems 8 has been completed.) 2 hours lecture, 2 hours laboratory. Transfer: CSU, UC; AA/AS; (CAN CSCI 2).

**10 INTRODUCTION TO PROGRAMMING
USING VISUAL BASIC** **4 UNITS**
 Introduction to problem solving using the computer language Visual BASIC for Windows. Includes algorithm development, introduction to personal computer systems, windows, controls, event procedures, input/output, looping techniques, decision making, numeric, string and subscripted variables, functions, subroutines and text file manipulation. Intended for a general audience with no prior programming experience. Strongly recommended: Mathematics 65 or 65B (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; AA/AS.

**11 PROGRAMMING WINDOWS
USING VISUAL BASIC** **2 UNITS**
 Creation of MICROSOFT WINDOWS applications using the Visual BASIC programming language. Designed for students with prior programming experience. How to build programs around the Windows user interface and create Windows controls, dialog boxes and menus. Event driven programming. Includes special Visual BASIC features of variable types and scope, arrays, numeric functions, general procedures as well as debugging methods. Beginning programmers should take Computer Science 10 instead. Strongly recommended: A prior college level programming course, Mathematic 65 or 65B (*completed with a grade of "C" or higher*) and some experience with Windows operating system. 2 hours lecture, 1 hour laboratory. Transfer: CSU, UC.

12 ADVANCED VISUAL BASIC PROGRAMMING **2 UNITS**
 Creation of advanced Visual Basic projects that include Windows common controls, error handling, mouse and keyboard events, sequential and random access files, Multiple Document Interface (MDI). Object linking and embedding (OLE), ActiveX Data Objects (ADO) data controls, accessing existing databases using both ActiveX controls and simple SQL. Object Oriented Programming concepts (OOP), creation of class modules and collections of objects. Introduction to graphics and animation. Prerequisite: Computer Science 10 or 11 (*completed with a grade of "C" or higher*). 2 hours lecture, 1 hour laboratory. Transfer: CSU.

**13 INTRODUCTION TO MICROSOFT
C# PROGRAMMING** **4 UNITS**
 Introduction to basic programming concepts and structures using Microsoft's C#. Net. Using the Microsoft.NET IDE. Variables and basic I/O, looping, Boolean structures, array concepts, creating basic windows forms using C# coding for events, methods. Introduction to classes and inheritance concepts, and exception handling and string processing using C#. Strongly recommended: Computer Application Systems 8 or Computer Science 8 or Computer Application Systems 8 or Computer Science 10 or Computer Science 14 or Computer Science 19A. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

**14 INTRODUCTION TO STRUCTURED
PROGRAMMING IN C++** **4 UNITS**
 Introduction to structured programming and problem solving using the C++ language. Problem solving techniques, algorithm design, testing and debugging techniques, and documentation standards. C++ syntax: elementary operators, data types, control structures, user-defined and library functions, basic input/output, sequential files, arrays and structs. Appropriate for students with little or no programming experience, but comfortable using computers with modern GUI operating systems. Strongly recommended: Computer Science 8 or Computer Application Systems 8 or Computer Science 10 and Mathematics 55 or 55B (*completed with a grade of "C" or higher*) and eligibility for English 1A. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; AA/AS.

**15 OBJECT-ORIENTED PROGRAMMING
METHODS IN C++****4 UNITS**

Object-oriented programming methods employed to design, program, test and document intermediate level problems in the C++ language. Includes strings and string objects, multidimensional arrays, pointers, dynamic allocation, classes, overloaded functions and operators, inheritance and polymorphism, introduction to linked lists. Designed to satisfy Association for Computing Machinery (ACM) guidelines for CS I as required for computer Science and related transfer majors. Prerequisite: Computer Science 14 (*completed with a grade of "C" or higher*). Strongly recommended: Mathematics 20 (completed with a grade of "C" or higher). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; AA/AS.

**18A C PROGRAMMING IN THE
UNIX/LINUX ENVIRONMENT****2 UNITS**

Intended for students with knowledge of a high-level programming language, such as C++ or Java. Introduction to the C programming language, particularly the differences between C and C++ or Java. Programming in the UNIX/Linux environment. Variables, control structures, functions and parameter passing, strings, pointers, memory management, linked lists, recursion, the preprocessor (macros, libraries), command-line parameters, and use of the command-line compiler. Prerequisite: Computer Science 14 or equivalent and Computer Science 41 (*both completed with a grade of "C" or higher*). Strongly recommended: Eligibility for English 1A and Computer Science 15 or Computer Science 19A. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18B LINUX SYSTEMS PROGRAMMING I**2 UNITS**

Introduction to the Linux operating system and its resources. Concepts of multi-tasking operating systems, system calls, process control. Basic Linux shells, file handling, inter-process communication, and resource sharing. Prerequisite: Computer Science 15 or Computer Science 18A and Computer Science 42 (*all completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18C LINUX SYSTEMS PROGRAMMING II**2 UNITS**

Continuation of Computer Science 18B. Advanced Linux file handling, inter-process communication, resource sharing, libraries, daemons and shells. Properties of files under Linux: permissions, ownership, access rights, stream vs. block-special files, devices. Accessing directory tree and file information. The ANSI C standard file access library and the Linux file access library. Concepts of shells: executing commands, pipelines, I/O redirection, and tees. Prerequisite: Computer Science 18B (*completed with a grade of "C" or higher*). Strongly recommended: Computer Science 18C and Computer Science 15 or Computer Science 19A (may be taken concurrently). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18D LINUX SOCKETS PROGRAMMING I**2 UNITS**

Introduction to data communications programming with TCP/IP sockets under Linux. Introduction to the TCP/IP protocol suite, circuit and packet switching, error detection and handling, host and domain name resolution. Selected topics in telecommunications and data communications, such as the ISO/OSI 7-layer model for communications. Development of client/server and peer-to-peer network applications. Prerequisite: Computer Science 18B (*completed with a grade of "C" or higher*). Strongly recommended: Computer Science 18C and Computer Science 15 or Computer Science 19A (may be taken concurrently). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18E LINUX SOCKETS PROGRAMMING II**2 UNITS**

Continuation of Computer Science 18D. Advanced socket programming: using standard I/O on sockets, concurrent client servers, socket options, broadcasting, out-of-band data, the inetd daemon, network security and file handling. Development of several networked systems programs. Prerequisite: Computer Science 18C and Computer Science 18D (*both completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18F LINUX GNOME AND GTK+ PROGRAMMING I**2 UNITS**

Linux GUI programming using GTK+, and an overview of a few other Unix X-window programming toolkits (KDE, ncurses). Windows, widgets, signal and event handling, controls, input, lists, dialogs and menus. Development of small GTK+ programming projects under Linux. Prerequisite: Computer Science 18B (*completed with a grade of "C" or higher*). Strongly recommended: Computer Science 18C. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

18G LINUX GNOME AND GTK+ PROGRAMMING II**2 UNITS**

Advanced topics in Linux GUI programming using Gnome and GTK+. Advanced widgets, toolbars, numeric widgets, fonts, graphics, introduction to GNOME. Prerequisite: Computer Science 18F (*completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

**19A OBJECT-ORIENTED PROGRAMMING
METHODS IN JAVA****4 UNITS**

Object-oriented programming methods employed to design, program, test and document intermediate level problems in the Java language. Overview of Java core classes in Java.lang, language syntax and structure: simple data types, strings, arrays, vectors, loops, decisions, error handling, Classes, inheritance and polymorphism. Introduction to creating graphical user interfaces using the java.awt package. Designed to satisfy ACM guidelines for CS I as required for Computer Science and related transfer majors. Prerequisite: Computer Science 14 (*completed with a grade of "C" or higher*). Strongly recommended: Mathematics 20 (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; AA/AS.

19B JAVA PROGRAMMING II**4 UNITS**

Stream input and output, threads, an introduction to Java collection classes: vectors, sets, lists, and maps, advanced graphical interfaces using Swing components, introduction to Java Beans. Includes multi-class applications. Prerequisite: Computer Science 19A (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU.

20 INTRODUCTION TO DATA STRUCTURES IN C++**4 UNITS**

Design and implementation of larger projects in C++ using software engineering principles. Emphasis on definition and use of data structures. Includes specification of Abstract Data Types, general recursion, stacks, linked lists, queues, binary trees, sorting and searching algorithms, hashing techniques. Intended to satisfy ACM guidelines for CS 2 as required for Computer Science and related transfer majors. Prerequisite: Computer Science 15 (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

**20J INTRODUCTION TO
DATA STRUCTURES USING JAVA****4 UNITS**

Design and implementation of larger projects as Java applications using software engineering principles. Emphasis on definition and use of data structures. Includes specification of Abstract Data Types, general recursion, stacks, linked lists, queues, binary trees, sorting and searching algorithms, hashing techniques. Intended to satisfy ACM guidelines for Computer Science 2 as required for Computer Science and related transfer majors. Prerequisite: Computer Science 19A, (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

**21 COMPUTER ORGANIZATION AND
ASSEMBLY LANGUAGE PROGRAMMING****4 UNITS**

Basics of machine architecture, machine language, assembly language, operating system and higher level language interface. Data representation, instruction representation and execution, addressing techniques and use of macros. Space and time efficiency issues. Input/output including number conversion and use of system interrupts. Interrupt processing and interrupt handlers. Procedures including parameter passing and linkage to higher level languages. Prerequisite: Computer Science 14 (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN CSCI 10)

22 OBJECT-ORIENTED PROGRAMMING PROJECT 1 UNIT*(May be repeated 2 times)*

Designed for students considering transferring to UC Berkeley in Computer Science. Discussion of object-oriented programming methods and a large (over 1500 lines) object-oriented programming project. Selected topics from advanced data structures (graphs, sparse matrices, AVL trees, priority queues, etc.), memory management, inter-process communication, formal program design and verification, software engineering, others. Recommendation of a Computer Science instructor required. Concurrent enrollment in a UC Berkeley computer science class such as Computer Science 61A, Computer Science 61B or Computer Science 61C recommended. Prerequisite: Computer Science 20 or Computer Science 20J (*completed with a grade of "C" or higher*). 3 hours laboratory. Transfer: CSU, UC.

27A INTRODUCTION TO MFC PROGRAMMING 2 UNITS

Introduction to Windows programming using Microsoft Foundation Classes (MFC). Dialogs and controls, message handling, graphics, animation, the MFC class hierarchy, the MFC AppWizard, document/view architecture, ActiveX controls. Prerequisite: Computer Science 15 or equivalent. 1½ hours lecture, 1½ hours laboratory Transfer: CSU.

31 JAVA SERVLETS 2 UNITS

Introduction to basic Java Servlet capabilities as an alternative to Common Gateway Interface (CGI) to create interactive web pages including secure access to the web site, database interactivity, generate dynamic web pages and maintain client session data (i.e. cookies). Prerequisite: Computer Science 19A and 91 (*completed with a grade of "C" or higher*). 2 hours lecture, 1 hour laboratory. Transfer: CSU, UC

40A INTRODUCTION TO THE ORACLE DATABASE 2 UNITS

A survey of the features available in the Oracle database. An introduction to the use of Structured Query Language (SQL *Plus) to create, select, modify and update Oracle database records. Topics include relational database structure, data normalization, duties of the Database Administrator (DBA), Oracle Forms, Oracle Reports, the Loader, an introduction to PL/SQL and data warehousing. Prerequisite: Computer Science 10 or 14*. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

40B PL/SQL PROGRAMMING IN THE ORACLE DATABASE 2 UNITS

An introduction to PL/SQL programming in the Oracle database. Explanation of how SQL is used inside PL/SQL. Topics include PL/SQL syntax, built-in SQL functions, cursors, stored procedures, packages, triggers and error handling. Prerequisites: Computer Science 40A and Computer Science 10 or 14*. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

40C DEVELOPER 2000 IN THE ORACLE DATABASE 2 UNITS

An introduction to applications development in Oracle with Developer 2000. Topics include the development process, prototyping, programming for reuse, use of SQL and PL/SQL, Oracle Forms, Oracle Reports and Oracle Graphics. Prerequisites: Computer Science 40A and Computer Science 10 or 14*. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

40D INTRODUCTION TO ORACLE DATABASE ADMINISTRATION 2 UNITS

An introduction to the duties and responsibilities of the Oracle Database Administrator (DBA). Topics include Oracle architecture, hardware configurations, the installation process, database management (including, backup, recovery and security), supporting software packages and network considerations. Prerequisite: Computer Science 40A and Computer Science 10 or 14*. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

41 INTRODUCTION TO UNIX 2 UNITS

UNIX operating system capabilities, history, evolution and major variants. Components of a UNIX system, common commands, directory and file management, UNIX editors, shells, electronic mail and user communication, the C language development environment, Internet resources. Strongly recommended: Completion of or concurrent enrollment in Computer Science 14 or equivalent programming course in the C or C++ programming languages (*completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

42 UNIX TOOLS, SHELL PROGRAMMING AND SYSTEM ADMINISTRATION CONCEPTS 2 UNITS

Further experience with UNIX tools. Enhanced shells. Emphasis on Linux variant of UNIX. Basic networking concepts. Writing and testing shell scripts. Processes and scheduling. Security issues. Basic System administration. Prerequisite: Computer Science 41 (*completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

44A PERL PROGRAMMING I 2 UNITS

Introduction to the Perl programming language - data types, operators, variables, lists, arrays, hashes, control structures, regular expressions, files and data, pipes, references, subroutines, running and debugging Perl. Introduction to using Perl with the World Wide Web. Prerequisite: Computer Science 14 and Computer Science 41 or equivalent (*both completed with a grade of "C" or higher*). Strongly recommended: Computer Science 42 and Computer Science 91 or Computer Applications Systems 91 or Electronics and Computer Technology 91 (*all may be taken concurrently*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

44B PERL PROGRAMMING II 2 UNITS

Using Perl Modules, Object-oriented Perl, and Perl with the World Wide Web. Perl with sockets, CGI, databases, HTTP/HTML, mail, forms, Web servers and other internet resources. Prerequisite: Computer Science 44A, Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 and Computer Science 40A or Computer Science 47A (*all completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

47A MICROSOFT ACCESS DATABASE 2 UNITS

Introduction to the Microsoft Access database. Tables, queries, forms and reports. Referential integrity, key fields and joins, queries by both QBE and SQL methods. Brief introduction to the Microsoft SQL Server database. Strongly recommended: Computer Science 8 or Computer Application Systems 8 or Computer Application Systems 50. May be offered in Distance Education format. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU; AA/AS.

47B VISUAL BASIC FOR APPLICATIONS IN EXCEL, WORD AND ACCESS 2 UNITS

Introduction to Visual Basic for Applications in Microsoft Office. Use of VBA objects in Excel, Word and Access to extend the capabilities of each of these programs. Prerequisite: Computer Science 10 or Computer Science 11 and Computer Science 47A (*all completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU; AA/AS.

47C TRANSACT-SQL IN THE SQL SERVER DATABASE 2 UNITS

Introduction to the use of Transact-SQL in the SQL Server database. Topics include SQL Server architecture, data modeling, data definition and retrieval, action queries, triggers and data replication. Includes a review of basic Structured Query Language (SQL). Prerequisite: Computer Science 47A and Computer Science 10 or Computer Science 11 (*all completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

**Or equivalent.*

47D SQL SERVER DATABASE ADMINISTRATION 2 UNITS
Introduction to becoming a SQL Server Database Administrator (DBA). Topics include planning, installing and configuring SQL Server; managing database files and security; transferring data; database backup, restoring and monitoring; and automating tasks. Prerequisite: Computer Science 47A and Computer Science 10 or Computer Science 11 (*all completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

48A LINUX SYSTEMS ADMINISTRATION 2 UNITS
Administration of computers running the Linux operating system. The systems administrator job descriptions and duties: Administration tools, installing Linux, configuring the system, Linux resources, startup and shutdown, failure diagnosis and repair, file system management, file backup and recovery. Prerequisite: Computer Science 42 (may be taken concurrently). Strongly recommended: Computer Science 14 or equivalent and eligibility for English 1A. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

48B LINUX NETWORK ADMINISTRATION 2 UNITS
Managing Linux-based computers in a network. Configuring network interfaces and network services, such as NFS, DNS, Apache, and mail services. Security issues: firewalls, viruses, worms, Trojan horses. Introduction to internet and intranets, network administration tools. Prerequisite: Computer Science 48A (*completed with a grade of "C" or higher*). Strongly recommended: Computer Science 14. 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

48C TOPICS IN LINUX SYSTEMS ADMINISTRATION 2 UNITS
Selected topics in Linux systems and network administration. Managing users and groups, the help desk, Shell scripting and automating systems administration tasks, overview of perl, python, other scripting tools. Configuring the kernel and tuning the system. Prerequisite: Computer Science 48B and Computer Science 14 or equivalent (*both completed with a grade of "C" or higher*). 1½ hours lecture, 1½ hours laboratory. Transfer: CSU.

89 WEB PAGE PROGRAMMING USING PHP 2 UNITS
Introduction to using the non-Microsoft alternative to Microsoft's Active Server Pages to develop web pages. Programming web page objects using PHP. Use of PHP capabilities to access data from sequential data files and databases over the web. Designed for both Microsoft Internet Explorer and Netscape Communicator web page authors with a moderate background in programming concepts. Strongly recommended: Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 and Computer Science 14 or Computer Science 44A. May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory.

91 INTRODUCTION TO HYPERTEXT MARKUP LANGUAGE (HTML) 2 UNITS
(See also *Computer Application Systems 91 and Electronics and Computer Technology 91*)
Design and development concepts and use of the standard HTML "tags" to develop web pages for use on the current standard World Wide Web latest version browsers (i.e., Netscape Communicator and Microsoft Explorer). Coverage includes the differences between various tags that work only on Communicator and only on Explorer, use of various web editing tools such as an HTML editor, graphics image editor, special effects applications, design considerations for "intelligent" and "attractive" web page layout including horizontal and vertical spacing commands, introduction to the use of multimedia (audio and movie clip) capability in HTML, hypertext link presentation using both text and graphical presentation, introduction to dynamic HTML tags such as Cascading Style Sheet, frames, tables, image maps, meta tags. Strongly recommended: Electronics and Computer Technology 90 or equivalent (*completed with a grade of "C" or higher*). (May not receive credit if Computer Application Systems 91 or Electronics and Computer Technology 91 has been completed.) May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU; AA/AS.

92 INTRODUCTION TO DYNAMIC HYPERTEXT MARKUP LANGUAGE (DHTML) 2 UNITS
An expansion of HTML web authoring capabilities to cover Dynamic HTML as available in Java, JavaScript and VBScript. Use of third party software plug ins, Microsofts Active X, changing the "static" appearance of your HTML web page, user input forms and scripts to enhance web page capabilities. Basic programming in VBScript and JavaScript. Designed for web authors with a limited programming background who would like to use some of the basic capabilities of DHTML in their web pages. Prerequisite: Computer Science 91 or Computer Application Systems 91 or Electronics and Computer Technology 91 and Computer Science 10 or 14 (*all completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU; AA/AS.

93 WEB PAGE PROGRAMMING USING MICROSOFTVBSCRIPT/ACTIVEX/ASP 2 UNITS
Introduction to use of ActiveX controls. VBScript and ASP to develop web pages. Programming ActiveX objects using VBScript. Use of ASP to access databases over the web. Designed for Microsoft Internet Explorer web page authors with a moderate background in programming who wish to develop user-controlled applications with the ability to access data over the web. Prerequisite: Computer Science 8 or Computer Application Systems 8 or Computer Application Systems 50 or Computer Science 10 and Computer Science 92 (*completed with a grade of "C" or higher*). May be offered in a Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU.

94 XML AND XSL FOR THE WEB 2 UNITS
An introductory course in the grammar, syntax, capabilities and uses of eXtensible Markup Language (XML) on web applications and its layout use under eXtensible Style Language (XSL) for sorting and filtering capabilities. Prerequisite: Computer Science 19A and Computer Science 92 (*all completed with a grade of "C" or higher*). 2 hours lecture, 1 hour laboratory. Transfer: CSU; AA/AS.

CONTEMPORARY STUDIES

CONTEMPORARY STUDIES ½ - 4 UNITS
Content developed around selected areas of contemporary issues and thought. May be offered through any non technical-vocational course title contained in the Catalog by using the number 49. The same course content may not be offered more than two semesters under this course number. 1-6 hours.

CONTINUING EDUCATION STUDIES

CONTINUING EDUCATION STUDIES ½ - 4 UNITS
Continuing education courses include both full term and short term courses in a wide variety of course patterns, field studies, seminars, workshops, and any other such educational activities that will meet the educational needs of those students pursuing a community college program. May be offered under any course title contained in the Catalog, using the numbers 150 through 199. Continuing Education Studies may be repeated. 1-12 hours.

CORRECTIONAL SCIENCE

(See Administration of Justice)

CREATIVE ARTS (CRAR)

10 PERFORMING AND VISUAL ARTS 3 UNITS
 Interdisciplinary approach to art, music, and drama which may also include film and opera. Critical analysis and response through observing, analyzing, reporting, and discussing local performances and exhibits attended. 3 hours. Transfer: CSU, UC; CSU/GE: CI; 1GETC: Area 3A; AA/AS.

DANCE (DANC)

1 DANCE TECHNIQUE 1/2 UNIT
(May be repeated 3 times)
 Movement skills, rhythmic structure of dance, qualities of movement, special design and appreciation of dance. Emphasis on creation of individual and group compositions. Includes Afro-American dance, ballet, disco/ballroom dance, folk dance, jazz dance, modern dance, square dance, and tap dance. (See Physical Education 1) 2 hours. Transfer: CSU, UC, CSU/GE: CI; 1GETC: Area 3A; AA/AS.

5 DANCE WORKSHOP 1 1/2 UNITS
(May be repeated 3 times)
 Dance techniques, choreographic principles and stage presentation. Includes classical ballet, modern ballet, modern dance, polyrhythmic jazz, improvisation, Broadway musical, ethnic and folk dance. 1 hour lecture, 2 hours laboratory. Transfer: CSU, UC.

6 DANCE PRODUCTION – CHOREOGRAPHY 1-3 UNITS
(May be repeated 3 times)
 Choreographic principles of dance composition and stage presentation. Participation in dance production with the creation of new works directed toward large groups, trios, duets, and solos, possibly leading to scheduled performances; minimal participation in technical and business aspects of production. Prerequisite: Dance 5. 3-9 hours laboratory. Transfer: CSU, UC.

DENTAL HYGIENE (DHYG)

**DEGREE:
 AA– DENTAL HYGIENE**

The Dental Hygiene Program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the council on Post-secondary Accreditation and by the United States Department of Education. Completion of the two-year program qualifies the student to take the National Dental Hygiene Board examination and the California Dental Hygiene State Board Licensure examination for licensure as a Registered Dental Hygienist. The program includes courses such as Clinical Dental Hygiene, Dental Radiology, General and Oral Pathology, Expanded Functions for the Dental Hygienist, Educational Theories in Dental Hygiene Education, Community Dental Health. These are but a few of the courses in the program. The program admits 18 students per year.

Students interested in dental hygiene need a background in the basic sciences, English, psychology and speech. Dental Hygienists are primary health care providers, including areas of clinical practice, research, educational theory, adult learning concepts and communication. This is a special admission program. For information contact the Dental Hygiene office at (510-723-6900).

SPECIAL APPLICATION REQUIRED

Prerequisites for admission to this program include: (1) Completion of Dental Hygiene application; (2) Anatomy 1, Chemistry 30A, Chemistry 30B, Physiology 1, Microbiology 1 or equivalents completed with a grade of "C" or higher prior to February 1 of the year of application; (3) Speech 1, Psychology 1, Sociology 1 or equivalents (*completed with a grade of "C" or higher*) by June 30th of the year of application; (4) Completion of the Allied Health Professions Admission Test (AHPAT) by February 1 of the year of application.

**DENTAL HYGIENE
 ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Dental Hygiene 60 (Dental Anatomy and Morphology)		1½
Dental Hygiene 61 (Head and Neck Anatomy)		2
Dental Hygiene 69A (Oral Health Care Education)		2
Dental Hygiene 71A (Pre-Clinical Dental Hygiene)		4
Dental Hygiene 74A (Dental Radiography I)		3
Health 60** (Responding to Emergencies)		1
Health 70B* (Basic Life Support for Health Care Providers)		½
Dental Hygiene 51 (General and Oral Pathology)		4
Dental Hygiene 55A (Dental Materials)		1
Dental Hygiene 69B (Treatment and Evaluation in Dental Hygiene)		1
Dental Hygiene 71B (Clinical Dental Hygiene)		4
Dental Hygiene 75 (Medical Emergencies)		1
Dental Hygiene 73 (Educational Theories in Dental Hygiene Care)		1½
Dental Hygiene 74B (Dental Radiography II)		1½
SOPHOMORE YEAR		
Dental Hygiene 52A (Periodontics)		2
Dental Hygiene 54 (Pharmacology)		2
Dental Hygiene 56A (Community Dental Health I)		1
Dental Hygiene 57 (Expanded Functions for the Dental Hygienist)		2
Dental Hygiene 80A (Patient Management)		1
Dental Hygiene 81A (Clinical Practice I)		4
Dental Hygiene 82A (Clinical Experience Seminar I)		1
Dental Hygiene 52B (Advanced Periodontics)		1
Dental Hygiene 56B (Community Dental Health II)		1
Dental Hygiene 58 (Dental Office Practice)		1
Dental Hygiene 80B (Advanced Clinical Topics)		1
Dental Hygiene 81B (Clinical Practice II)		5
Dental Hygiene 82B (Clinical Experience Seminar II)		1
Dental Hygiene 83 (Patients with Special Needs)		1
Nutrition 1*** (Basic Nutrition)		3
Total		55

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

**A student who presents a current Professional Rescuer Cardiopulmonary Resuscitation Card may request a waiver of Health 70B.*

***A student who presents a current Responding to Emergencies Card may request a waiver of Health 60.*

**** Completion of Nutrition 1 is strongly recommended prior to entrance into the Dental Hygiene program.*

Note: To progress in the Dental Hygiene Program and to graduate from the program, students must earn a minimum grade of "C" in each course.

DENTAL HYGIENE (DHYG)

51 GENERAL AND ORAL PATHOLOGY 4 UNITS

Oral pathology and dysfunctions of systems of the body which directly affect the oral cavity. Significance of oral and general pathology in relationship to treatment by the dental hygienist. Corequisite: Concurrent enrollment in the Dental Hygiene Program. 4 hours. Transfer: CSU.

52A PERIODONTICS 2 UNITS

Normal periodontium and the deviations from health, with emphasis on the hygienists' responsibility in examination, data collection and recognition of disease. Dental hygiene therapy for periodontal disease prevention, active case management and maintenance programs. Contributing factors to disease process and case management. Decision making for patient referral to the periodontal specialist. Prerequisite: Dental Hygiene 51 (completed with a grade of "C" or higher). 2 hours. Transfer: CSU.

52B ADVANCED PERIODONTICS 1 UNIT

Continuation of 52A. Research-based comprehensive periodontal therapy. Focus on systemic diseases and their relationship to periodontal disease and adjunct periodontal treatment modalities through the use of evidence based research and case studies. Prerequisite: Dental Hygiene 52A (completed with a grade of "C" or higher). 1 hour. Transfer: CSU.

54 PHARMACOLOGY 2 UNITS

Sources, dosages, therapeutic action, and side effects of drugs used in dentistry and dental hygiene. Includes legal and ethical aspects of drug usage. Corequisite: Dental Hygiene 57. 2 hours. Transfer: CSU.

55A DENTAL MATERIALS 1 UNIT

General and specialty practice materials and techniques. Prerequisite: Dental Hygiene 69A (completed with a grade of "C" or higher). 1 hour lecture, 3 hours laboratory. Total weeks—9. Transfer: CSU.

56A COMMUNITY DENTAL HEALTH I 1 UNIT

Study of individual and community oral health problems, relative to personal, family, and public health needs. Corequisite: Dental Hygiene 80A. Strongly recommended: Speech 1, or 10, or 30. 1 hour. Transfer: CSU.

56B COMMUNITY DENTAL HEALTH II 1 UNIT

Continuation of Dental Hygiene 56A. Individual and community oral health problems, with emphasis on the dental hygienist as a resource person. Prerequisite: Dental Hygiene 56A (completed with a grade of "C" or higher). 1 hour Transfer: CSU.

57 EXPANDED FUNCTIONS FOR THE DENTAL HYGIENIST 2 UNITS

Dental hygiene advanced clinical functions including clinical practice in administration of local anesthetics, topical anesthetic agents, nitrous oxide/oxygen analgesia and soft tissue curettage. Corequisite: Dental Hygiene 54 and 81A. 1 hour lecture, 3 hours clinical. Transfer: CSU.

58 DENTAL OFFICE PRACTICE 1 UNIT

Dental office practices based on sound dental economics, legal and ethical framework of the State Dental Practice Act, and patient needs and services. Opportunities in the dental hygiene profession. Corequisite: Dental Hygiene 81B. 1 hour. Transfer: CSU.

60 DENTAL ANATOMY AND MORPHOLOGY 1½ UNITS

Development, eruption, and structures of the intraoral cavity and extra-oral structures; structures of the teeth, tooth numbering systems, occlusion and anomalies. Identification of teeth and oral structure. Prerequisite: Admission into the Dental Hygiene Program. Corequisite: Dental Hygiene 69A and 71A. 1½ hours. Transfer: CSU.

61 HEAD AND NECK ANATOMY 2 UNITS

Embryology of the head, neck and oral cavity, structure and function of the oral cavity and adjacent structures. Emphasis on clinical recognition or normal structures, the anatomical relationships between structures their vascular supply and the regional osteology. Corequisite: Dental Hygiene 69A and 71A. 2 hours. Transfer: CSU.

69A ORAL HEALTH CARE EDUCATION 2 UNITS

Educational techniques and technical skills used to assist individuals and groups in becoming integrally involved in their dental/oral health care. Information and application of information related to oral health care oral health promotion and disease prevention. Corequisite: Current enrollment in the Dental Hygiene Program. 2 hours. Transfer: CSU.

69B TREATMENT AND EVALUATION IN DENTAL HYGIENE 1 UNIT

Continued development of the principles of assessment in dental hygiene care. Prevention, non-surgical periodontal therapy and maintenance through application of the Dental Hygiene process, including assessment, planning, goal setting, implementing and evaluation used in providing dental hygiene care. Emphasis on evaluation of dental hygiene care as an essential component of the dental hygiene process. Prerequisite: Dental Hygiene 69A and 71A (both completed with a grade of "C" or higher). Corequisite: Dental Hygiene 75. 1 hour. Transfer: CSU.

71A PRE-CLINICAL DENTAL HYGIENE 4 UNITS

Laboratory and clinical experiences in patient assessment, dental hygiene care planning, goal setting and implementation of instrumentation techniques for providing prevention oriented dental care and non-surgical periodontal therapy. Emphasis on post treatment evaluation. Application of theory to the treatment of clinical patients. Corequisite: Dental Hygiene 60 and 69A. 2 hours lecture, 6 hours clinical. Transfer: CSU.

71B CLINICAL DENTAL HYGIENE 4 UNITS

Continuation of laboratory and clinical experiences in patient assessment with emphasis on dental hygiene care planning, goal setting and implementation of instrumentation techniques for providing prevention-oriented dental care and non-surgical periodontal therapy. Emphasis on post-treatment evaluation. Introduction to the technical skills and procedures used in the clinical practice of dental hygiene. Prerequisite: Dental Hygiene 71A (completed with a grade of "C" or higher). Corequisite: Dental Hygiene 69B and 75. 1 hour lecture, 9 hours clinical. Transfer: CSU.

73 EDUCATIONAL THEORIES IN DENTAL HYGIENE CARE 1½ UNITS

Principles of adult learning theory and basics of research processes associated with clinical dental hygiene practice. Teaching learning and research processes. Application of principles for patient education. Identification of effective environments for teaching and learning. Prerequisites: Dental Hygiene 69A and 71A. Corequisites: Dental Hygiene 69B and 71B. 1½ hours. Transfer: CSU.

74A DENTAL RADIOGRAPHY I **3 UNITS**
 Introduction to principles of radiography, x-radiation protection, operation of x-ray equipment, Infection Control procedures and Hazardous Waste maintenance. Practice in film exposure, processing and mounting and interpretation. Prerequisite: Concurrent enrollment in the Dental Hygiene Program. 2 hours lecture, 3 hours laboratory.

74B DENTAL RADIOGRAPHY II **1 1/2 UNITS**
 Continuation of laboratory and clinical experience in exposing films, group and individual criticism of mounted films; principles of Panographic radiology; special patient needs; occlusal and pedodontic surveys; emphasis on radiographic interpretative skills. Prerequisite: Dental Hygiene 74A (completed with a grade of "C" or higher). 1/2 hour lecture, 3 hours clinical.

75 MEDICAL EMERGENCIES **1 UNIT**
 Prevention, recognition and management of medical emergencies that occur in the dental setting. Corequisite: Dental Hygiene 69B and Dental Hygiene 71B. 1 hour. Transfer: CSU.

80A PATIENT MANAGEMENT **1 UNIT**
 Dental Hygiene therapy with emphasis on the child patient and periodontal patients, education in prevention and control of dental disease, and case documentation. Prerequisite: Dental Hygiene 71B. Corequisite: Dental Hygiene 56A and 81A. 1 hour. Transfer: CSU.

80B ADVANCED CLINICAL TOPICS **1 UNIT**
 Development of skills and knowledge in dental hygiene therapy and disease control with emphasis on comprehensive patient care. Prerequisite: Dental Hygiene 80A (completed with a grade of "C" or higher). Corequisite: Dental Hygiene 81 B, 82B and 83. 1 hour. Transfer: CSU.

81A CLINICAL PRACTICE I **4 UNITS**
 Continuation of clinical experience in performing dental hygiene therapy with emphasis on the young child and periodontal patient; patient education in prevention and control of dental disease and emergency procedures. Prerequisite: Dental Hygiene 69B and Dental Hygiene 71B (both completed with a grade of "C" or higher). Corequisite: Dental Hygiene 56A, 57, 80A and 83. 12 hours clinical. Transfer: CSU.

81B CLINICAL PRACTICE II **5 UNITS**
 Continuation of clinical experience with a variety of clinical cases of adults and children to include a broad spectrum of clinical applications. Prerequisite: Dental Hygiene 81A (completed with a grade of "C" or higher). Corequisites: Dental Hygiene 58, 80B, 82B, and 83. 15 hours clinical. Transfer: CSU.

82A CLINICAL EXPERIENCE SEMINAR I **1 UNIT**
 Discussion and analysis of case-based clinical situations. Case studies addressing client care, protocol and advanced clinical techniques. Corequisite: Dental Hygiene 80A. 1 hour. Transfer: CSU.

82B CLINICAL EXPERIENCE SEMINAR II **1 UNIT**
 Discussion and analysis of complex case-based clinical situations. Ethical, legal decision making, occupational standards and incident reporting in the clinical setting. Corequisite: Dental Hygiene 58 and 80B. 1 hour. Transfer: CSU.

83 PATIENTS WITH SPECIAL NEEDS **1 UNIT**
 Dental Hygiene therapy with emphasis on patients with special needs. Prerequisite: Dental Hygiene 80A (completed with a grade of "C" or higher). Corequisite: Dental Hygiene 80B and 81B. 1 hour. Transfer: CSU.

DESIGN TECHNOLOGY (DSGN)

DEGREE:
AS – DESIGN TECHNOLOGY
(ELECTRO-MECHANICAL)

CERTIFICATE OF ACHIEVEMENT:
DESIGN TECHNOLOGY (ELECTRO-MECHANICAL)

This associate degree prepares the student for entry level employment as a draftsman in engineering and manufacturing industries, as well as for positions existing with federal, state, and local government agencies. With the addition of practical industrial experience, draftsmen may eventually become designers in their chosen area of concentration. Includes introduction to and training in computer aided drafting.

DESIGN TECHNOLOGY – ELECTRO-MECHANICAL ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Design Technology 52*+ (Machine Drafting)	3	
Design Technology 62A+ (Computer Aided Drafting – CAD)	3	
Industrial Technology 74** (Measurements and Calculations)	3	
Design Technology 61 (Electronic Drafting)	3	
Design Technology 62B+ (Computer Aided Design Drafting – CADD)	3	
Industrial Technology 61 (Manufacturing Processes)	2	
Engineering Technology 57 (Electrical Systems)	2	

SOPHOMORE YEAR	FALL	SPRING
Design Technology 65 (Electronic Design Technology)	3	
Design Technology 66A+ (Mechanical Design Technology)	3	
Design Technology 69 (Structural Concepts for Drafters)	4	
Design Technology 66B+ (Design Technology)	3	
Engineering Technology 60* (Engineering Materials Technology)	2	
Engineering Technology 66 (Graphical Kinematics)	2	
Total	36	

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

**Or equivalent.*
***Satisfies Mathematics requirement for graduation.*
+Offered every semester

DESIGN TECHNOLOGY– ELECTRO-MECHANICAL CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR	FALL	SPRING
Design Technology 52*+ (Machine Drafting)	3	
Design Technology 62A+ (Computer Aided Drafting-CADD)	3	

Industrial Technology 74 (Measurements and Calculations)	3	
Design Technology 61 (Electronic Drafting)	3	
Design Technology 62B+ (Computer Aided Design Drafting-CADD)	3	
Industrial Technology 61 (Manufacturing Processes)	2	
Engineering Technology 57 (Electrical Systems)	2	
SOPHOMORE YEAR		
		FALL SPRING
Design Technology 65 (Electronic Design Technology)	3	
Design Technology 66A+ (Mechanical Design Technology)	3	
Design Technology 69 (Structural Concepts for Drafters)	4	
Design Technology 66B+ (Design Technology)	3	
Engineering Technology 60* (Engineering Materials Technology)	2	
Engineering Technology 66 (Graphical Kinematics)	2	
Total	36	

*Or equivalent

+ Offered every semester.

DESIGN TECHNOLOGY (DSGN)

50 MECHANICAL DRAFTING FOR NON-MAJORS 2 UNITS

Use of drafting instruments and materials. Basic fundamentals of free-hand sketching, pictorial drawings, orthographic projection, lettering, geometric construction, dimensioning, sectioning, and linework. Includes a general approach to Computer Aided Drafting (CAD). Designed to provide a working knowledge of methods of graphical communication. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

52 MACHINE DRAFTING 3 UNITS

Introduction to basic drafting fundamentals and Computer Aided Drafting (CAD). Designed to provide a working knowledge of methods of graphical communication. Foundation course in Design Technology/Computer Aided Drafting (CAD) sequence. Drafting instruments, equipment, axonometric projections, first and third angle projection, lettering, geometric construction, descriptive geometry, and dimensioning and tolerancing. 1.5 hours lecture, 4.5 hours laboratory. Transfer: CSU.

55 BLUEPRINT READING AND SKETCHING 2 UNITS

Orthographic projection, principles of sectioning, functional drawing practices, dimensioning; sketching, using orthographic and isometric principles; familiarity with specifications; reading of blueprints; interpretation of commonly-used symbols; interpretation of materials lists and bills of materials; making of takeoffs. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

61 ELECTRONIC DRAFTING 3 UNITS

Preparation of electrical and electronic drawings using standard graphical symbols currently utilized in industry. Schematic, wiring, cable, interconnecting block and logic diagrams. Application of electronic components, abbreviations and electronic terminology, using Computer Aided Drafting (CAD). Strongly recommended: Design Technology 52. 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

62A COMPUTER AIDED DRAFTING (CAD) 3 UNITS

(May be repeated 3 times)

Introduction to Computer Aided Drafting with emphasis on user terminology. Exposure to the various types of CAD systems, hardware and associated software. Creating of 2-D drawings using CAD command structure. Applications of basic Drafting fundamentals. Prerequisite: Design Technology 52 (may be taken concurrently). 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

62B COMPUTER AIDED DESIGN DRAFTING (CADD) 3 UNITS

(May be repeated 3 times)

Continuation of Design Technology 62A. Fundamentals of drafting; applications of CAD software, hardware, and mechanical drafting. Emphasis on hands-on use of software, hardware, 3-D and applying wire frame and solid modeling. Prerequisite: Design Technology 62A. 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

65 ELECTRONIC DESIGN TECHNOLOGY 3 UNITS

Preparation of logic diagrams with the use of logic symbols. Introduction to printed circuit design. Analog and digital printed circuit layout and taping techniques. Printed circuit documentation and parts list. Strongly recommended: Design Technology 61 or Engineering 20. 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

66A MECHANICAL DESIGN TECHNOLOGY 3 UNITS

Principles and practice of Mechanical Design Technology, application of descriptive geometry, auxiliary views and revolutions to mechanical detail drawings, geometric tolerancing applied to complete design assemblies. Strongly recommended: Design Technology 52. 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

66B DESIGN TECHNOLOGY 3 UNITS

Continuation of principles from Design Technology 66A. Introduction to numerical control, includes flow and interaction between manufacturing and drafting, drafting documentation, revision systems, complex drawings and drawings of entire systems. Explanation of career opportunities, potential salaries and promotions, skills required and attitudes necessary to succeed in industry. Emphasis on designing an electrical/mechanical project using reverse engineering. Prerequisite: Design Technology 66A. 1½ hours lecture, 4½ hours laboratory. Transfer: CSU.

69 STRUCTURAL CONCEPTS FOR DRAFTERS 4 UNITS

Introduction to technical statics; resolution of forces, basic coplanar forces systems. Emphasis on graphical analysis. Strongly recommended: Design Technology 61 or Industrial Technology 74. 3 hours lecture, 3 hours laboratory.

*Or equivalent.

DISTANCE EDUCATION

Distance Education offers students a flexible schedule of courses through various modes of technology, such as television, video, CD-ROMs, and the internet. Current types of courses include Telecourses (television/videobased), On-line courses (web-based), and CD-ROM-based courses, most of which fulfill General Education requirements. Students will find the complete list of Distance Education courses at www.chabotcollege.edu (select "Distance Education" or in the back pages of the current class schedule. Courses may also be found individually under each subject heading. For questions please call the Distance Education Center at (510) 723-7016.

DRAMA

(See Theater Arts)

**EARLY CHILDHOOD DEVELOPMENT
(ECD)**

**DEGREE:
AA – EARLY CHILDHOOD DEVELOPMENT**

**CERTIFICATE OF ACHIEVEMENT:
EARLY CHILDHOOD DEVELOPMENT
(BASIC TEACHER)**

**CERTIFICATE OF COMPLETION:
EARLY CHILDHOOD DEVELOPMENT
(ASSOCIATE TEACHER)**

This two-year diploma program leads to an Associate in Arts Degree in Early Childhood Development and two Certificates: Early Childhood Development (Basic Teacher), and Early Childhood Development (Associate Teacher). The degree provides a broad background in early childhood education. Students are trained to become teachers of young children in a variety of preschool and educational settings. The care and education of young children demands a high level of personal and professional integrity and enthusiasm.

The Child Development major builds a foundation of understanding and skills for those interested in providing services to children and families. The program is relevant for early childhood and elementary school teachers, school and educational program directors, recreation leaders, parents and potential parents.

**EARLY CHILDHOOD DEVELOPMENT
ASSOCIATE IN ARTS DEGREE**

	FALL	SPRING
FRESHMAN YEAR		
Early Childhood Development 50 (Early Childhood Education and Care)	3	
Early Childhood Development 51 (Prenatal to Early Childhood)	3	
Early Childhood Development 62 (Child, Family, and Community)	3	
Early Childhood Development 63 (Early Childhood Curriculum)	4	
SOPHOMORE YEAR		
Early Childhood Development 55 (The Professional Care-Giver)	2	
Early Childhood Development 60 (Teaching Special Needs Infants and Preschoolers)	3	
Early Childhood Development 90 (Supervised Experience)	4	
Early Childhood Development 95 (Work Experience)	1	
Early Childhood Development 96 (Work Experience Seminar)	1	
Option*	2-3	
Total	26-27	

Note: Students should review with Early Childhood Development instructors the requirements of the California Child Development Permit Matrix.

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

* One course to be selected from the following:

- Early Childhood Development 52 (Childhood and Adolescence) (3 units)
- Early Childhood Development 61 (Literature for the Young Child) (3 units)
- Early Childhood Development 64 (Play: Materials and Environments) (3 units)
- Early Childhood Development 65 (Administration) (3 units)
- Early Childhood Development 67 (Infant and Toddler Development and Care Giving) (3 units)
- Early Childhood Development 68 (Program Supervision) (3 units)
- Early Childhood Development 80 (Advanced Topics in Childhood Development)(3 units)
- Early Childhood Development 83 (Adult Supervision) (2 units)
- Early Childhood Development 69 (Observing and Recording Behavior) (3 units)
- Early Childhood Development 76 (Methods and Materials for Special Needs Children) (3 units)
- Early Childhood Development 77 (Introduction to Social Services and Community Resources) (3 units)
- Early Childhood Development 78 (Language Development) (3 units)
- Early Childhood Development 79 (Anti-Bias Curriculum for Young Children) (3 units)
- Nutrition 2 (Nutrition for Human Development) (2 units)

**EARLY CHILDHOOD DEVELOPMENT
(BASIC TEACHER)**

CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Early Childhood Development 50 (Early Childhood Education and Care)	3	
Early Childhood Development 51 (Prenatal to Early Childhood)	3	
Early Childhood Development 55 (The Professional Care-Giver)	2	
Early Childhood Development 62 (Child, Family, and Community)	3	
Early Childhood Development 63 (Early Childhood Curriculum)	4	
Early Childhood Development 90 (Supervised Experience)	4	
Early Childhood Development 95 (Work Experience)	1	
Early Childhood Development 96 (Work Experience Seminar)	1	
Early Childhood Development 52 (Childhood and Adolescence) or Early Childhood Development 60 (Teaching Special Needs Infants and Preschoolers)	3	
Total	24	

**EARLY CHILDHOOD DEVELOPMENT
(ASSOCIATE TEACHER)
CERTIFICATE OF COMPLETION**

CORE COURSES	FALL SPRING
Early Childhood Development 50 (Early Childhood Education and Care)	3
Early Childhood Development 51 (Prenatal to Early Childhood)	3
Early Childhood Development 62 (Child, Family, and Community).	3
Early Childhood Development 63 (Early Childhood Curriculum)	4
Total	13

**EARLY CHILDHOOD DEVELOPMENT
(ECD)**

(These courses are designed to satisfy the recommendations of the State Board of Social Welfare regarding nursery school personnel.)

50 EARLY CHILDHOOD EDUCATION AND CARE 3 UNITS
Historical and contemporary systems of Early Childhood group care, career opportunities, personal qualifications, legal aspects, survey of practices, differing orientations to early childhood education, developmental stages of young children and considerations regarding appropriate curricula. 3 hours. Transfer: CSU.

51 PRENATAL TO EARLY CHILDHOOD 3 UNITS
Development of the child from prenatal life to early childhood; developmental characteristics, influences affecting development in prenatal life and infancy; individual differences; physical, emotional, intellectual and social development. Emphasis on scientific method, research strategies historical overview, social and cultural context, methods of observing children, and theories. 3 hours. Transfer: CSU.

52 CHILDHOOD AND ADOLESCENCE 3 UNITS
Development of the child from elementary school age through adolescence; physical, intellectual, social and personality factors. Emphasis on the continuity, observation, scientific methods, and stages of development. 3 hours. Transfer: CSU.

55 THE PROFESSIONAL CARE-GIVER 2 UNITS
Analysis of motives, goals, qualifications, competencies and attitudes of the successful professional and relationships with clients includes; individual assessments and strategies for career success. Strongly recommended: Early Childhood Development 50. 2 hours. Transfer: CSU.

60 TEACHING SPECIAL NEEDS INFANTS AND PRESCHOOLERS 3 UNITS
Introduction to early childhood education for the special needs infant and preschooler. Developmental characteristics and abilities found in infants and preschoolers identified as "at risk" or handicapped. Instructional methods, assessments, interventions, learning and mainstreaming environments for the special needs infant and preschooler. Prerequisite: Early Childhood Development 51 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

61 LITERATURE FOR THE YOUNG CHILD 3 UNITS
Selection, evaluation and use of fiction, non-fiction, prose and poetry from existing written and/or recorded children's literature for appropriate class presentation. Includes puppets, flannel boards and props. Role of books in early literacy. 3 hours. Transfer: CSU.

62 CHILD, FAMILY, AND COMMUNITY 3 UNITS
Patterns of family living in modern society, including the varying roles and interaction of family members; factors affecting family life, including urban-suburban living, socio-cultural, racial and economic; relationship of the family to the nursery school and to such community resources as represented by health, welfare, educational, recreational, religious, and counseling organizations. 3 hours. Transfer: CSU.

63 EARLY CHILDHOOD CURRICULUM 4 UNITS
Application of principles of human growth and development to individual problems; appropriate play, aesthetic and learning experiences including program content, use materials and equipment and guidance of children's experiences in developmentally appropriate fashion; techniques of meeting physical needs of children. Prerequisite: Early Childhood Development 50 and 51 (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU.

64 PLAY: MATERIALS AND ENVIRONMENTS 3 UNITS
Application of principles of human growth and development in the consideration of play materials and environments for young children. Development and selection of age-appropriate play materials, and environments which foster play. Prerequisite: Early Childhood Development 51 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

65 ADMINISTRATION 3 UNITS
Principles and practices of program planning, organization, budgeting, personnel, records; relationships with community resources, regulatory agencies and with parents; child nutrition, food purchasing, and requirements of State and Federal programs. Prerequisite: Early Childhood Development 62 and 63 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

67 INFANT AND TODDLER DEVELOPMENT AND CARE GIVING 3 UNITS
Analysis of child development with emphasis on infants and toddlers. Observation of current practices in infant/toddler care giving in group settings in both centers and family day care homes. Assessments and planning of care giving techniques and environments based on principles of human development, health and safety, and legal requirements. Prerequisite: Early Childhood Development 50 and 51 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU; CSU/GE: D7.

68 PROGRAM SUPERVISION 3 UNITS
Group dynamics, supervision of staff and parents, development of motivation and morale, leadership skills, functions of personnel, interviewing, interpersonal and group conflicts, staff evaluations, working with and being effective with parents and parent board members. Designed to provide knowledge of methods and principles of working with adults in a supervisory capacity in a child care setting. Prerequisite: Early Childhood Development 62 and 63 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU.

69 OBSERVING AND RECORDING BEHAVIOR 3 UNITS
Training in observational techniques, analysis, and use of observational data for purpose of understanding children's developmental needs and appropriate curriculum development. Special emphasis on infant-toddler, preschool or special needs children. Prerequisite: Early Childhood Development 51 (*completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU.

77 INTRODUCTION TO SOCIAL SERVICES AND COMMUNITY RESOURCES 2-4 UNITS
Introduction to social services and community resources available to children and families through various human service agencies. Methods of effective volunteer participation in community service; including assessing community needs, role of the volunteer, and relationships with families and public agencies. Field placements. 1 hour lecture, 3-9 hours laboratory. Transfer: CSU.

78 LANGUAGE DEVELOPMENT**3 UNITS**

Principles of language development of young children. Skills involved in communication. Facilitating acquisition and use of communication skills. Prerequisite: Early Childhood Development 51 (*completed with grade of "C" or higher*). 3 hours. Transfer: CSU.

79 ANTI-BIAS CURRICULUM FOR YOUNG CHILDREN**3 UNITS**

Developing approaches which help young children and the adults who care for them to enhance human diversity, recognize social bias, and take action for their own and others' behalf. 3 hours. Transfer: CSU.

80 ADVANCED TOPICS IN CHILDHOOD DEVELOPMENT**1-3 UNITS***(May be repeated 3 times)*

Development and presentation of advanced topics in Early Childhood Development. Emphasis on creative arts, math and science, music and movement. Prerequisite: Early Childhood Development 63 (*completed with a grade of "C" or higher*). 1-3 hours.

83 ADULT SUPERVISION**2 UNITS**

Methods and principles of supervising student teachers in early childhood classrooms. Emphasis on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff. Prerequisite: Early Childhood Development 62 and 63 (*completed with a grade of "C" or higher*). 2 hours. Transfer: CSU.

85 MENTOR SEMINAR A**1/2 UNIT**

Assigned for mentor teachers in the statewide California Early Childhood Mentor Teacher program. Monthly seminars to explore issues related to mentor teacher's new role as supervisors of early childhood student teachers. Content individualized to meet the needs of each Mentor. 9 hours total. Transfer: CSU.

86 MENTOR SEMINAR B**1/2 UNIT**

Seminar is part of the statewide California Early Childhood Mentor Teacher program. Continuing monthly seminars to further explore issues begun in Mentor Seminar A mentor teacher's role as supervisors of early childhood student teachers. Emphasis on their role as early childhood professionals. Content individualized to meet the needs of each Mentor. 9 hours total. Transfer: CSU.

87 QUALITY ENVIRONMENTS FOR INFANTS/TODDLERS**3 UNITS**

Observation and analysis of infant/toddler classrooms using the Infant Toddler Environmental Rating Scale (ITERS). Consideration of developmental needs and profiles for children ages birth to 36 months. Design of interior and exterior learning environments and planning of learning experiences that are developmentally appropriate to the children who will be involved. Study of how responsive and culturally sensitive relationships with children and their parents influence children's development. Strongly recommended: early Childhood Development 67. 40 hours total lecture, 14 hours total Work Experience. Transfer: CSU.

90 SUPERVISED EXPERIENCE**4 UNITS***(May be repeated 1 time)*

Direct experience working with young children. Observation and evaluation of individual children, group activities, roles of adults in the pre-school and the entire school program. Planning instructional activities and discussion of on-site experiences. Developing individual educational plans. Planning and conducting parent conferences. Prerequisite: Early Childhood Development 55 (*completed with a grade of "C" or higher*; may be taken concurrently) and 63 (*completed with a grade of "C" or higher*). 2 hours lecture, 6 hours laboratory. Transfer: CSU.

95 WORK EXPERIENCE**1-3 UNITS***(May be repeated 3 times)*

Application of principles and skills through participation in on-the-job training. Corequisite: Early Childhood Development 96. 5-15 hours experience per week. Transfer: CSU.

96 WORK EXPERIENCE SEMINAR**1 UNIT**

Discussion and analysis of problems encountered on the job. Case studies on the job problems often encountered by employees. Application of quality standards to the job site. Corequisite: Early Childhood Development 95. 1 hour. Transfer: CSU.

◇Refer to page 14 for program requirements.

ECOLOGY

(See Biological Sciences)

ECONOMICS (ECON)**1 PRINCIPLES OF MICROECONOMICS****3 UNITS**

Economic analysis of market systems price theory, including supply and demand analysis, marginal utility, elasticity, cost and revenue concepts, perfect and imperfect competition, international trade, pricing of the factors of production, poverty and income inequalities. Strongly recommended: English 1A eligibility and Mathematics 65 and 65L. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU UC; CSU/GE: D2; IGETC: Area 4; AA/AS; (CAN ECON 4).

2 PRINCIPLES OF MACROECONOMICS**3 UNITS**

Economic analysis of the theory of income determination, including national income analysis, business cycles, the consumption function, the multiplier, fiscal policy, monetary policy, money and banking, the public debt, economic growth and development, comparative economic systems and international trade. Strongly Recommended: English 1A eligibility and Mathematics 65 or an appropriate skill level demonstrated through the Mathematics assessment process. 3 hours. Transfer: CSU, UC; CSU/GE: D2; IGETC: Area 4; AA/AS; (CAN ECON 2).

5 ECONOMIC HISTORY OF THE UNITED STATES**3 UNITS**

Origins and historical development of the major economic forces, institutions, and philosophies that have shaped the U.S. market economy. 3 hours. Transfer: CSU, UC; CSU/GE: D2; IGETC: Area 4; AA/AS.

10 GENERAL ECONOMICS**3 UNITS**

Survey of the economic system of the United States, covering such macroeconomic and microeconomic topics as supply and demand, firms' output and pricing decisions, international trade, comparative economic systems, economic growth, business cycles, fiscal and monetary policy, labor, and money and banking. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D2; IGETC: Area 4; AA/AS.

12 CONSUMER ECONOMICS IN THE UNITED STATES**3 UNITS**

Historical theoretical, and practical description and analysis of problems in the consumer sector of the U.S. economy. Emphasis on practical aspects of consumer behavior within the modern market. 3 hours. Transfer: CSU; CSU/GE: D2; AA/AS.

**ELECTRONICS AND
COMPUTER TECHNOLOGY (ELEC)**

**DEGREE:
AS – ELECTRONICS AND COMPUTER
TECHNOLOGY**

**CERTIFICATE OF ACHIEVEMENT:
ELECTRONICS AND COMPUTER
TECHNOLOGY**

ELECTRONICS AUDIO/VIDEO TECHNOLOGY

**CERTIFICATE OF COMPLETION:
ELECTRONICS ASSEMBLY**

Electronics technology is a two-year program, which may be applied toward a four-year degree in engineering technology. Employment opportunities are available in many areas including research and development, industrial maintenance, field service, aerospace and commercial systems testing. Upon completion of the Electronics Technician Certificate the student is prepared to take the examination for a first class commercial license from the Federal Communications Commission and can be employed as an electronics technician.

**ELECTRONICS AND
COMPUTER TECHNOLOGY
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR	FALL	SPRING
Electronics and Computer Technology 60 (Fundamentals of Electronics)		4
Electronics and Computer Technology 61 (Fabrication Techniques)		4
Electronics and Computer Technology 65* (Circuit Analysis)		4
Electronics and Computer Technology 62A (Semiconductor Devices)		4
Electronics and Computer Technology 63A (Project Development I)		2
Electronics and Computer Technology 64A (Digital Electronics)		4

SOPHOMORE YEAR	FALL	SPRING
Electronics and Computer Technology 62B (Circuits and Systems I)		4
Electronics and Computer Technology 63B (Project Development II)		2
Electronics and Computer Technology 64B (Microprocessor Technology)		4
Electronics and Computer Technology 62C (Circuits and Systems II)		4
Electronics and Computer Technology 64C (Computer Systems)		4
Electronics and Computer Technology 69 (Programming for Electronic and Computer Technicians)		4
Total		44

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required **60**

**Other equivalent courses may be substituted.*

**ELECTRONICS AND
COMPUTER TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR	FALL	SPRING
Electronics and Computer Technology 60 (Fundamentals of Electronics)		4
Electronics and Computer Technology 61 (Fabrication Techniques)		4
Electronics and Computer Technology 65* (Circuit Analysis)		4
Electronics and Computer Technology 62A (Semiconductor Devices)		4
Electronics and Computer Technology 63A (Project Development I)		2
Electronics and Computer Technology 64A (Digital Electronics)		4

SOPHOMORE YEAR	FALL	SPRING
Electronics and Computer Technology 62B (Circuits and Systems I)		4
Electronics and Computer Technology 63B (Project Development II)		2
Electronics and Computer Technology 64B (Microprocessor Technology)		4
Electronics and Computer Technology 62C (Circuits and Systems II)		4
Electronics and Computer Technology 64C (Computer Systems)		4
Electronics and Computer Technology 69 (Programming for Electronic and Computer Technicians)		4
Total		44

**Other equivalent courses may be substituted.*

**ELECTRONICS AUDIO/VIDEO
TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR	FALL	SPRING
Electronics and Computer Technology 60 (Fundamentals of Electronics)		4
Electronics and Computer Technology 61 (Fabrication Techniques)		4
Electronics and Computer Technology 65* (Circuit Analysis)		4
Electronics and Computer Technology 62A (Semiconductor Devices)		4
Electronics and Computer Technology 64A (Digital Electronics)		4

SOPHOMORE YEAR	FALL	SPRING	
Electronics and Computer Technology 62B (Circuits and Systems I)			4
Electronics and Computer Technology 64B (Microprocessor Technology)			4
Electronics and Computer Technology 81 (Audio Systems)			4
Electronics and Computer Technology 62C (Circuits and Systems II)			4
Electronics and Computer Technology 82 (Video Systems)			4
Total			40

*Other equivalent courses may be substituted.

ELECTRONICS ASSEMBLY CERTIFICATE OF COMPLETION

CORE COURSES	FALL	SPRING	
Electronics and Computer Technology 61 (Fabrication Techniques)			4
Electronics and Computer Technology 70 (Introduction to Electronics)			2½
English 52A (Essentials of Communication)			3
Mathematics 65 (Elementary Algebra)			5
Electives			3
Total			17½

ELECTRONICS AND COMPUTER TECHNOLOGY (ELEC)

60 FUNDAMENTALS OF ELECTRONICS **4 UNITS**
Direct current and alternating current circuits including Ohm's Law, Kirchhoff's Laws, and Network theorems. Includes resistance, capacitance, and inductance and semi-conductor devices. Laboratory practice includes the proper use of standard test instruments. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

61 FABRICATION TECHNIQUES **4 UNITS**
(May be repeated 3 times)
Prototype development; includes sheet metal, printed circuit board layout and fabrication, connection and soldering techniques, use of hand tools, and machines in electronic fabrication. Use of computer software tools as applied to electronic fabrication. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

62A SEMICONDUCTOR DEVICES **4 UNITS**
Semiconductor physics—diode and transistor fundamentals, junction devices in large and small signal applications. Transistor biasing and configuration with AC and DC load lines. Fundamentals of Amplification. Power supply regulation and filtering. Prerequisite: Electronics and Computer Technology 60. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

62B CIRCUITS AND SYSTEMS I **4 UNITS**
Analysis and troubleshooting of linear and non-linear analog circuits and systems. Modeling of bipolar and FET devices. Classes of Amplification. JFETS, MOSFETS, Thyristors and their application. Analysis of frequency effects, power. Voltage and current gain; impedance matching. Application of software simulation tools. Laboratory construction of actual circuits and systems with an emphasis on troubleshooting methods. Prerequisite: Electronics and Computer Technology 62A. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

62C CIRCUITS AND SYSTEMS 1 **4 UNITS**
Op-amps in all standard configurations. Linear and Non-linear analog circuits. Oscillators and waveform generation. Application of software simulation and modeling tools. Laboratory construction of actual circuits and systems with an emphasis on troubleshooting methods. Use of electronic test equipment. Prerequisite: Electronics and Computer Technology 62B. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

63A PROJECT DEVELOPMENT I **2 UNITS**
(May be repeated 3 times)
Design and development of individual and/or group electronic projects. Selection of typical design problems that approximate a prototype development situation. Prerequisite: Electronics and Computer Technology 61. Strongly recommended: Electronics and Computer Technology 62A. 1 hour lecture, 3 hours laboratory.

63B PROJECT DEVELOPMENT II **2 UNITS**
(May be repeated 3 times)
Advanced design and development of individual and/or group electronic projects. Selection of a challenging design problem will be made that will require prototype development, parts procurement, printed circuit board and chassis layout and construction to a completed project. Prerequisite: Electronics and Computer Technology 63A. 1 hour lecture, 3 hours laboratory.

64A DIGITAL ELECTRONICS **4 UNITS**
Digital building blocks, number systems, boolean algebra, combinational and sequential logic, integrated logic families, digital circuit design, troubleshooting technique. Prerequisite: Electronics and Computer Technology 60. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

64B MICROPROCESSOR TECHNOLOGY **4 UNITS**
Architecture, programming, and application of microprocessor-based electronic systems. Includes instruction types, external and internal timing and control functions, memory management, interrupt processing, LSI peripheral devices; troubleshooting of microprocessor-based systems. Prerequisite: Electronics and Computer Technology 64A. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

64C COMPUTER SYSTEMS **4 UNITS**
Computer systems architecture; interfacing between the processor and peripheral devices, embedded systems, networking technology fundamentals. Troubleshooting techniques for computer systems. Prerequisite: Electronics and Computer Technology 64B. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

65 CIRCUIT ANALYSIS **4 UNITS**
Mathematic skills required in the analysis of both DC and AC circuits. Includes basic math, algebraic manipulation of formulas, scientific notation, units, and prefixes as applied to electric circuits, graphing, trigonometric functions, phasor algebra, logarithms used in time constants, decibel and other calculations. May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU, AA/AS.

67 ELECTRONIC EQUIPMENT TROUBLESHOOTING 1 UNIT*(May be repeated 3 times)*

Electronic equipment troubleshooting methods, procedures, and applications. Servicing and maintenance of all types of electronic devices and equipment. Emphasis on the four main step approach to modern troubleshooting; analyze, localize, isolate, and determine specific location. Prerequisite: Electronics and Computer Technology 62A and 64A. 1 hour

68 ELECTRONIC TEST EQUIPMENT 1 UNIT*(May be repeated 3 times)*

Applications of electronic test equipment. Emphasis on oscilloscope and the logic analyzer. Discussion of other types of instruments available and their performance trade-offs. Troubleshooting applications and limitations of electronic test instruments. Prerequisite: Electronics and Computer Technology 62A and 64A. 1 hour. Transfer: CSU.

69 PROGRAMMING FOR ELECTRONIC AND COMPUTER TECHNICIANS 4 UNITS*(May be repeated 3 times)*

Introduction to programming in assembly language and/or compiler languages. Emphasis is on hardware and software interfacing and diagnostic techniques. Includes software as a diagnostic tool in the troubleshooting of computer systems. Introduction to operating system interfacing. 3 hours lecture, 3 hours laboratory. Transfer: CSU.

70 INTRODUCTION TO ELECTRONICS 2½ UNITS*(May be repeated 3 times)*

A survey course in electronic technology. Ohm's law and fundamental DC and AC circuit analysis. Magnetism and capacitance. Overview of semiconductor technology with applications. Digital building blocks with application to computer technology. Survey of the electronic technology fields. Use of basic electronic test equipment. Designed for non-Electronics majors. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

71 INDUSTRIAL CONTROLS 3 UNITS*(May be repeated 3 times)*

Application of mechanical, electrical, and electronic control systems used in industry. Includes power sources, digital techniques, processor controllers, and input transducers. Prerequisite: Electronics and Computer Technology 70*. 2 hours lecture, 3 hours laboratory.

76 INTRODUCTION TO COMPUTER NETWORKING 2½ UNITS

Basics of local area networks Local Area Network (LAN). LAN usage. Introduction to major networking components: hardware, software, networking topologies. LAN cabling. Benefits of LANs. Introduction to data communications. History of Networking. Review of LAN administration, setup and installation. The laboratory portion of the course presents numerous exercises for gaining familiarity with a LAN. Strongly recommended: Electronics and Computer Technology 73*. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

77 COMPUTER NETWORK ADMINISTRATION 2½ UNITS

Computer Network Administration using Netware 3.X and Netware 4.X. Introduction to Netware Directory Services and directory services security. Netware File System and file system security. Customizing the user environment. Network configuration and management of servers. Network printing administration. Network fault tolerance and backup solutions. Using Networking utilities. Hardware and software troubleshooting in the networking environment. Use of electronic test equipment. Prerequisite: Electronics and Computer Technology 76*. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

78 COMPUTER NETWORK TECHNOLOGY AND TROUBLESHOOTING 2½ UNITS

Computer network technologies and troubleshooting. Service and support of computer networks. Network interface board configuration and network cabling. Disk expansion. The Open Systems interface model. Troubleshooting Netware Directory Services. LANalyzer usage. Troubleshooting and workstation from both a hardware and software point of view. Use of hardware and software tools for tolerance and backup solution practices. Numerous laboratory exercises. Use of electronic test equipment. Prerequisite: Electronics and Computer Technology 76*. 2 hours lecture, 2 hours laboratory. Transfer: CSU.

81 AUDIO SYSTEMS 4 UNITS*(May be repeated 3 times)*

Audio electronics systems; broadcasting of audio, including stereo; design of receivers for broadcast audio; and storage media for audio, including tape recording, vinyl records, and compact discs. Prerequisite: Electronics and Computer Technology 62A. 3 hours lecture, 3 hours laboratory.

82 VIDEO SYSTEMS 4 UNITS*(May be repeated 3 times)*

Video electronics; broadcasting of video, including color; design of receivers for broadcast video (television); different standards worldwide (NTSC, PAL, SECAM); use of video for computer displays; new type displays (LCD, etc); and storage media for video, including the various videotape formats and laser disc. Prerequisite: Electronics and Computer Technology 81. 3 hours lecture, 3 hours laboratory.

84 SATELLITE AND CABLE SYSTEM 2 UNITS*(May be repeated 3 times)*

Fundamentals of satellite and cable television systems (CATV). Includes electronic and mechanical aspects of satellite communication systems and of cable television (CATV) systems; theory, operation, testing, and the alignment of these systems. Prerequisite: Electronics and Computer Technology 82 and Electronics and Computer Technology 64C*. 1 hour lecture, 3 hours laboratory.

90 INTRODUCTION TO THE INTERNET 1 UNIT

Introduction to the internet and the World Wide Web. Using a web browser to traverse the Internet. Using search programs to locate information. Retrieving files with File Transfer Protocol (FTP). Using Telnet to access remote computer networks. Sending and receiving e-mail. Subscribing to Usenet groups. Locating an internet service provider. 1 hour lecture, 1 hour laboratory. Transfer: CSU.

91 INTRODUCTION TO HYPERTEXT MARKUP LANGUAGE (HTML) 2 UNITS*(See also Computer Applications Systems 91 and Computer Science 91)*

Design and development concepts and use of the standard HTML "tags" to develop web pages for use on the current standard World Wide Web latest version browsers (i.e., Netscape Communicator and Microsoft Explorer). Coverage includes the differences between various tags that work only on Communicator and only on Explorer, use of various web editing tools such as an HTML editor, graphics image editor, special effects applications, design considerations for "intelligent" and "attractive" web page layout including horizontal and vertical spacing commands, introduction to the use of multimedia (audio and movie clip) capability in HTML, hypertext link presentation using both text and graphical presentation, introduction to dynamic HTML tags such as Cascading Style Sheets, frames, tables, image maps, meta tags. Strongly recommended: Electronics and Computer Technology 90* (*completed with a grade of "C" or higher*). (May not receive credit if Computer Application Systems 91 or Computer Science 91 has been completed.) (May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU; AA/AS.

* Or equivalent

ENGINEERING (ENGR)

DEGREE:**AS – ENGINEERING****(PENDING STATE APPROVAL)**

The purpose of this program is to provide an intermediate degree in Engineering. This Associate in Science Degree in Engineering may be supplemented by additional mathematics, science, engineering, and general education courses required for specific engineering majors to form the basis for transfer to a Baccalaureate Engineering program.

ENGINEERING ASSOCIATE IN SCIENCE DEGREE

(PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Engineering 10 (Introduction to Engineering)	2	
Engineering 20 (Engineering Graphics)	2	
Engineering 21 (Descriptive Geometry)		3
Chemistry 1A (General College Chemistry)		5
Mathematics 1 (Calculus I)		5
Physics 4A (General Physics I)		5

SOPHOMORE YEAR	FALL	SPRING
Engineering 35 (Statics)	3	
Engineering 44 (Introduction to Circuit Analysis)	4	
Engineering 45 (Materials of Engineering)	3	
Mathematics 2 (Calculus II)	5	
Physics 4B (General Physics II)	5	
<i>Plus One (1) Course from the following:</i>		
Computer Science 8 (Computer Literacy)		3
Computer Science 14 (Introduction to Structured Programming in C++)		4
Engineering 31 (Plane Surveying)		3
Total		45-46

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

UNIVERSITY TRANSFER PROGRAM – NOT AN AA DEGREE PROGRAM

This program is based on recommendations of the California Engineering Liaison Committee. It prepares the student for junior standing upon transfer to universities in California in any major branch of engineering. This program assumes high school preparation including: trigonometry, pre-calculus mathematics, physics, chemistry, mechanical drafting and English. Some variation in specific or additional requirements may exist at specific universities for specific engineering majors (i.e., civil, electrical, chemical, etc.). Therefore, it is essential that the student also refer to catalogs of the prospective universities and consult a counselor and the engineering faculty. It is recommended that the courses be taken in the sequence indicated below to minimize scheduling conflicts.

This is a university transfer program and not an Associate in Arts program.

FRESHMAN YEAR	FALL	SPRING
Chemistry 1A* (General College Chemistry)	5	
Engineering 20 (Engineering Graphics)	2	(2)
Engineering 10 (Introduction to Engineering)	2	
Mathematics 1 (Calculus I)	5	
Engineering 31** (Plane Surveying)		3
Engineering 21 (Descriptive Geometry)		3
Mathematics 2 (Calculus II)		5
Physics 4A (General Physics I)		5

SOPHOMORE YEAR	FALL	SPRING
English 1A (Critical Reading and Composition)	3	
Engineering 35 (Statics)	3	
Mathematics 3 (Multivariable Calculus)	5	
Physics 4B (General Physics II)	5	
Engineering 21 (Descriptive Geometry)		(3)
Engineering 44 (Introduction to Circuit Analysis)	(4)	4
Engineering 45 (Materials of Engineering)		3
Mathematics 4 (Elementary Differential Equations)		3
Physics 4C*** (General Physics III)		5
Speech 1 (Fundamentals of Speech Communication)		3
Total		64

*Chemical Engineering and Materials Engineering majors should take Chemistry 1B.

** Required only for Civil Engineering and Architectural Engineering majors.

*** Physics 4C may not be required by some universities for some engineering majors.

() Alternate offering of indicated Engineering course.

Note: Transfer application for admission to the fall semester must be submitted in the month of November of the preceding year. Check with specific universities for other application schedules and/or requirements.

ENGINEERING (ENGR)

Students interested in majoring in engineering should discuss their course planning with a member of the Engineering faculty to ensure they are following the guidelines for transferring to a four year college. This will ensure no loss of transfer credit and that courses are taken in the most economical transfer sequence.

10 INTRODUCTION TO ENGINEERING **2 UNITS**
Introduction to careers, activities, and topics related to the field of engineering, including computer applications design and problem solving. Strongly recommended: eligibility for English 1A. 2 hours. Transfer: CSU, UC.

20 ENGINEERING GRAPHICS **2 UNITS**
Principles of graphics in engineering including lettering, geometric construction, orthographic projection, pictorial drawing, dimensioning, tolerances, section views, auxiliary views, and sketching. Strongly recommended: Mathematics 36 or Mathematics 37 (may be taken concurrently), and English 1A or 52A. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC.

21 DESCRIPTIVE GEOMETRY **3 UNITS**
Graphical solutions to three dimensional problems with application to various engineering disciplines. Prerequisite: Engineering 20 (*completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

31 PLANE SURVEYING 3 UNITS
 Use of surveying instruments: tape EDM, level, transit, theodolite measurement and errors. Computations for traverse, horizontal and vertical curves, earthwork. Topographic surveys, boundary surveys. Prerequisite: Engineering 20, Mathematics 36 or Mathematics 37 (*both completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 10).

35 STATICS 3 UNITS
 Force systems under equilibrium conditions; rigid body structures; vector; graphical and algebraic solutions of problems, principles of virtual work. Prerequisite: Physics 4A, Mathematics 2 and Engineering 21 (*all completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 8).

44 INTRODUCTION TO CIRCUIT ANALYSIS 4 UNITS
 Analysis of introductory engineering AC and DC circuits. Natural, forced, and complete circuit response. Prerequisite: Physics 4A (*Completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 6), (CAN ENGR 12).

45 MATERIALS OF ENGINEERING 3 UNITS
 Application of principles of chemistry and physics to the properties of engineering materials, the relation of microstructure to mechanical, electrical, thermal and corrosion properties of metals, ceramics and polymers. Prerequisite: Physics 4A (may be taken concurrently), Chemistry 1A, and Engineering 21 (*all completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU, UC; (CAN ENGR 4).

ENGINEERING TECHNOLOGY (ENGT)

DEGREE:
AS – ENGINEERING TECHNOLOGY – ELECTRONICS
AS – ENGINEERING TECHNOLOGY – MANUFACTURING

The Engineering Technology program offers an Associate of Science degree and prepares students to transfer to four-year college and university programs. The program is for students interested in learning the more pragmatic and applications aspect of engineering, and is directed to the application of established scientific and engineering knowledge and methods. Including the core, a minimum of 30 units must be completed from required mathematics, science, and core option courses to earn an Associate in Science degree.

ENGINEERING TECHNOLOGY– ELECTRONICS
 ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Electronics and Computer Technology 60 (Fundamentals of Electronics)		4
Electronics and Computer Technology 61 (Fabrication Techniques)		4
Mathematics 36* (Trigonometry)		3
Electronics and Computer Technology 62A (Semiconductor Devices)		4
Electronics and Computer Technology 64A (Digital Electronics)		4

SOPHOMORE YEAR	FALL	SPRING
Electronics and Computer Technology 62B (Circuits and Systems I)		4
Electronics and Computer Technology 64B (Microprocessor Technology)		4
Physics 2A (Introduction to Physics I)		4
Electronics and Computer Technology 62C (Circuits and Systems II)		4
Electronics and Computer Technology 64C (Computer Systems)		4
Electronics and Computer Technology 69 (Programming for Electronics Technicians)		4
Physics 2B (Introduction to Physics II)		4
Total		47

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

**Other equivalent courses may be substituted*

ENGINEERING TECHNOLOGY– MANUFACTURING
 ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Engineering 20 (Engineering Graphics)		2
Machine Tool Technology 70 (Introduction to Machine Shop)		2
Machine Tool Technology 60A (Machine Tool Technology I)		4
Machine Tool Technology 71A (Numerical Control Programming 1)		4
Engineering 21 (Descriptive Geometry)		3
Machine Tool Technology 60B (Machine Tool Technology II)		4
Machine Tool Technology 71 B (Numerical Control Programming II)		4
Mathematics 36 (Trigonometry)		3

SOPHOMORE YEAR	FALL	SPRING
Engineering Technology 52 (Engineering Systems Analysis)		3
Machine Tool Technology 65 (Production Practices)		4
Physics 2A (Introduction to Physics I)		4
Machine Tool Technology 66 (Basic Toolmaking)		4
Physics 2B (Introduction to Physics II)		4
Total		45

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

ENGINEERING TECHNOLOGY (ENGT)

52 ENGINEERING SYSTEM ANALYSIS **3 UNITS**
 Analysis of elementary civil, electrical, electronic, and mechanical engineering systems. Strongly recommended: Mathematics 36 or Mathematics 37. 2 hours lecture, 3 hours laboratory. Transfer: CSU.

57 ELECTRICAL SYSTEMS **2 UNITS**
 Introduction to electrical systems, components for electrical systems and circuits; basic electrical theorem, magnetism, electrostatics. Strongly recommended: Industrial Technology 74 (may be taken concurrently). 1 hour lecture, 3 hours laboratory.

60 ENGINEERING MATERIALS TECHNOLOGY **2 UNITS**
 Introduction to physical and mechanical characteristics of material used in engineering applications. Includes metals, ceramics and polymers; basics of metallurgy, tension testing, hardness testing and heat treatment. Strongly recommended: Industrial Technology 74 and Mathematics 36 or Mathematics 37. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

66 GRAPHICAL KINEMATICS **2 UNITS**
 Elementary mechanisms; emphasis on fundamentals of displacement, velocity and acceleration, and on the application of these to the analysis and design of mechanisms such as linkages, sliders, cams, cranks, gears and gear-trains. Strongly recommended: Engineering 20 or Design Technology 66A. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

ENGLISH (ENGL)

DEGREE:
AA— ENGLISH (EMPHASIS IN LITERATURE)
 (PENDING STATE APPROVAL)

CERTIFICATE:
**CREATIVE WRITING
 WRITING**

The English Associate in Arts degree will allow students to fulfill the first two years of coursework towards a bachelors degree in English while also fulfilling general education requirements. In addition this degree is useful preparation for other liberal arts degrees and will offer students an enriched background towards professional preparation in fields from education to law. All of the courses for the degree transfer to universities and colleges.

ENGLISH (EMPHASIS IN LITERATURE)

ASSOCIATE IN ARTS DEGREE
 PENDING STATE APPROVAL

FRESHMAN YEAR	FALL	SPRING
English 1A (Critical Reading and Composition)	3	
English 45 (Studies in Fiction)		3
English 4 (Critical Thinking and Writing About Literature)	3	
English 20 (Studies in Shakespeare)		3

SOPHOMORE YEAR	FALL	SPRING
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Choose one from the following:

English 22 (Mexican American/Latino Literature of the U.S.)	3	
English 30 (Survey of U.S. Literature)	3	
English 21 (The Evolution of the Black Writer)	3	
English 32 (U.S. Women's Literature)	3	

Choose one from the following:

English 7 (Critical Thinking and Writing Across Disciplines)	3	
English 12 (The Craft of Writing - Fiction)	3	
English 47 (The Bible as Literature)	3	
Speech 2A (Oral Interpretation of Literature I)	3	
English 13 (The Craft of Writing - Poetry)	3	
English 33 (Herstory: Women's Autobiographical Writing in Multicultural America)	3	
English 38 (Survey of Modern British Literature)	3	
English 48 (The Literature of the Holocaust)	3	
Total		18

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

CREATIVE WRITING CERTIFICATE

CORE COURSES	FALL	SPRING
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Select two courses from the following for a total of 6 units:

English 11 (Introduction to Creative Writing)*	3	
English 12 (The Craft of Writing-Fiction)*	3	
English 13 (The Craft of Writing-Poetry)*	3	

Select from the following for additional 9 units:

English 4 (Critical Thinking and Writing about Literature)*	3	
English 11 (Introduction to Creative Writing)*	3	
English 12 (The Craft of Writing-Fiction)*	3	
English 13 (The Craft of Writing-Poetry)*	3	
English 19 (Literary Magazine Workshop)***	1	
English 21 (The Evolution of the Black Writer)***	3	
English 22 (Mexican American/Latino Literature of the U.S.)*	3	
English 32 (U.S. Women's Literature)***	3	
English 33 (Women's Autobiographical Writing in Multicultural America)**	3	
Theater Arts 16 (Introduction to Playwriting for Film, Television and Theater)*	3	
Mass Communications 3 (Journalism: Magazine and Newspaper Feature Writing)***	3	
Total		15

*offered fall & spring semester
 **offered in fall only
 ***offered in spring only

**WRITING
CERTIFICATE**

CORE COURSES **FALL** **SPRING**

- English 1A (Critical Reading and Composition)* 3
- English 4 (Critical Thinking and Writing
About Literature) or
English 7 (Critical Thinking and
Writing Across Disciplines)* 3

SELECT FROM THE FOLLOWING FOR ADDITIONAL 9 UNITS

Select one course from:

- English 70 (Report Writing)* 3
- English 4 (Critical Thinking and Writing
About Literature) or
English 7 (Critical Thinking and
Writing Across Disciplines)* 3
- Theater Arts 16 (Introduction to Playwriting
for Film, Television and Theater)** 3

Select one course from:

- Mass Communications 35
(Writing for Broadcasting)** 3
- Mass Communications 1 (Journalism: Newswriting
and Information Gathering)*** 3
- Mass Communications 2 (Journalism: Investigative
News Writing) ** 3
- Business 15 (Business Correspondence)** 3

Select one course from:

- English 11 (Introduction to Creative Writing)* 3
- English 12 (The Craft of Writing-Fiction)* 3
- English 13 (The Craft of Writing-Poetry)* 3

Total **15**

*offered fall & spring semester
**offered in spring only
***offered in fall only

COMPOSITION & LITERATURE

1A CRITICAL READING AND COMPOSITION **3 UNITS**

Integrated approach to reading, writing, and critical thinking intended to develop ability to read and write complex, college-level prose. Examination of ideas in relation to individuals' world view and contexts from which these ideas arise. Some research required. Prerequisite: English 101 B, 102, or appropriate skill level demonstrated through English assessment process. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: A2, IGETC: Area 1 group A; AA/AS; (CAN ENGL 2).

4 CRITICAL THINKING AND WRITING ABOUT LITERATURE **3 UNITS**

Develops critical thinking, reading, and writing skills as they apply to the analysis of fiction, poetry and drama; literary criticism; and related non-fiction from diverse cultural sources and perspectives. Emphasis on the techniques and principles of effective written argument as they apply to literature. Some research required. Prerequisite: English 1A with a grade of "C" or higher. 3 hours. Transfer: CSU, UC; CSU/GE: A3; IGETC: Area 1B group B; AA/AS.

7 CRITICAL THINKING AND WRITING ACROSS DISCIPLINES **3 UNITS**

Develops critical thinking, reading, and writing skills as they apply to the textual analysis of primary and secondary book-length works from a range of academic and cultural contexts. Emphasis on the techniques and principles of effective written argument in research-based writing across disciplines. Prerequisite: English 1A with a grade of "C" or higher 3 hours. Transfer: CSU, UC; CSU/GE: A3; IGETC: Area 1 group B; AA/AS.

10 UNDERGRADUATE TEACHING ASSISTANT IN ENGLISH **1-2 UNITS**

Provides the opportunity for students interested in a teaching career to assist an instructor in one target course. Practice in presenting lessons, responding to students' written work, creating assignments, and facilitating group discussions. Recommendation of target course instructor required. Prerequisite: English 1A (completed with a grade of "C" or higher). 2-4 hours. Transfer: CSU.

11 INTRODUCTION TO CREATIVE WRITING **3 UNITS**

(May be repeated 3 times)
Elements of creative writing, including narrative, verse and dialogue, using materials drawn from individual's own work and selected texts. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU.

12 THE CRAFT OF WRITING—FICTION **3 UNITS**

(May be repeated 3 times)
Practice in writing fiction. Developing internal and external sources for stories and novels; biographical sources, characterization, plotting, points of view, narrative techniques; analysis and criticism of published writing and individual's own work. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; CSU/GE: C2; AA/AS.

13 THE CRAFT OF WRITING—POETRY **3 UNITS**

(May be repeated 3 times)
Practice in writing poetry, using materials drawn from published poetry and individual's own work for analysis and criticism, with a focus on techniques of revision. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; CSU/GE: C2; AA/AS.

15 TUTORING IN LANGUAGE ARTS **1-2 UNITS**

(May be repeated 3 times)
Focus on acquiring specific skills and techniques for tutoring in Language Arts courses. Strongly recommended: completion of English 1A or 52A and completion of Tutoring 15* experience. 1 hour lecture, 2-5 hours tutoring. Transfer: CSU.

16 APPLIED LINGUISTICS **3 UNITS**

Introduction to the structure of the English language and its application to academic and professional writing. Focus on logical construction of the sentence and levels of diction. Introduction to the cultural, psychological and literary functions of language. Strongly recommended: eligibility for English 1A. 3 hours. Transfer: CSU; AA/AS.

19 LITERARY MAGAZINE WORKSHOP **1 UNIT**

(May be repeated 3 times)
Practical workshop training in the managing, editing, and printing of a literary supplement and/or magazine. Workshop enrollment constitutes the staff of the magazine. 1 hour.

20 STUDIES IN SHAKESPEARE **3 UNITS**

Readings of the sonnets and representative comedies, histories, tragedies, and romances of William Shakespeare, with attention to the early, middle and late phases of his art and to the Age of Elizabeth. Strongly recommended: English 4 (completed with a grade of "C" or higher). 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

- 21 THE EVOLUTION OF THE BLACK WRITER** **3 UNITS**
Introduction to Black writers in fiction, poetry, drama and the essay, beginning with the "Slave Narratives" and continuing to the present. Emphasis on the 20th century writers' growth and development in relation to their historical and cultural context. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2, D3; IGETC: Area 3; AA/AS.
- 22 MEXICAN AMERICAN/LATINO LITERATURE OF THE U.S.** **3 UNITS**
Introduction to literary works in fiction, poetry, drama and the essay which are concerned with the Mexican-American/Latino cultural experience. Analysis of literature in the context of the historical growth of Mexican American/Latino identity in the United States in the 19th and 20th centuries. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2, D3; IGETC: Area 3; AA/AS.
- 30 SURVEY OF U.S. LITERATURE** **3 UNITS**
Survey of U.S. Literature from 1600 to 1950, including poetry, drama, prose fiction, and essays. Explores each work in relation to its social, cultural and historical contexts, and emphasizes the analysis of defining moments of the times as they are reflected in literature. Includes some research. Strongly recommended: English 4 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3.
- 32 U. S. WOMEN'S LITERATURE** **3 UNITS**
Chronicles the expression of U. S. women authors through readings in a variety of genres such as fiction, poetry, drama, and the essay. Explores works by authors of varied racial and ethnic backgrounds in an effort to understand the diversity of women's voices, especially in the 20th century. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.
- 33 HISTORY: WOMEN'S AUTOBIOGRAPHICAL WRITING IN MULTICULTURAL AMERICA** **3 UNITS**
Chronicles the experience of U.S. women through readings in diaries, journals, and other autobiographical writing from at least three of the following groups: African Americans, Asian Americans, European Americans, Native Americans, and Latinas. Explores work by writers of diverse backgrounds and experiences in an effort to understand the diversity of women's voices, especially in the 20th century. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: D4; AA/AS.
- 38 SURVEY OF MODERN BRITISH LITERATURE** **3 UNITS**
Survey of British poetry, drama and prose fiction studied in the context of the important historical and cultural events of the last two centuries, including but not limited to the rise of science, the impact of industrialism and colonialism, the consequences of the two world wars and the collapse of the British Empire. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.
- 45 STUDIES IN FICTION** **3 UNITS**
Form, development, and cultural insights of the novel and short story; exploration of particular themes or periods as reflected in works of fiction. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.
- 47 THE BIBLE AS LITERATURE** **3 UNITS**
Literature of the Old and New Testaments, their styles, genres, background, authors, events, and language. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

- 48 THE LITERATURE OF THE HOLOCAUST** **3 UNITS**
Explores the literatures of the Holocaust through readings in a variety of genres including the memoir, the diary, the essay, as well as fiction and poetry. Historically and culturally contextualizes the literature and examines the implications of writing which attempts to represent the Nazi genocide against the Jews. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.

- 52A ESSENTIALS OF COMMUNICATION** **3 UNITS**
Development of reading and writing skills with a focus on academic as well as career oriented materials. Strongly recommended: English 101B or 102 or appropriate skill level demonstrated through the English assessment process. 3 hours. Transfer: CSU; AA/AS.

- 52B RESPONDING TO LITERATURE** **3 UNITS**
Introduction to literature from the works of important authors in prose fiction, drama and poetry; examination of the universal human issues brought to life through literature. Emphasis on works that celebrate human experience and cultural diversity. Focus on writing in response to reading. Prerequisite: English 52A or 1A (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU; AA/AS.

- 70 REPORT WRITING** **3 UNITS**
Preparation of reports in industrial and technical fields, including explanations, instructions and other kinds of writings, based on the demands of the occupations. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; AA/AS.

PREPARATORY READING AND WRITING

- 101A READING, REASONING, AND WRITING I** **4 UNITS**
Preparation in English for success in college. Integrates reading, critical thinking, and writing assignments, using materials that present a variety of perspectives from across the curriculum. Strongly recommended: Appropriate skill level demonstrated through the English placement process. 3 hours lecture, 2 hours individualized instruction.

- 101B READING, REASONING AND WRITING II** **4 UNITS**
Continues preparation in English for success in college. Integrates reading, critical thinking, and writing assignments, using materials that present a variety of perspectives from across the curriculum. Prerequisite: English 101A. 3 hours lecture, 2 hours individualized instruction.

- 102 READING, REASONING, AND WRITING—ACCELERATED COURSE** **4 UNITS**
Emphasis in the development of thinking, reading, organizing, and writing skills, particularly those required for successful execution of college-level papers in all subject areas. Designed for those requiring minimal preparation for entering English 1A. Strongly recommended: Appropriate skill level demonstrated through the English placement process. 3 hours lecture, 2 hours individualized instruction.

- 103 SPEED READING** **2 UNITS**
Adaptation of various reading speeds to purpose and material with emphasis on retention and comprehension of information. Practice in the appropriate skills for each type of reading. Designed for the highly motivated reader who has mastered the basics and is now ready for the refinement of reading techniques. Strongly recommended: Appropriate skill levels demonstrated through the English placement process. 2 hours.

- 105 BASIC STUDY—READING SKILLS** **2 UNITS**
Preparation for success in college study and reading skills, emphasizing extensive practice in the discipline of reading college-level materials. 2 hours.

106 SPELLING AND PRONUNCIATION **2 UNITS**
Spelling and pronunciation of commonly used words in standard English. Based on an understanding of the English spelling-sound system with emphasis on dictionary use and memory skills to fit individual learning styles. 2 hours.

107 INTRODUCTION TO ENGLISH GRAMMAR **3 UNITS**
Basic components and rules of English grammar, syntax, and punctuation. Includes parts of speech, sentence patterns, sentence purpose, sentence construction, and sentence level errors in conjunction with writing. 3 hours.

115 ENGLISH SKILLS—FACULTY—STUDENT TUTORIAL **1/2 - 4 UNITS**
(*English 115 and General Studies 115 may be repeated for a combined total of 3 times May enroll through tenth week of instruction*)

Preparation in English for success in college or career. Self-paced, individualized instruction in reading comprehension and writing effectiveness. 2-8 hours.

LEARNING SKILLS

116 LEARNING SKILLS—DIAGNOSTIC CLINIC AND STUDY SKILLS **1 UNIT**
Determination of eligibility for learning disabilities services through diagnostic testing. Includes state mandated tests. Focus on compensatory methods as derived from test results. 1 hour lecture, 1 hour laboratory.

117 LEARNING SKILLS—READING **4 UNITS**
(*May be repeated 1 time*)
Reading to develop decoding, vocabulary and comprehension skills. Use of specialized techniques developed especially for students with learning disabilities. Includes reading comprehension strategies and vocabulary development, and other compensatory strategies. Designed for students with learning disabilities. Recommendation of instructor advisable. Strongly recommended: English 116. 4 hours.

118A LEARNING SKILLS: READING/WRITING **3 UNITS**
(*May be repeated 1 time*)
Strategies to develop college writing skills with an emphasis on developing reading comprehension strategies, summarizing and writing responses to readings. Includes compensatory strategies. Designed for students with learning disabilities to improve reading and writing skills. Strongly recommended: English 116. 3 hours.

118B LEARNING SKILLS: READING/WRITING **3 UNITS**
(*May be repeated 1 time*)
Elements of the writing process including presenting, organizing, writing and revising, and review of basic grammar. Includes reading comprehension strategies and review of compensatory strategies. Designed for students with learning disabilities to improve reading and writing skills. Strongly recommended: English 11 8A. 3 hours.

119 LEARNING SKILLS—PROBLEM SOLVING **3 UNITS**
(*May be repeated 1 time*)
Preparation for problem solving success in college for those with learning disabilities. Emphasis on quantitative reasoning abilities needed to process and integrate word problems and related problem solving tasks. Designed for students with identified learning disabilities. Strongly recommended: English 116. 3 hours.

120 LEARNING SKILLS—STUDY STRATEGIES **2 UNITS**
(*May be repeated 3 times*)
Guided practice in specific compensatory and study strategies for those with learning disabilities. Designed for Learning Skills students actively enrolled in an academic course. Focus on utilizing skills and strategies in conjunction with academic course materials. Designed for students with identified learning disabilities. Strongly recommended: English 116. 2 hours lecture.

121 LEARNING SKILLS: QUANTITATIVE STRATEGIES THROUGH LANGUAGE SKILLS **2 UNITS**
Guided practice in specific compensatory and study strategies for students with learning disabilities in language based quantitative reasoning skills (dyscalculia). Focus on utilizing skills and strategies in conjunction with academic course materials. Development of math and language skills. Designed for Learning Skills students enrolled in math. Strongly recommended: English 116. 2 hours.

ENGLISH AS A SECOND LANGUAGE (ESL)

Chabot College does not offer beginning or "survival" ESL courses. ESL classes at Chabot College are at intermediate and advanced levels only.

108 BASIC SPELLING FOR ENGLISH AS A SECOND LANGUAGE **1 UNIT**
Basic sound/spelling patterns of English. Develops an understanding of the sounds and symbols of English, including open/closed syllables, short and long vowel sounds, consonant and consonant cluster sounds, spelling of homophones and other problem words in everyday English. Includes basic dictionary use. 1 hour

109 VOCABULARY SKILLS **1 UNIT**
English vocabulary and vocabulary-building skills for increasing language proficiency. 2 hours laboratory.

110A REVIEW OF BASIC ENGLISH FOR ESL **6 UNITS**
A comprehensive review of the structure of the simple English sentence; short writing assignments; reading fiction; reinforces fluency in reading and writing. 6 hours.

110B READING AND WRITING: THE PARAGRAPH **6 UNITS**
Logical paragraph development; reading both fiction and nonfiction; emphasis on the development of vocabulary and grammatical structures of written English. Prerequisite: ESL 110A*. 6 hours.

110C READING AND WRITING: FROM PARAGRAPH TO ESSAY **6 UNITS**
Expository paragraphs and short essays; fiction and non-fiction reading; emphasis on the development of vocabulary and grammatical structures of written English. Prerequisite: ESL 110B*. 6 hours.

110D READING AND WRITING: THE ESSAY **6 UNITS**
Expository essays; critical reading; emphasis on the development of vocabulary and grammatical structures of written English. Prerequisite: ESL 110C*. 6 hours.

111A LISTENING AND SPEAKING **2 UNITS**
Group and individual practice producing and responding to oral English; American history, geography, and culture. 3 hours.

111B ACADEMIC LISTENING AND SPEAKING **2 UNITS**
Group and individual practice producing and responding to oral English in the academic environment. 3 hours.

112 ENGLISH GRAMMAR: A RAPID REVIEW FOR ESL **3 UNITS**
Intermediate-level overview of the structures of English grammar. Important grammatical forms including verb tenses, articles, modal auxiliaries, the passive voice, reported speech, adjectival clauses, gerunds, infinitives, and conditional sentences. Strongly recommended: Eligibility for ESL 100C. 3 hours.

113 INTRODUCTION TO COMPUTER ASSISTED LANGUAGE LEARNING 2 UNITS

Acquire basic computer vocabulary and operating skills to enhance acquisition of English vocabulary, reading and writing. 3 hours laboratory.

114 EDITING FOR THE ADVANCED ESL WRITER 2 UNITS

Use of standard written English to develop personal strategies for self-editing. Designed to ease the transition between explicit ESL instruction and the fluency demands of mainstream English curriculum. Prerequisite: ESL 110D or eligibility for English 101A demonstrated through the English Placement Process. 4 hours. Total weeks—9.

**Or equivalent.*

ETHNIC STUDIES

**DEGREE:
AA – ETHNIC STUDIES**

The Cross Cultural Studies Program, interdisciplinary in scope, will begin with a focus on the history, literature and cultures of African-Americans, Asian Americans, Chicano-Latinos, and Native Americans. Courses explore the relations of these cultures to each other and to the dominant American culture in order to foster understanding about such topics as ethnicity, race, gender, sexuality/sexual orientation, class and religion.

**ETHNIC STUDIES
TRANSFER PROGRAM
AND ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR **FALL** **SPRING**

Sociology 3 (American Cultural and Racial Minorities)	3
Anthropology 5 (Cultural Pluralism)	3
<i>Twelve (12) units from the following:</i>	
English 21 (African American Literature)	3
English 22 (Mexican American/Latino Literature)	3
History 20 (African American History through 19th Century)	3
History 22 (Introduction to Mexican-American History and Culture)	3
History 25 (American Indian History and Culture)	3
Psychology 18 (Psychology of the African American Experience)	3

SOPHOMORE YEAR **FALL** **SPRING**

Political Science 40 (Contemporary Issues in American Politics)	3
Total	24

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

ETHNIC STUDIES

ENGLISH 21 THE EVOLUTION OF THE BLACK WRITER	3 UNITS
ENGLISH 22 MEXICAN-AMERICAN/LATINO LITERATURE OF THE U.S.	3 UNITS
HISTORY 20 AFRICAN-AMERICAN HISTORY THROUGH 19TH CENTURY	3 UNITS
HISTORY 21 AFRICAN-AMERICAN HISTORY 20TH CENTURY	3 UNITS
HISTORY 22 INTRODUCTION TO MEXICAN AMERICAN HISTORY AND CULTURE	3 UNITS
HISTORY 25 AMERICAN INDIAN HISTORY AND CULTURE	3 UNITS
PSYCHOLOGY 18 PSYCHOLOGY OF THE AFRICAN-AMERICAN EXPERIENCE	3 UNITS
PSYCHOLOGY— COUNSELING 17 INTERCULTURAL STUDIES	2 UNITS
PSYCHOLOGY— COUNSELING 26 COLLEGE SUCCESS AND THE CHICANO EXPERIENCE	1 UNIT
SOCIOLOGY 3 AMERICAN CULTURAL AND RACIAL MINORITIES	3 UNITS

FILM

- 11 STAGE TO FILM**
(See Theater Arts 11)
- 12 FILM AS ART AND COMMUNICATION**
(See Theater Arts 12)
- 16 INTRODUCTION TO PLAYWRITING FOR FILM, TELEVISION AND THEATER**
(See Theater Arts 16)
- 45 NARRATIVE FILM MUSIC**
(See Humanities 45)

FIRE TECHNOLOGY (FT)

**DEGREE:
AA – FIRE TECHNOLOGY
AA – FIRE PREVENTION INSPECTOR
CERTIFICATE OF ACHIEVEMENT:
FIRE TECHNOLOGY
FIRE PREVENTION INSPECTOR**

This two-year diploma program is designed for students who wish to pursue careers in fire protection, primarily for the inspection of industrial, commercial and institutional properties, environmental safety and accident prevention, and for people presently in those areas wishing to improve their academic and technical skills and abilities.

FIRE TECHNOLOGY

The Fire Technology program is based on the Uniform Fire Technology curriculum as approved by the State Board of Fire Services and the California Fire Chiefs Association. Successful completion of the program qualifies the pre-service student for State Firefighter-1 Certification. Classes are also offered for Fire Service Personnel leading to State Fire Officer Certification.

FIRE PREVENTION INSPECTOR

The program has been recognized by the Society of Fire Protection Engineers, which offers Student Grade Membership to students enrolled in the program, and Technician Grade Membership to graduates. The program offers general courses in applied physics and chemistry, as well as specialized courses in fire protection, environmental safety, building construction and sprinkler design.

**FIRE TECHNOLOGY
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Fire Technology 50 (Fire Protection Organization)	3	
Fire Technology 51 (Fire Service Operations)	3	
Fire Technology 52 (Firefighter Safety and Public Education)	3	
Health 61 (Emergency Response)	2½	
PE 2FSC (Fire Science Conditioning)	1	
Fire Technology 90A* (Firefighter-1 Certification Preparation)	2	
Fire Technology 90B* (Firefighter-1 Certification Preparation)	2	
Fire Technology 90C* (Firefighter-1 Certification Preparation)	2	
Fire Technology 91 A (Wildland Firefighting)	2	
Fire Technology 91B (Hazardous Materials First Responder- Operational)	1½	
Fire Technology 91C (I-200; Basic ICS)	1½	
Health 81 (EMT-Basic)	6½	

SOPHOMORE YEAR	FALL	SPRING
Fire Technology 54 (Fire Prevention Technology)	3	
Fire Technology 56 (Building Construction for Fire Protection)	3	
Fire Technology 53 (Fire Behavior Combustion)	3	
Fire Technology 55 (Fire Protection Equipment and Systems)	3	
Total		42

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

* Fire Technology 50, 51, 52 and Health 61 must be completed with a "C" or higher grade before acceptance to the Firefighter I Academy (Fire Technology 90A, 90B, 90C). A current EMT certificate will be accepted in lieu of Health 61

FIRE PREVENTION INSPECTOR

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Fire Technology 50 (Fire Protection Organization)	3	
Fire Technology 54 (Fire Prevention Technology)	3	
Fire Technology 56 (Building Construction for Fire Protection)	3	
Inspection 80A+ (Introduction to Construction Inspection I)	2	
Fire Technology 52 (Firefighter Safety & Public Education)	3	
Fire Technology 53 (Fire Behavior & Combustion)	3	
Fire Technology 55 (Fire Protection Equipment and Systems)	3	
Fire Technology 14A (Fire Investigation 1A)	2	

SOPHOMORE YEAR	FALL	SPRING
Inspection 82A+ (Building Codes I)	3	
Inspection 89*,+ (Plan Review Process)	3	
Inspection 90*,+ (Inspection Blueprint Reading)	2	
Inspection 82B+ (Building codes II)	3	
Fire Technology 72 (Fire Management I)	2	
Fire Technology 91B (Hazardous Materials First Responder-Operational)	1½	
Fire Technology 91C (I-200; Basic ICS)	1½	
Total		42

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

*Offered "as needed" i.e., alternate years.
+Evening classes only.

**FIRE TECHNOLOGY
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR	FALL	SPRING
Fire Technology 50 (Fire Protection Organization)	3	
Fire Technology 51 (Fire Service Operations)	3	
Fire Technology 52 (Firefighter Safety and Public Education)	3	
Health 61 (Emergency Response)	2½	
PE 2FSC (Fire Science Conditioning)	1	
Fire Technology 90A* (Firefighter-1 Certification Preparation)	2	
Fire Technology 90B* (Firefighter-1 Certification Preparation)	2	
Fire Technology 90C* (Firefighter-1 Certification Preparation)	2	
Fire Technology 91A (Wildland Firefighting)	2	
Fire Technology 91B (Hazardous Materials First Responder - Operational)	1½	
Fire Technology 91C (I-200; Basic ICS)	1½	
Health 81 (EMT-Basic)	6½	

SOPHOMORE YEAR	FALL	SPRING
Fire Technology 54 (Fire Prevention Technology)	3	
Fire Technology 56 (Building Construction for Fire Protection)	3	
Fire Technology 53 (Fire Behavior Combustion)		3
Fire Technology 55 (Fire Protection Equipment and Systems)		3
Total		42

*Fire Technology 50, 51, 52 and Health 61 must be completed with a "C" or higher grade before acceptance to the Firefighter I Academy (Fire Technology 90A, 90B, 90C). A current EMT certificate will be accepted in lieu of Health 61

**FIRE PREVENTION INSPECTOR
CERTIFICATE OF ACHIEVEMENT**

FRESHMAN YEAR	FALL	SPRING
Fire Service Technology 50 (Fire Protection Organization)	3	
Fire Service Technology 54 (Fire Prevention Technology)	3	
Fire Service Technology 56 (Building Construction for Fire Protection)	3	
Inspection 80A+ (Introduction to Construction Inspection I)	2	
Fire Technology 52 (Firefighter Safety & Public Education)	3	
Fire Technology 53 (Fire Behavior & Combustion)	3	
Fire Technology 55 (Fire Protection Equipment and Systems)	3	
Fire Technology 64A** (Hazardous Materials I)	2	
Inspection 80B+ (Construction Inspection and Housing Code)	2	
Inspection 82A+ (Building Codes I)	3	

SOPHOMORE YEAR	FALL	SPRING
Industrial Technology 74* (Measurements and Calculations)	3	
Inspection 82A+ (Building Codes I)	3	
Inspection 89*,+ (Plan Review Process)	3	
Inspection 90*,+ (Inspection Blueprint Reading)	2	
Inspection 82B+ (Building Codes II)	3	
Fire Technology 72 (Fire Management I)	2	
Fire Technology 91B (Hazardous Materials First Responder – Operational)	1½	
Fire Technology 91C (I-200; Basic ICS)	1½	
Total		39

*Offered "as needed" i.e., alternate years.
+Evening classes only

FIRE TECHNOLOGY (FT)

Fire Technology courses may be scheduled alternating years. Students may be required to take day and evening classes to complete the A.A. Degree.

50 FIRE PROTECTION ORGANIZATION 3 UNITS
Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems, introduction to fire strategy and tactics. 3 hours lecture, plus a total of 12 hours laboratory for the semester. Transfer: CSU.

51 FIRE SERVICE OPERATIONS 3 UNITS
Fundamentals of fire department organization, management and resources; fire company organization; resources to control various emergencies; multiagency coordinating systems; support and regulatory agencies; strategy and tactics applied to structural fire fighting; wildland fire fighting and hazardous material emergencies; and safety conditions to be considered. 3 hours lecture, plus a total of 12 hours laboratory for the semester. Transfer: CSU.

52 FIRE FIGHTER SAFETY AND PUBLIC EDUCATION 3 UNITS
Assessing fire dangers and handling common fire situations in the home and in the work place; risk abatement and personal preparation for unforeseen fire emergencies; roles and responsibilities in educating the public on fire safety. 3 hours.

53 FIRE BEHAVIOR AND COMBUSTION 3 UNITS
Theory and fundamentals of why fires start, spread, and are controlled. An in depth study of fire chemistry and physics fire characteristics of materials, extinguishing agents, and fire control techniques. 3 hours.

54 FIRE PREVENTION TECHNOLOGY 3 UNITS
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with built-in fire protection systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education System, Certified Firefighter I and Fire Inspector I. 3 hours. Transfer: CSU.

55 FIRE PROTECTION EQUIPMENT AND SYSTEMS 3 UNITS
History and development of the Uniform Fire Code; features, design, and operations of fire alarm systems and smoke detection systems; means and adequacy of required exiting systems. Installation and maintenance of automatic, manual, and other private fire-extinguishing equipment, heat and smoke control systems, water or sprinkler supply, water supply for fire protection and portable fire extinguishers. 3 hours. Transfer: CSU.

56 BUILDING CONSTRUCTION FOR FIRE PROTECTION 3 UNITS
Components of building construction that relate to fire/life safety. Elements of construction and design of structures as key factors when inspecting buildings, preplanning fire operations, and operating at fires/collapse emergencies. The development and evolution of building and fire codes in relationship to past fires/collapses in residential, commercial, and industrial occupancies. 3 hours. Transfer: CSU.

64A HAZARDOUS MATERIALS I 2 UNITS
Storage, handling laws, standards, and fire fighting practices pertaining to hazardous solids, liquids and gases. Includes review of chemistry of hazardous materials. Prerequisite: Fire Service Technology 50. 2 hours. Transfer: CSU.

64B HAZARDOUS MATERIALS II 2 UNITS
Knowledge of organic and inorganic materials, proper techniques to safeguard personnel and public. Emphasis on radioactive hazards. Prerequisite: Fire Service Technology 64A. 2 hours. Transfer: CSU.

70A BASIC RESCUE PRACTICES**2 UNITS**

Fire incident search and evacuation principles. Implementation of auto incident safety, access, first aid, extrication and removal operations. Wildland incident search procedures, knot tying and slope evacuation skills. Simulated automobile incident rescue exercises. Strongly recommended: Fire Service Technology 90A and 90 B (Firefighter-1) or active member of paid or volunteer fire department. 2 hours. Transfer: CSU.

70B ADVANCED RESCUE PRACTICES**2 UNITS**

Continuation of skills and knowledge from Fire Service Technology 70A. Application of triage principles. Implementation of multi-casualty incident safety, access, first aid, extrication and removal operations. Advanced wildland incident vertical slope lowering and hoisting skills. Structure collapse shoring, debris tunneling and trench collapse patient recovery techniques. Includes simulated structure collapse rescue and incident command exercises. Prerequisite: Fire Service Technology 70A. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

71A FIRE COMMAND 1A**2 UNITS**

Provides fire company officers with information and experience in command and control techniques. Emphasis on decision making, the art of commanding, the authority of command. Satisfies part of the requirements for the State Board of Fire Services Fire Officer Certification. 40 total hours. Transfer: CSU.

71B FIRE COMMAND 1B**2 UNITS**

Provides company officers with information and experience in command and control techniques. Emphasis on decision making and appropriate use of resources for the first arriving company officer at hazardous material incidents. Satisfies part of the requirements for the State Board of Fire Services Fire Officer Certification. 40 total hours. Transfer: CSU.

72 FIRE SERVICE MANAGEMENT**2 UNITS**

Development of skills and knowledge necessary to make the transition from a specialist or supervisory role to a managerial role. Preparation for State Board of Fire Services Fire Officer Certification. 40 total hours. Transfer: CSU.

73A FIRE PREVENTION 1A**2 UNITS**

Principles of fire prevention. Preparation for Fire Prevention Officer I Certification. 40 total hours. Transfer: CSU.

73B FIRE PREVENTION 1B**2 UNITS**

Private fire protection systems; code requirements for access and egress; life safety factors. Preparation for the Fire Prevention Officer I Certification. Prerequisite: Fire Service Technology 73A. 40 total hours. Transfer: CSU.

73C FIRE PREVENTION 1C**2 UNITS**

Storage, handling laws and standards pertaining to hazardous flammable liquids and gases. Review chemistry of hazardous materials. Principles of Fire Prevention to be applied. Preparation for Fire Prevention Officer I Certification. Code requirements reviewed and life safety factors. Prerequisite: Fire Technology 73B. 40 hours. Transfer: CSU

74 FIRE INVESTIGATION 1A**2 UNITS**

Application of fire investigation techniques relating to different types of fires. 40 total hours. Transfer: CSU.

75A FIRE INSTRUCTOR 1A**2 UNITS**

Methods and techniques to help fire service personnel select, develop, and organize materials for in-service programs. Designed for fire company officers who conduct in-service training programs. 32 total hours lecture, 8 total hours demonstration lab. 40 total hours. Transfer: CSU.

75B FIRE INSTRUCTOR 1B**2 UNITS**

A continuation of Fire Service Technology 75A. Practice in the development, implementation, and evaluation of inservice training programs. Prerequisite: Fire Technology 75A. 32 total hours lecture, 8 total hours demonstration lab. 40 total hours. Transfer: CSU.

90A FIREFIGHTER I –**CERTIFICATION PREPARATION****2 UNITS**

Development of individual skills and basic knowledge necessary to perform the functions of a firefighter. Practice in donning breathing apparatus, knot tying, placing ladders, pulling hose, making water supply, connections and using the incident command system. Prerequisite: Fire Technology 50, 51, 52; Health 61 or proof of current completion of an Emergency Medical Technician Program (*all courses completed with a grade of "C" or higher*). 24 total hours lecture, 40 total hours laboratory. Transfer: CSU.

90B FIREFIGHTER I –**CERTIFICATION PREPARATION****2 UNITS**

Continuation of skills and basic knowledge necessary to perform the functions of a firefighter, engineer and captain within a fire attack team. Practice in donning breathing apparatus, knot tying, placing ladders, pulling hose, making water supply connections and using the incident command system. Prerequisite: Fire Technology 90A (*completed with a grade of "C" or higher*). 24 total hours lecture, 40 total hours laboratory. Transfer: CSU.

90C FIREFIGHTER I –**CERTIFICATION PREPARATION****2 UNITS**

Continuation of skills and basic knowledge necessary to perform the functions of a fire attack team, in multiple company exercises, which include: hose and ladder evolutions; salvage and overhaul techniques; fire attack, control and extinguishment techniques for various situations. Firefighter 1 Graduation Certificate awarded upon successful completion. Students with six months paid experience or 12 months volunteer/work experience may apply for the State Certificate, with proof of current completion of a valid Emergency Medical Technician Program. Prerequisite: Fire Technology 90B (*completed with a grade of "C" or higher*). 24 total hours lecture, 40 total hours laboratory. Transfer: CSU.

91A WILDLAND INTERFACE FIREFIGHTING**2 UNITS**

Factors affecting wildland fire, prevention, fire behavior, and control techniques; emphasis on organization, weather patterns, and equipment usage, safety and wildland fire behavior. Course complies with the State Board of Fire Services requirements for Firefighter 1 Certification (1999). 28 hours lecture total, 12 hours lab total. Transfer: CSU.

91B HAZARDOUS MATERIALS**FIRST RESPONDER - OPERATIONAL LEVEL****1½ UNIT**

Hazard recognition and identification; incident response safety procedures; response to hazardous materials emergencies, emphasis on skills and knowledge necessary to protect lives, property, and the environment. Defensive tactics to contain the release from a safe distance and keep it from spreading, and to prevent exposures without trying to stop the release. Meets and exceeds the requirements of CFR 29 1910.120 and CCR Title 8. Course complies with the State Board of Fire Services requirements for Firefighter 1 certification (1999). 1½ hours. Transfer: CSU

91C I-200 BASIC ICS (INCIDENT COMMAND SYSTEM)**1½ UNIT**

Consists of modules 2 through 6 and meets the training needs of wildland fire personnel by introducing principles associated with the Incident Command System (ICS). Topics include: Organization, facilities, resource terminology, and the common responsibilities associated with incident or even assignments. Course complies with the State Board of Fire Services requirements for Firefighter 1 Certification (1999). 1½ hours. Transfer: CSU

95 WORK EXPERIENCE 1-3 UNITS
(May be repeated 3 times)
 College supervised on-the-job training while working in a fire service related occupation. Prerequisite: Fire Technology 90C and Fire Technology 91C. (State Fire Fighter I Academy Certificate course), and Health 81 (EMT Certificate course). Corequisite: Fire Technology 96. 5-15 hours. Transfer: CSU.

96 WORK EXPERIENCE SEMINARS 1 UNIT
(May be repeated 3 times)
 Focal point for the coordination of the curriculum with college supervised part-time or full-time employment, or volunteer work in the fire service field. Case studies, job related problems, student cases and presentations, and material related to employment, organization and management; emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Prerequisite: Fire Technology 90C and Health 81 (EMT Certificate course). Corequisite: Fire Technology 95. 1 hour. Transfer: CSU.

FOREIGN LANGUAGES (FORE)

1L FOREIGN LANGUAGE LAB 1/2 - 1 UNIT
(May be repeated 3 times)
 Foreign language grammar, pronunciation, conversation. Exploration of cultural components related to the target language. Co-requisite: concurrent enrollment in Foreign Language 1A, 1B, 2A, or 2B. 1½ - 3 laboratory hours.

CHINESE (CHIN)

50A CONVERSATIONAL CHINESE 2 UNITS
 Development of an understanding of spoken Chinese through pronunciation, vocabulary, and applied grammar. Introduction to the everyday culture of Chinese-speaking people. 3 hours.

50B CONVERSATIONAL CHINESE 2 UNITS
 Development of skills learned in Chinese 50A. Understanding of spoken Chinese through pronunciation, vocabulary, and applied grammar. Introduction to everyday life of Chinese-speaking people and the skills needed to successfully function in the culture. Prerequisite: Chinese 50A *(completed with a grade of "C" or higher)*. 3 hours.

50C CONVERSATIONAL CHINESE 2 UNITS
 Development of skills learned in Chinese 50B. Understanding and speaking Chinese through pronunciation, vocabulary, applied grammar, and the everyday life of Chinese-speaking people. Prerequisite: Chinese 50B *(completed with a grade of "C" or higher)*. 3 hours.

50D CONVERSATIONAL CHINESE 2 UNITS
 Development of skills learned in Chinese 50C. Proficiency in understanding and speaking Chinese through pronunciation, vocabulary, applied grammar, and the everyday life of Chinese-speaking people. Prerequisite: Chinese 50C *(completed with a grade of "C" or higher)*. 3 hours.

FRENCH (FREN)

**DEGREE:
 AA – FRENCH**

This program includes four semesters of thorough linguistic and cultural training in French, along with courses that shed light on France's and the French-speaking world's role in history, art, the humanities, and our own contemporary society. French is one of the world's most influential languages and there are opportunities for working in many industries where knowledge of French is considered valuable. Many majors at four-year universities have foreign language requirements that would be satisfied with the language courses in this degree program. Courses offered in this program meet general education and transfer requirements.

FRENCH

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
French 1A (Beginning French)		5
History 2 (History of Western Civilization Since 1600).....		3
French 1B (Elementary French)		5
Art 5 (Art History – Renaissance to Modern)		3

SOPHOMORE YEAR	FALL	SPRING
French 2A (Intermediate French)		4
Humanities 3 (Film—Drama—Music—Visual Art—Lyric Poetry).....		3
French 2B (Advanced French).....		4
Psychology-Counseling 13 (Multicultural Issues in Contemporary America)		3
Total		30

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

FRENCH (FREN)

1A BEGINNING FRENCH 5 UNITS
 Beginning study and practice in the four Foreign Language skills: listening, speaking, reading and composition in French. Strongly recommended: Eligibility for English 1A or 52A. 5 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS; with FREN 1B (CAN FREN SEQA).

1B ELEMENTARY FRENCH 5 UNITS
 Continuation of skills developed in French 1A. Beginning study and practice in the four Foreign Language skills: listening, speaking, reading and composition in French. Prerequisite: French 1A *(completed with a grade of "C" or higher)**.5 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Language; AA/AS; with FREN 1A (CAN FREN SEQA).

2A INTERMEDIATE FRENCH 4 UNITS
 Review of grammar; reading of works of modern authors; practice in conversation and composition. Prerequisite: French 1B *(completed with a grade of "C" or higher)*. 4 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS; (CAN FREN 8); with FREN 2B (CAN FREN SEQ B).

2B ADVANCED FRENCH**4 UNITS**

Reading of French authors; advanced review of grammar, emphasis on speaking and composition. Prerequisite: French 2A (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; (CAN FREN 10); with FREN 2A (CAN FREN SEQ B).

50A CONVERSATIONAL FRENCH**2 UNITS**

Development of a basic understanding of spoken French through a study of pronunciation, vocabulary, and applied grammar, and an introduction to the everyday culture of French-speaking people. 3 hours.

50B CONVERSATIONAL FRENCH**2 UNITS**

Development of skills learned in French 50A. Understanding of spoken French through a study of pronunciation, vocabulary, and applied grammar. Introduction to everyday life of French-speaking people and the skills needed to successfully function in culture. Prerequisite: French 50A (*completed with a grade of "C" or higher*). 3 hours.

50C CONVERSATIONAL FRENCH**2 UNITS**

Development of skills learned in French 50B. Understanding and speaking French through pronunciation, vocabulary, applied grammar, and the everyday life of French-speaking people. Prerequisite: French 50B (*completed with a grade of "C" or higher*). 3 hours.

50D CONVERSATIONAL FRENCH**2 UNITS**

Development of skills learned in French 50C. Proficiency in understanding and speaking French through pronunciation, vocabulary, applied grammar, and the everyday life of French-speaking people. Prerequisite: French 50C (*completed with a grade of "C" or higher*). 3 hours.

GERMAN (GERM)**1A BEGINNING GERMAN****5 UNITS**

Beginning study and practice in the basic Foreign Language skills: listening, speaking, reading, composition and culture in German. Strongly recommended: Eligibility for English 1A or 52A. 5 hours. Transfer: CSU, UC; AA/AS; with GERM 1B (CAN GERM SEQ A).

1B ELEMENTARY GERMAN**5 UNITS**

Continuation of skills developed in German 1A-Beginning study and practice in the basic Foreign Language skills: listening, speaking, reading, composition and culture in German. Prerequisite: German 1A (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC; IGETC: Language; AA/AS; with GERM 1A (CAN GERM SEQ A).

2A INTERMEDIATE GERMAN**4 UNITS**

Review of grammar; reading of works of modern authors; practice in conversation and composition. Prerequisite: German 1B (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; (CAN GERM 8).

2B ADVANCED GERMAN**4 UNITS**

Reading of German authors; advanced review of grammar; emphasis on speaking and composition. Prerequisite: German 2A (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3.

50A CONVERSATIONAL GERMAN**2 UNITS**

Development of a basic understanding of spoken German through pronunciation, vocabulary, and applied grammar, and an introduction to the everyday culture of German-speaking people. 3 hours.

50B CONVERSATIONAL GERMAN**2 UNITS**

Development of skills learned in German 50A. Understanding of spoken German through pronunciation, vocabulary, and applied grammar. Introduction to everyday life of German-speaking people and the skills needed to successfully function in culture. Prerequisite: German 50A (*completed with a grade of "C" or higher*). 3 hours.

ITALIAN (ITAL)**1A BEGINNING ITALIAN****5 UNITS**

Beginning study and practice in the basic foreign language skills: listening, speaking, reading, composition, and culture in Italian. Strongly recommended: Eligibility for English 1A or 52A. 5 hours. Transfer: CSU, UC; AA/AS; with ITAL 1B (CAN ITAL SEQ A).

1B ELEMENTARY ITALIAN**5 UNITS**

Continuation of skills developed in Italian 1A. Beginning study and practice in the basic foreign language skills; listening, speaking, reading, composition, and culture in Italian. Prerequisite: Italian 1A (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Language; AA/AS; with ITAL 1A (CAN ITAL SEQ A).

50A CONVERSATIONAL ITALIAN**2 UNITS**

Development of a basic understanding of spoken Italian through pronunciation, vocabulary, and applied grammar, and an introduction to the everyday culture of Italian-speaking people. 3 hours.

50B CONVERSATIONAL ITALIAN**2 UNITS**

Development of skills learned in Italian 50A. Understanding of spoken Italian through pronunciation, vocabulary, and applied grammar. Introduction to everyday life of Italian-speaking people and the skills needed to successfully function in culture. Prerequisite: Italian 50A (*completed with a grade of "C" or higher*). 3 hours.

JAPANESE (JAPN)**1A BEGINNING JAPANESE****5 UNITS**

Beginning study and practice in the the basic foreign language skills: listening, speaking, reading, composition, and culture in Japanese. Strongly recommended: eligibility for English 1A or 52A. 5 hours. Transfer: CSU, UC; AA/AS.

1B ELEMENTARY JAPANESE**5 UNITS**

Continuation of skills developed in Japanese 1A. Beginning study and practice in the basic foreign language skills: listening, speaking, reading, composition, and culture in Japanese. Prerequisite: Japanese 1A (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC; IGETC: Language; AA/AS.

50A CONVERSATIONAL JAPANESE**2 UNITS**

Development of a basic understanding of spoken Japanese through pronunciation, vocabulary, and applied grammar, and an introduction to the everyday culture of Japanese speaking people. 3 hours.

50B CONVERSATIONAL JAPANESE**2 UNITS**

Development of skills learned in Japanese 50A. Understanding of spoken Japanese through a study of pronunciation, vocabulary, and applied grammar. Introduction to everyday life of Japanese-speaking people and the skills needed to successfully function in that culture. Prerequisite: Japanese 50A (*completed with a grade of "C" or higher*). 3 hours.

50C CONVERSATIONAL JAPANESE**2 UNITS**

Development of skills learned in Japanese 50B. Understanding and speaking Japanese through pronunciation, vocabulary, applied grammar, and the everyday life of Japanese-speaking people. Prerequisite: Japanese 50B (*completed with a grade of "C" or higher*). 3 hours.

50D CONVERSATIONAL JAPANESE**2 UNITS**

Development of skills learned in Japanese 50C. Proficiency in understanding and speaking Japanese through pronunciation, vocabulary, applied grammar, and the everyday life of Japanese-speaking people. Prerequisite: Japanese 50C (*completed with a grade of "C" or higher*). 3 hours.

PORTUGUESE (PORT)

50A CONVERSATIONAL PORTUGUESE **2 UNITS**
 Development of a basic understanding of spoken Portuguese through pronunciation, vocabulary, and applied grammar, and an introduction to the everyday culture of Portuguese-speaking people. 3 hours.

50B CONVERSATIONAL PORTUGUESE **2 UNITS**
 Development of skills learned in Portuguese 50A. Understanding of spoken Portuguese through pronunciation, vocabulary, and applied grammar. Introduction to everyday life of Portuguese-speaking people and the skills needed to successfully function in that culture. Prerequisite: Portuguese 50A (*completed with a grade of "C" or higher*). 3 hours.

50C CONVERSATIONAL PORTUGUESE **2 UNITS**
 Development of skills learned in Portuguese 50B. Understanding and speaking Portuguese through pronunciation, vocabulary, applied grammar, and the everyday life of Portuguese-speaking people. Prerequisite: Portuguese 50B (*completed with a grade of "C" or higher*). 3 hours.

50D CONVERSATIONAL PORTUGUESE **2 UNITS**
 Development of skills learned in Portuguese 50C. Proficiency in understanding and speaking Portuguese through pronunciation, vocabulary, applied grammar, and the everyday life of Portuguese-speaking people. Prerequisite: Portuguese 50C (*completed with a grade of "C" or higher*). 3 hours.

SPANISH (SPAN)

DEGREE:

AA – SPANISH

This program includes four semesters of thorough linguistic and cultural training in Spanish, along with courses that shed light on Mexico's and the Spanish-speaking world's role in history, art, the humanities, and our own contemporary society. Spanish is one of the world's most influential languages and there are opportunities for working in many industries where knowledge of Spanish is considered valuable. Many majors at four-year universities have foreign language requirements that would be satisfied with the language courses in this degree program. Courses offered in this program meet general education and transfer requirements.

SPANISH

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING	
Spanish 1A (Beginning Spanish)			5
English 22 (Mexican American/ Latino Literature of the U.S.)			3
Spanish 1B (Elementary Spanish)			5
Sociology 3 (American Cultural and Racial Minorities) or Psychology Counseling 13 (Multicultural Issues in Contemporary America)			3
SOPHOMORE YEAR			
	FALL	SPRING	
Spanish 2A (Intermediate Spanish)			4
History 22 (Introduction to Mexican- American History and Culture)			3
Spanish 2B (Advanced Spanish)			4
Spanish 5 (Field Work Relations)			1
Total			28

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total units required **60**

SPANISH (SPAN)

1A BEGINNING SPANISH **5 UNITS**
 Beginning study and practice in the basic Foreign Language learning skills: listening, speaking, reading, composition, and culture in Spanish. Strongly recommended: eligibility for English 1A or 52A. 5 hours. Transfer: CSU, UC; CSU/GE: Area C; AA/AS; with SPAN 1B: (CAN SPAN SEQA).

1B ELEMENTARY SPANISH **5 UNITS**
 Continuation of the skills developed in Spanish 1A. Continued study and practice in the basic foreign language skills: listening, speaking, composition, and culture in Spanish. Prerequisite Spanish 1A (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC; CSU/GE: Area C2; IGETC: Language; AA/AS; with SPAN 1A: (CAN SPAN SEQA).

2A INTERMEDIATE SPANISH **4 UNITS**
 Review of grammar; reading of works of modern authors; practice in conversation and composition. Prerequisite: Spanish 1B (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU, UC; CSU/GE: Area C2; IGETC: Area 3; AA/AS; (CAN SPAN 8); with SPAN 2B: (CAN SPAN SEQ B).

2B ADVANCED SPANISH **4 UNITS**
 Reading of Spanish authors; advanced review of grammar; emphasis on speaking and composition. Prerequisite: Spanish 2A (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU, UC; CSU/GE: Area C2; IGETC: Area 3; (CAN SPAN 10); with SPAN 2A: (CAN SPAN SEQB).

5 FIELD WORK RELATIONS **1 UNIT**
(May be repeated 3 times)
 Practice of Spanish language in real setting and involvement in local Hispanic culture through field work in a local Hispanic community organization. Strongly recommended: completion of or concurrent enrollment in Spanish 2A. 4 hours laboratory. Transfer: CSU; CSU/GE: C2.

50A CONVERSATIONAL SPANISH **2 UNITS**
 Development of a basic understanding of spoken Spanish through pronunciation, vocabulary, and applied grammar and an introduction to the everyday culture of Spanish-speaking people. 3 hours.

50B CONVERSATIONAL SPANISH **2 UNITS**
 Development of skills learned in Spanish 50A. Understanding of spoken Spanish through pronunciation, vocabulary, and applied grammar. Introduction to everyday life of Spanish-speaking people and the skills needed to successfully function in that culture. Prerequisite: Spanish 50A (*completed with a grade of "C" or higher*). 3 hours

50C CONVERSATIONAL SPANISH **2 UNITS**
 Development of skills learned in Spanish 50B. Understanding and speaking Spanish through pronunciation, vocabulary, applied grammar, and the everyday life of Spanish-speaking people. Prerequisite: Spanish 50B (*completed with a grade of "C" or higher*). 3 hours.

50D CONVERSATIONAL SPANISH **2 UNITS**
 Development of skills learned in Spanish 50C. Proficiency in understanding and speaking Spanish through pronunciation, vocabulary, applied grammar, and the everyday life of Spanish-speaking people. Prerequisite: Spanish 50C (*completed with a grade of "C" or higher*). 3 hours.

52 MEDICAL SPANISH **2 UNITS**
 Skills for communicating in spoken Spanish with Spanish speaking patients. Practice in dialogues leading to free conversations about health related topics. 3 hours.

FRENCH

(See Foreign Languages)

GENERAL STUDIES (GNST)

10 FACULTY ASSISTANT EXPERIENCE FOR POTENTIAL TEACHERS 1-2 UNITS

(May be repeated 3 times)

Work as a faculty assistant to gain a variety of experiences related to teaching and learning tasks. May not assist in course sections in which enrolled. Prerequisite: consent of instructor and Office of Academic Services. 2½-5 hours. Transfer: CSU.

11 EXPLORING EDUCATION 3 UNITS

Introduction to the field of teaching and education. Directed observations of elementary, middle, and secondary classrooms. Examination of changing issues in education and their implications on teaching practice and theory. 3 hours lecture, 2 hours laboratory. Transfer: CSU.

20 INTRODUCTION TO THE COLLEGE ENVIRONMENT 2 UNITS

A course designed for new and returning students to familiarize them with college life, information, and skills needed for achieving academic success. Course emphasis will center on knowledge of resources and services, college policies, success skills, and student rights and responsibilities. May not be taken if Psychology-Counseling 20 has been taken. 2 hours. Transfer: CSU.

25 STUDENT LEADERSHIP 1-2 UNITS

Processes and methods of communication in group situations, including parliamentary procedure, preparation of agenda and minutes, and organization accounting. Introduction to student government procedures and policies. Recommended for members of the Student Government Assembly, club officers, members of college wide committees and others interested in leadership. 1 hour lecture, 2-4 hours lab.

30 INTRODUCTION TO WOMEN'S STUDIES 3 UNITS

Interdisciplinary readings on the struggles and contributions of women in education, government and politics, religion, social science and the arts. Study of patterns of resistance and triumph through the study of particular historical situations as well as of individual women. Topics examined from both international and national perspectives, including current events. Consideration of ethnicity, race, language, immigration, colonialism, and post-colonialism. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU; UC.

31 WOMEN'S SPIRITUALITY: AN EXAMINATION OF ANCIENT AND EMERGING TRADITIONS 3 UNITS

A cross-cultural look at the women's spirituality movement in the U.S. and abroad. Examination of reformist aspects of this movement as they impact religions such as Christianity, Islam, Judaism, Buddhism and/or Hinduism. Also focus on the reclamation of pre-Christian and indigenous spiritual systems of Europe and the Americas. Explores text, ritual, music, and film. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU; UC; CSU/GE: C2, D4; IGETC: Area 3; AA/AS.

39 MULTICULTURAL FOUNDATIONS OF MATHEMATICS AND SCIENCE 3 UNITS

A chronological survey of the development of math in Africa, Latin America and Asia, and its relation to science, technology, and economics there and in the modern world; an alternative to the prevalent theory of a purely European origin of mathematics. Strongly recommended: Mathematics 105 or 105L (may be taken concurrently). 3 hours. Transfer: CSU.

115 FACULTY-STUDENT TUTORIAL: WRITING AND READING ACROSS THE CURRICULUM ½ - 4 UNITS

(General Studies 115 and English 115 may be repeated for a combined total of 3 times. May enroll through tenth week of instruction)

Preparation in English for success in college or career. Self-paced, individualized instruction in reading and writing effectiveness. 2-8 hours.

GEOGRAPHY (GEOG)

1 INTRODUCTION TO PHYSICAL GEOGRAPHY 3 UNITS

Earth's natural environments, with emphasis on spatial characteristics, change over time, interactions between environmental components, and human environment interactions. Physical processes, techniques, and tools by which Earth's climates, soils, vegetation, water resources, and land forms are linked into integrated global patterns. Affect of natural environments on human activities and how humans modify environments. Field trips may be included. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A; AA/AS; (CAN GEOG 2).

1L INTRODUCTION TO PHYSICAL GEOGRAPHY LABORATORY 1 UNIT

Application of the concepts, techniques, tools, and materials of physical geography. Practical exercises, experiments, observations, data analyses, and computer applications/simulations which augment understanding of geographic processes, interrelationships, spatial patterns and distributions. Use of maps, remotely-sensed imagery, and geographic information systems. Includes locational reference systems, time-space relationships, weather, climate, soils, vegetation, and landforms. Field trips/field projects may be included. Prerequisite: Geography 1 (may be taken concurrently). 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B3; IGETC: Area 5A & Lab; AA/AS.

2 CULTURAL GEOGRAPHY 3 UNITS

Spatial analysis of human populations, their cultural traits, and activities. Emphasis on how diverse peoples, through their interactions and through their perceptions and use of the physical environment, create distinctive cultural landscapes. Social, political, and economic elements of geography which contribute to the evolution of these global and regional cultural patterns. Field trips may be included. 3 hours. Transfer: CSU, UC; CSU/GE: D5; IGETC: Area 4; AA/AS; (CAN GEOG 4).

3 ECONOMIC GEOGRAPHY 3 UNITS

An introduction to the world's major economic systems; their spatial distribution and characteristics; their relative contributions to regional development and global change; and related movements of people, goods, and ideas. Techniques and tools of spatial analysis applied to human-environment interactions, with emphasis on ecological problems associated with specific economic activities. Field trips may be included. 3 hours. Transfer: CSU, UC; CSU/GE: D5; IGETC: Area 4; AA/AS.

5 WORLD REGIONAL GEOGRAPHY**3 UNITS**

Regions of the world and the way humans live within those regions. Includes physical and cultural characteristics of world regions, how they are similar and how they are different, economic patterns, agriculture, industrial development and population dynamics. Emphasis on contemporary major issues and their geographic impact. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: SD; IGETC: Area 4; AA/AS.

8 INTRODUCTION TO ATMOSPHERIC SCIENCE**3 UNITS**

Introduction to weather and climate and their impact on and modification by human activities. Emphasis on weather elements, events, and processes; climate controls; and the techniques, tools, and instruments of atmospheric science. Includes atmospheric optics, weather prediction, severe storms, air pollution, global/regional warming/cooling, ozone depletion, acid rain, El Nino, deforestation, desertification, and other topics related to everyday experience and global climate change. Field trips and observational activities may be included. Strongly Recommended: Geography 1, eligibility for English 1A, Mathematics 65 and 65L. 3 hours. Transfer: CSU, UC; CSU/GE: Ba; IGETC: SA; AA/AS.

11 GEOGRAPHY OF THE SAN FRANCISCO BAY AREA**3 UNITS**

Natural geography of the San Francisco Bay Area in relation to the historical, cultural and environmental development of the Bay region. Highlights past and present geographical, historical and ecological issues. Field trips may be included. 3 hours.

12 GEOGRAPHY OF CALIFORNIA**3 UNITS**

California's physical, cultural, and regional elements. The physical geographic base includes: location; geological evolution; geomorphic provinces, natural hazards, and resources; climate, water resources, vegetation, and soils. Historically developed cultural themes include: Native American and Hispanic origins; migration patterns and settlements; population growth and ethnic diversity; land use and economic activities; and Pacific Rim connections. Human-environment interactions and issues are considered throughout. Field trips may be included. 3 hours. Transfer: CSU, UC; CSU/GE: D5; IGETC: Area 4; AA/AS.

20 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS**3 UNITS**

Computer-based information technology tools and techniques that analyze spatial relationships between locations and attributes of physical, cultural, and economic features. Visualization of geographic relationships to support decision-making through interactive linkages of maps, databases, images, and charts. Introduction to GIS theory, principles, concepts, applications, and operations. Field trips may be required. (Strongly recommended: previous PC experience). 3 hours. Transfer: CSU; UC; AA/AS.

GEOLOGY (GEOL)**1A PHYSICAL GEOLOGY****4 UNITS**

Introduction to the forces and materials that shape the Earth. Emphasis on plate tectonics, volcanoes, earthquakes, hydrology, erosion, beach systems, environmental geology, rocks, minerals and geologic maps. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: 5A & Lab; AA/AS; (CAN GEOL 2).

1B HISTORICAL GEOLOGY**4 UNITS**

Evolutionary geology of earth. Emphasis on sedimentary processes, sedimentary rocks, their fossils and structures. Prerequisite: Geology 1A or 10. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; (CAN GEOL 4).

10 INTRODUCTION TO GEOLOGY**3 UNITS**

Earthquakes, volcanism, and plate tectonics as shapers of the earth's surface. Formation and use of energy and material resources. Origin and history of prehistoric life. May not be taken for credit if Geology 1A or 1B have been completed. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A; AA/AS.

10L INTRODUCTION TO GEOLOGY LAB**1 UNIT**

Introduction to the materials and techniques of geology. Includes maps, minerals, rocks, and fossils. Prerequisite: Geology 10 (may be taken concurrently). May be offered in Distance Education delivery format. 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B3; IGETC: Area 5A & Lab; AA/AS.

12 INTRODUCTION TO OCEANOGRAPHY**3 UNITS**

Introduction to the oceans, their history and topography; physical and chemical properties of sea water; causes and effects of currents, tides, and waves; distribution of marine resources; sea floor sediments; tectonics and paleomagnetism. 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: 5A; AA/AS.

12L INTRODUCTION TO OCEANOGRAPHY LAB**1 UNIT**

Introduction to laboratory principles and techniques with emphasis on the physical marine environment. Prerequisite: Geology 12 (may be taken concurrently). 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B3; IGETC: Area 5A & Lab; AA/AS.

15 ENVIRONMENTAL GEOLOGY**3 UNITS**

Modification of natural systems (e.g., rivers and drainages, dams, groundwater, slopes, deforestation, shoreline systems, etc.) water disposal (e.g., solid wastes, landfills, drinking water, smog, acid rain, radioactive wastes, mining wastes, etc.) and other environmental geohazards (e.g., as associated with earthquakes, volcanoes, flooding, landslides, etc.) 3 hours. Transfer: CSU, UC; AA/AS.

21 GEOLOGY OF THE WEST**3 UNITS**

Geological features of the West. Examples drawn from the Grand Canyon, Sierras, Rocky Mountains, and the western National parks to illustrate the processes of geology. Prerequisite: Geology 10 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC; CSU/GE: B1; IGETC: Area 5A.

GERMAN

(See Foreign Languages)

GERONTOLOGY

(See Sociology)

GRAPHIC DESIGN

(See Art)

HEALTH (HLTH)

1 INTRODUCTION TO HEALTH 3 UNITS

Physiological, psychological, and social perspectives of health. Emphasis on knowledge, attitudes and behaviors that will contribute to a healthy individual. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

2 HEALTH ISSUES 2 UNITS

Investigation, analysis, and evaluation of selected contemporary health and ethical issues with the intent of acquiring insight into the health care delivery systems, health attitudes and behavior. Concepts and issues in contemporary health. 2 hours. Transfer: CSU, UC; CSU/GE: E.

4 WOMEN AND HEALTH 3 UNITS

Health issues that affect women in contemporary American society. Exploration of current health concerns, legislation, medical practices, attitudes and behaviors that promote health and wellness. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

8 HUMAN SEXUALITY 3 UNITS

(See also *Psychology 8* or *Sociology 8*)

Physiological and psychosocial aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual well-being and sexual integrity. May not receive credit if Psychology 8 or Sociology 8 has been completed. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

17 INTRODUCTION TO HOLISTIC HEALTH 2 UNITS

Introduction to the concepts of holistic health whereby the individual is viewed as a dynamic being interacting in an ever-changing environment. Focus on discovering personal power through the application of holistic health principles and practices. Designed to optimize individual's choice regarding health care decisions. May be offered in Distance Education delivery format. 2 hours. Transfer: CSU.

50 ORIENTATION TO HEALTH CARE DELIVERY SYSTEM 2 UNITS

Overview of health professions and health care facilities, the roles of governmental agencies, professional associations, fiscal intermediaries and consumers. Provides a historical background of the health care delivery system and its contemporary practice. May be offered in Distance Education delivery format. 2 hours. Transfer: CSU.

51A BASIC MEDICAL TERMINOLOGY 4 UNITS

Terminology used typically by the medical profession; explanation of the history of terminology, prefixes, suffixes, and root words, emphasis on spelling, definitions, pronunciation, and an understanding of their meanings; includes medical abbreviations, pharmaceutical terms, terminology utilized in patient records management; introduction to anatomical terms, and terms related to disease processes. May be offered in Distance Education delivery format. 4 hours. Transfer: CSU.

51B DISEASE PROCESS AND ADVANCED MEDICAL TERMINOLOGY 4 UNITS

Introduction to the nature of disease and to the structural and functional changes of diseases as they affect the systems of the body; discussion of causes, symptoms and treatment of disease. Prerequisites: Health 51A (completed with a grade of "C" or higher). 4 hours. Transfer: CSU.

53 QUALITY AND CONTINUOUS QUALITY IMPROVEMENT IN HEALTH CARE 1 UNIT

Evaluate the history and methodology of quality assurance in the health care setting. The continuous quality improvement process, methodologies and tools will be discussed and utilized to understand the relationship to providing high quality health care in an efficient, customer oriented environment. Strongly recommended: Health Information Technology 50 or equivalent. 1 hour. Transfer: CSU.

54 UTILIZATION MANAGEMENT, RISK MANAGEMENT AND MEDICAL STAFF CREDENTIALING 1 UNIT

Study of utilization management in the health care environment, with emphasis on clinical pathways, regulatory requirements, reimbursement issues and case management. Risk management is the process of evaluating potentially compensable events that could result in an injury or financial loss. Credentialing is the process which medical practitioners are evaluated for quality and control of services provided. Each topic will investigate the history, regulatory requirements and methodologies associated with each of these quality assurance activities. Strongly recommended: Health Information Technology 50 or equivalent. 1 hour. Transfer: CSU.

56 INTRODUCTORY PHARMACOLOGY/ LAB TESTS AND VALUES FOR THE HEALTH OCCUPATIONS 2 UNITS

Introduction to the study of drugs and drug therapy as they relate to the health occupations, i.e., coding of diagnoses and procedures. Includes a study of the preparation, use and actions of chemicals having an affect on biological function. Study of laboratory tests, diagnostic tests and known normal ranges to interpret findings on common diagnostic tests, pathological findings and vital signs. 2 hours.

58 INTRODUCTION TO MEDICAL TRANSCRIPTION AND DOCUMENT FORMAT 1 1/2 UNITS

Introduction to the process of dictating, equipment of transcription, formatting of medical documentation, medical report requirements and current issues in medical transcription. Prerequisite: Health 51A (completed with a grade of "C" or higher). Strongly recommended: ability to type 35 wpm and Computer Science 8, Health 51B. 24 total lecture hours, 12 total laboratory hours.

59 MEDICAL TRANSCRIPTION MODULES

This is a self-paced program with learning at a distance opportunities providing mastery learning modules in transcription of medical reports. Credit earned based on competency of each module. Modules must be completed in sequence. Modules include:

59A PHYSICIAN OFFICE NOTES 1 UNIT

Prerequisite: Health 51A and Health 58 or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59B RADIOLOGY 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59A or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59C EMERGENCY ROOM NOTES 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59A, Health 59B or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59D PATHOLOGY/EKG 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59C or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59E HISTORY AND PHYSICAL EXAMINATIONS 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59D or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59F CONSULTATIONS 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59E or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59G DISCHARGE SUMMARIES 1 UNIT

Prerequisite: Health 51A, Health 58, and Health 59F or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59H OPERATIVES—GENERAL**1 UNIT**

Prerequisite: Health 51A, Health 58, and Health 59G or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59I OPERATIVES—UROLOGY AND REPRODUCTIVE**1 UNIT**

Prerequisite: Health 51A, Health 58, and Health 59H or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59J OPERATIVES—CARDIOVASCULAR**1 UNIT**

Prerequisite: Health 51A, Health 58, and Health 59I or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59K OPERATIVES—ORTHOPEDICS AND ONCOLOGY**1 UNIT**

Prerequisite: Health 51A, Health 58, and Health J or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

59L SPECIAL REPORTS**1 UNIT**

Prerequisite: Health 51A, Health 58, and Health 59K or equivalent experience. May be offered in Distance Education delivery format. 3 hours laboratory.

60 RESPONDING TO EMERGENCIES**1 UNIT**

Development of knowledge and skills for recognizing and caring for emergency situations. Includes healthy lifestyles, and prevention of illness and injury. Designed to meet the needs of individuals in the community who frequently provide First Aid. Successful completion of the knowledge and skills tests qualifies for an American Red Cross Responding to Emergencies card and Adult CPR card. 1 hour lecture, 1 hour laboratory. Transfer: CSU.

61 EMERGENCY RESPONSE**2½ UNITS**

Development of knowledge and skills necessary for recognizing and caring for emergency situations, including cardiopulmonary resuscitation, prevention of disease transmission and automated external defibrillation. Designed for first responders in an emergency. Successful completion of the knowledge and skills test qualifies for an American Red Cross Emergency Response card and a Basic Life Support Provider CPR card. 2 hours lecture, 2 hours laboratory.

70A HEARTSAVER CARDIOPULMONARY RESUSCITATION**½ UNIT**

(May be repeated 3 times)

Designed to teach Cardiopulmonary Resuscitation (CPR) and relief of foreign-body airway obstruction (FBAO) to all lay rescuers, particularly those expected to respond to emergencies in the workplace. Participants include security guards, firefighters, police and other lay responders. May be used to teach CPR to lay rescuers but specifically designed for lay rescuers required to obtain a Heartsaver course completion card. Successful completion of the final exam and skills performance will qualify the participant for an American Heart Association Heartsaver CPR course completion card. 6 hours lecture, 6 hours laboratory, 12 hours total.

70B BASIC LIFE SUPPORT FOR HEALTHCARE PROVIDERS**½ UNIT**

(May be repeated 3 times)

Teaches Cardiopulmonary Resuscitation (CPR) skills for victims for all ages. Includes ventilation with barrier device, bag-mask device, and oxygen. Use of automated external defibrillator (AED) and relief of foreign body airway obstruction (FBAO). Intended for participants providing health care in and out of hospital, including, but not limited to, physicians, nurses, paramedics, emergency medical technicians, respiratory therapists, physical and occupational therapists, physician's assistants, medical assistants, and nursing assistants. Also for anyone required to take healthcare provider course for employment. Successful completion of final exam and skills performance qualifies participant for American Heart

Association Healthcare Provider course card. Prerequisite: Health 70A or Health 60 or current CPR card for renewal. 2 total hours lecture, 4 total hours laboratory. 6 total hours. Transfer: CSU.

81 EMERGENCY MEDICAL TECHNICIAN—BASIC**6½ UNITS**

Provides training in the foundation skills and knowledge required of the EMT-1 scope of practice. The EMT-1 certification is the minimum requirement for ambulance attendants and most entry level firefighter positions. EMT-1 certification is also required for entry into paramedic training. This training program is accredited by the Alameda County Emergency Medical Services Agency. Prerequisite: Health 61 (*completed with a grade of "C" or higher*). 5 hours lecture, 4½ hours laboratory. Transfer: CSU.

83 PATIENT STABILIZATION, EXTRICATION AND TRIAGE**½ UNIT**

Patient stabilization techniques to include safe patient extrication from a simulated motor vehicle accident. Includes triage for multi-casualty incident/disaster management. Corequisite: Health 81. 3 total hours lecture, 4 total hours laboratory. Transfer: CSU.

HEALTH INFORMATION TECHNOLOGY (HIT)

DEGREE:**AS – HEALTH INFORMATION TECHNOLOGY****CERTIFICATE OF ACHIEVEMENT:****HEALTH INFORMATION CODING
MEDICAL TRANSCRIPTION****CERTIFICATE OF COMPLETION:****HEALTH INFORMATION CLERK**

The Health Information Technology Program provides students with the knowledge and skills necessary to process, analyze, disseminate, and maintain health care information. A career as a Health Information professional offers a unique opportunity to combine an interest in health information, business, and computer information service.

This program in Health Information Technology is accredited by the Committee on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the American Health Information Management Association. Completion of this program qualifies the student to write the accreditation examination of the American Health Information Management Association for the designated Accredited Record Technician.

HEALTH INFORMATION TECHNOLOGY**ASSOCIATE IN SCIENCE DEGREE**

This program in Health Information Technology is accredited by the Commission on Allied Health Education (CAAHEP) in collaboration with the American Health Information Management Association (AHIMA). Completion of this program qualifies the student to write the accreditation examination of the American Health Information Management Association for the designation as "Registered Health Information Technologist".

FRESHMAN YEAR	FALL	SPRING
Biology 50 (Anatomy and Physiology)		4
Health 51 B (Disease Process and Advanced Medical Terminology)		4
Health Information Technology 50 (Introduction to Health Information Management and Documentation)		3
Health 56 (Introductory Pharmacology/Lab Tests and Values for the Health Occupations)		2
Health Information Technology 51 (Health Information Systems)		2
Health Information Technology 52 (Information Retrieval and Statistics)		2
Health Information Technology 55 (Legal Aspects of Health Information)		2
Health Information Technology 64 (Topics in Health Information)		2

SOPHOMORE YEAR	FALL	SPRING
Health 53 (Quality and Continuous Quality Improvement in Health Care)		1
Health 54 (Utilization, Risk Management, and Medical Staff Credentialing)		1
Health Information Technology 57A (Introduction to Coding and Classification)		2½
Health Information Technology 65A (Clinical Practice I)		3
Health Information Technology 66A (Clinical Practice Seminar I)		1
Computer Application Systems 58 (Introduction to Database Concepts)		3
Health Information Technology 56A (Basic CPT and Outpatient Coding)		2
Health Information Technology 57B (Advanced Coding and Reimbursement)		2½
Health Information Technology 60 (Management in Health Information)		3
Health Information Technology 65B (Clinical Practice II)		3
Health Information Technology 66B (Clinical Practice Seminar II)		1
Total		44

General Education Courses
 For specific General Education courses refer to catalog section on
 Graduation Requirements.
Total minimum units required 60

- Recommendation Preparation for the Program:**
1. Health 50 completed with a grade of "C" or higher
 2. Computer Science 8 (Computer Literacy) or Computer Application Systems 8 or Computer Application Systems 50
 3. Health 51A completed with a grade of "C" or higher (prerequisite to Health 51B and HIT 50)

In addition, it is strongly recommended that Biology 50 be completed with a grade of "C" or higher, and that most of the Associate in Science Degree general education requirements are completed prior to entering the Health Information Technology program.

**HEALTH INFORMATION CODING
 CERTIFICATE OF ACHIEVEMENT**

A Health Information Coder is an individual who analyzes medical records and assigns codes to index diagnoses and procedures to support clinical care; to assist medical research in hospitals, physicians' offices, clinics and other health care facilities; and to provide information for reimbursement purposes. Codes are used by institutions for quality assurance activities and case mix management. A Health Information Coder is an important member of the health care team and contributes in varied health care settings, both inpatient and outpatient.

CORE COURSES	SUMMER	FALL	SPRING
Computer Science 8 (Computer Literacy) or Computer Application Systems 8 (Computer Literacy) or Computer Application System 50 (Introduction to Computer Application Systems)			3
Health 51A (Basic Medical Terminology)			4
Biology 50 (Anatomy and Physiology)			4
Health 51B (Disease Process and Advanced Medical Terminology)			4
Health Information Technology 50 (Introduction to Health Information Management and Documentation)			3
Health Information Technology 53 (Quality and Continuous Quality Management)			1
Health Information Technology 57A (Introduction to Coding and Classification)			2½
Computer Application Systems 58			3
Health 56 (Introduction to Pharmacology/ Lab Tests and Values)			2
Health Information Technology 56A (Basic CPT and Outpatient Coding)			2
Health Information Technology 57B (Advanced Coding and Reimbursement)			2½
Health Information Technology 64 (Topics in Health Information)			2
Health Information Technology 56B (Intermediate Outpatient Coding)			2
Health Information Technology 67 (Coding Clinical Practice)			1
Total			32

ADMISSION REQUIREMENT:
High School diploma or equivalent
Prerequisite: Health 51A (Basic Medical Terminology)

HEALTH INFORMATION CLERK CERTIFICATE OF COMPLETION

This certificate has been designed to provide an individual the entry level skills required for success in a health information department. All courses are transferable to the Associate in Science Degree in Health Information Technology Program at Chabot College. Completion of this certificate DOES NOT qualify an individual to take the national accreditation examination.

CORE COURSES	SUMMER	FALL	SPRING
Health 51A (Basic Medical Terminology) . . .	4		
Health Information Technology 50 (Introduction to Health Information Management and Documentation)	3		
Health 50 (Orientation to Health Care Delivery System)	2		
Computer Science 8 (Computer Literacy) or Computer Application Systems 8 (Computer Literacy) or Computer Application Systems 50 (Introduction to Computer Application Systems).	3		
Health Information Technology 55 (Legal Aspects of Health Information)	2		
Health Information Technology 64 (Topics in Health Information)	2		
Total	16		

ADMISSION REQUIREMENT:
High School diploma or equivalent

MEDICAL TRANSCRIPTION CERTIFICATE OF ACHIEVEMENT

WHAT IS A MEDICAL TRANSCRIPTIONIST?

A medical transcriptionist is a highly skilled and knowledgeable professional who transcribes medical dictation and is an important member of the health care team in hospitals, medical research, teaching centers, physician offices, and transcription services.

HOW THIS CERTIFICATE IS DESIGNED:

This program is in a module format. Students proceed through the modules at their own pace. Each module is based on a specific type of dictation content. Examination and enrollment in advanced modules occurs after a proctored, practical examination. Grading is based on current industry standards for spelling, grammar and accuracy.

	SUMMER	FALL	SPRING
Health 51A (Medical Terminology)	4		
Computer Application Systems 88A (Microsoft Word® I)	3		
Health 51B (Disease Process & Advanced Medical Terminology).	4		
Biology 50 (Anatomy & Physiology)	4		
Health 58 (Introduction to Medical Transcription & Documentation).	1½	(6 weeks)	
Health 59 A-D (Self-Paced Medical Transcription Modules)			
A: Physician Office Notes	1		
B: Radiology	1		
C: Emergency Department Notes.	1		
D: Pathology/EKG	1		

	SUMMER	FALL	SPRING
Health 56 (Introductory Pharmacology/ Lab Tests & Values For the Health Occupations)	2		
Health 59 E-L (Self-Paced Medical Transcription Modules)			
E: History & Physicals	1		
F: Consultation	1		
G: Discharge Summaries	1		
H: Operatives (General)	1		
I: Operative (Urology and Reproductive)	1		
J: Operatives (Cardiovascular)	1		
K: Operatives (Orthopedic/Oncology)	1		
L: Special Reports	1		
Total	30½		

Costs may include rental of transcription equipment if applicable.
For further information contact **Becky Wilkins (510) 656-6824** or
Diane Premeau (510) 723-7496.

HEALTH INFORMATION TECHNOLOGY (HIT)

50 INTRODUCTION TO HEALTH INFORMATION MANAGEMENT AND DOCUMENTATION 3 UNITS

History and organization of the health information management profession as well as the technical process of quantitative and qualitative analysis. Emphasis on filing and numbering systems, information storage and retention, and clinical documentation requirements in various health care settings. Prerequisite: Health 51A (*completed with a grade of "C" or higher*). Strongly recommended: Health 50 (*completed with a grade of "C" or higher*). 2 hours lecture, 3 hours laboratory. Transfer: CSU.

51 HEALTH INFORMATION SYSTEMS 2 UNITS

System analysis in the health care setting with emphasis on technological applications used in the health information management field. Prerequisite: Health Information Technology 50 (*completed with a grade of "C" or higher*). Strongly recommended: Computer Science 8 (*completed with a grade of "C" or higher*). 2 hours lecture, 1 hour laboratory. Transfer: CSU.

52 INFORMATION RETRIEVAL AND STATISTICS 2 UNITS

Sources, definitions, collection and presentation of health data. Special registers, birth and death certificates, definitions and formula for computation of basic health care statistics. Manual and computerized methods for collection and presentation of data. Prerequisite: Health Information Technology 50 (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 2 hours. Transfer: CSU.

55 LEGAL ASPECTS OF HEALTH INFORMATION 2 UNITS

Study of the legal aspects of health information, including privacy and confidentiality issues. Emphasis on the proper release of health information and legal procedures involved in court disclosure of health information. Includes patient access to their health information, current health legislature, bioethical issues, as well as study of the California Consent Manual. Prerequisite: Health Information Technology 50 (*completed with a grade of "C" or higher*). 2 hours. Transfer: CSU.

56A BASIC CPT AND OUTPATIENT CODING 2 UNITS

Introduction to basic CPT coding using both a manual system and an automated encoder. Introduction to Ambulatory Patient Groups (APGs) as well as Coding Guidelines for Hospital-Based Outpatient Services, Emergency Rooms, and Physicians Offices. Different levels of HCPCS as well as outpatient reimbursement issues will be covered. Prerequisite: Health Information Technology 50 or Medical Assisting 71A or equivalent. Strongly recommended: Biology 50 and Health 51B (*both completed with a grade of "C" or higher*). 2 hours. Transfer: CSU.

56B INTERMEDIATE OUTPATIENT CODING 2 UNITS

Ambulatory coding to include all clinical services and practical application of CPT, modifiers, E/M coding and APCs. Includes code assignment and professional audit techniques. Prerequisites: Health Information Technology 50, Health Information Technology 56A, Health Information Technology 57A or equivalent experience. 2 hours. Transfer: CSU.

57A INTRODUCTION TO CODING AND CLASSIFICATION 2½ UNITS

Introduction to medical nomenclatures and classification systems. Basic ICD-9CM coding. Prerequisite: Health Information Technology 50 (*completed with a grade of "C" or higher*). Strongly recommended: Biology 50 and Health 51B (*both completed with a grade of "C" or higher*). 2 hours lecture, 2 hours laboratory. Transfer: CSU.

57B ADVANCED CODING AND REIMBURSEMENT 2½ UNITS

Continuation of Health Information Technology 57A with emphasis on intermediate and advanced ICD-9CM coding and integration of CPT coding, including the use of an encoder. Includes health care reimbursement systems as well as the technical process of abstracting. Prerequisite: Health Information Technology 57A (*completed with a grade of "C" or higher*). Strongly recommended: Biology 50 and 51 B (*both completed with a grade of "C" or higher*). 2 hours lecture, 2 hours laboratory. Transfer: CSU.

59 TOPICS IN QUALITY ASSURANCE 2 UNITS

Investigation of current issues in quality assurance activities in the health care environment. Topics may include but are not limited to managed care activities, JCAHO, NCQA, AAAHC, HEDIS, and Continuous Quality Improvement. Issues in data quality and the role of data quality coordinators will be explored. With the rapid changes in health care, quality activities will increase to assure positive outcomes in a cost effective environment. Prerequisite: Health 53 and Health 54 (*both completed with a grade of "C" or higher*). 2 hours.

60 MANAGEMENT AND ORGANIZATION IN THE HEALTH INFORMATION MANAGEMENT SETTING 3 UNITS

Study of management and supervision in a health information setting. Applications of principles of planning, organizing, actuating and controlling in Health Information settings. Management of human resources in health care organizations, theory and principles. Concepts and practice of developing and utilizing personnel in this environment. Prerequisite: Health Information Technology 50 and 51 (*both completed with a grade of "C" or higher*). 3 hours.

64 TOPICS IN HEALTH INFORMATION 2 UNITS (May be repeated once)

Explore the application of health information theory in the workplace. Prerequisite: Health Information Technology 50, (*completed with a grade of "C" or higher*). 2 hours lecture.

65A CLINICAL PRACTICE I 3 UNITS

Practical experience in the performance of technical duties and supervisory responsibilities in the health information/medical record department. Prerequisite: Health Information Technology 64 (*completed with a grade of "C" or higher*). Corequisite: Health Information Technology 66A. 10-12 hours clinical. Transfer: CSU.

65B CLINICAL PRACTICE II 3 UNITS

Practical experience in the performance of technical duties and supervisory responsibilities in the health information/medical record department. Prerequisite: Health Information Technology 65A (*completed with a grade of "C" or higher*). Corequisite: Health Information Technology 66B. 10-12 hours clinical. Transfer: CSU.

66A CLINICAL PRACTICE SEMINAR I 1 UNIT

Discussion and sharing of clinical practice experiences. Current trends and changes in health information management, as well as the health care industry in general. Prerequisite: Health Information Technology 64 (*completed with a grade of "C" or higher*), completion of vision project. 1 hour. Transfer: CSU.

66B CLINICAL PRACTICE SEMINAR II 1 UNIT

Discussion and sharing of clinical practice experiences. Current trends and changes in health information management, as well as the health care industry in general. Completion of inservice materials and presentation of HIT topic. Prerequisite: Health Information Technology 66A (*completed with a grade of "C" or higher*). Corequisite: Health Information Technology 65B. 1 hour. Transfer: CSU.

67 CODING CLINICAL PRACTICE 1 UNIT
Practical experience in the performance of technical duties regarding the coding and abstractions of health information/medical record department. Prerequisite: Health Information Technology 50 and 57A. 54 total clinical hours.

69 HEALTH INFORMATION REVIEW AND RHIT EXAM PREPARATION 1 UNIT
Comprehensive review of health information concepts and applications for health information technology program graduate. Medical terminology, pathophysiology, health information statistics, filing and indexing concepts, content and documentation requirements, medicolegal concepts, quality assurance, utilization review, management issues, computer applications in health information and coding applications. Test taking techniques and preparation for the national registered health information technician exam will be covered. 1 hour. Transfer: CSU

HISTORY (HIST)

1 HISTORY OF WESTERN CIVILIZATION TO 1600 3 UNITS
Origin and development of civilization in the Mediterranean and its expansion into Europe—the Near East, Greece, Rome and the Middle Ages, Renaissance and the Reformation. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: C2, DG; IGETC: Area 3, 4; AA/AS; (CAN HIST 2); with HIST 2: (CAN HIST SEQ A).

2 HISTORY OF WESTERN CIVILIZATION SINCE 1600 3 UNITS
History of the Modern Western World; Romanticism and the Industrial Revolution to the present. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: C2, D6; IGETC: Area 3, 4; AA/AS; (CAN HIST 4); with HIST 1: (CAN HIST SEQ A).

5 CRITICAL THINKING IN HISTORY 3 UNITS
Develops critical thinking, reading, writing skills and practical logic and reasoning through study of historical method. Emphasis on the techniques and principles of effective written and oral argument in case studies and historical problems. 3 hours. Transfer: CSU, UC; CSU/GE: A3; AA/AS.

7 U.S. HISTORY THROUGH RECONSTRUCTION 3 UNITS
History of the United States from its colonial origins through the end of reconstruction including the United States Constitution. Emphasis on distinctively American patterns of political, economic, social, intellectual and geographic developments. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group A; IGETC: Area 4, AI, Group A; AA/AS; (CAN HIST 8) with HIST 8: (CAN HIST SEQ B).

8 U.S. HISTORY SINCE RECONSTRUCTION 3 UNITS
History of the United States from the post-Civil War period to the present. Emphasis on distinctively American patterns of political, economic, social, intellectual and geographic developments. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group B; IGETC: Area 4, AI, Group B, AI; AA/AS; (CAN HIST 10); with HIST 7: (CAN HIST SEQ B).

12 HISTORY OF CALIFORNIA 3 UNITS
Historical development of California, including Spanish exploration and settlement, the Mexican Revolution and transformation, the American conquest, the Gold Rush and dynamic expansion to the present day. Emphasis on political, economic, and social factors which transformed California from a relatively simple rural society to a highly complex agricultural-industrial system. Analysis of historical issues and current problems. 3 hours. Transfer: CSU, UC; CSU/GE: D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

19 HISTORY OF MODERN CHINA AND JAPAN FROM LATE 19TH TO EARLY 20TH CENTURY 3 UNITS
History and culture of modern China and Japan. Social, political, economic and cultural structures and processes; ideologies and leadership; modernization and development; and selected aspects of regional and international interactions. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

20 AFRICAN AMERICAN HISTORY THROUGH 19TH CENTURY 3 UNITS
Social, historical, economic and political concepts in the African-American experience and the role of African descent in American society and culture. From antecedent 12th century West African culture through New World slavery and the experiences of Blacks in American society to the end of the 19th century. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

21 AFRICAN AMERICAN HISTORY—20TH CENTURY 3 UNITS
Social, historical, economic and political concepts in the African-American experience and the role of African descent in American society and culture. From the late 19th century to the present. Emphasis on contemporary problem, in recent historical context. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

22 INTRODUCTION TO MEXICAN-AMERICAN HISTORY AND CULTURE 3 UNITS
Historical survey of Mexico, the Southwest and California including: Mexico's pre-Columbian past, Spanish colonization, independence and evolution as a nation; Mexico's confrontations with the United States and "Manifest Destiny"; the economic, political and cultural development of the Southwest and California under the United States; the Mexican Revolution and its impact; the political and cultural evolution of Mexican Americans in the twentieth century; and Mexican Americans within the context of United States - Latin American relations. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

25 AMERICAN INDIAN HISTORY AND CULTURE 3 UNITS
Historical survey of American Indians in the United States from earliest times to the present day. Emphasis on Indian societies and cultures, Indian relations with predominant cultures and the Indian movement for self-preservation. Includes the historical background necessary to understand contemporary problems of the Indians, with emphasis on the Indians of California and the West. 3 hours. Transfer: CSU, UC; CSU/GE: D3, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

27 AMERICAN WOMEN: A SOCIAL HISTORY 3 UNITS
American women from a socio-cultural perspective, focusing on the continuous and impressive contributions of American women to the development of United States society. Designed to provide a survey of the role of women in American history from colonial to contemporary times. 3 hours. Transfer: CSU, UC; CSU/GE: D4, D6, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

28 HISTORY OF AMERICAN WEST 3 UNITS
History of the trans-Mississippi West of the United States. Emphasis on Native American history and cultures, European and Anglo-American frontiers, expansion of the United States in the 19th century, and the interaction of Native American, European American, Asian American, and Hispanic American peoples, and the significance of the West in American history. 3 hours. Transfer: CSU, UC.

44 HISTORY OF ENGLAND 3 UNITS
Interpretation and analysis of the development of English institutions; emphasis on constitutional and economic developments. 3 hours. Transfer: CSU, UC; CSU/GE: D6; IGETC: Area 4; AA/AS.

HUMANITIES (HUMN)

DEGREE:

AA– HUMANITIES (GENERAL)

The humanities seek to render an integrative and critical examination of the human achievements in art, literature, philosophy and music. This approach will broaden and enrich the students' appreciation of human values derived from the creative forces as expressed in the arts. Courses offered in this curriculum meet general education and transfer requirements and may be applied to a major in humanities for an Associate in Arts degree.

HUMANITIES (GENERAL)

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR **FALL** **SPRING**

Anthropology 2 (Prehistory and Culture Growth)	3
Art 4 (Art History, Ancient)	3
History 1 (History of Western Civilization to 1600)	3
Humanities 1 (Philosophy-The Sciences-Epic Poetry)	3
Humanities 3 (Film-Drama-Music-Visual Art-Lyric Poetry)	3
Philosophy 1 (God, Nature, Human Nature)	3

SOPHOMORE YEAR **FALL** **SPRING**

Art 5 (Art History, Renaissance to Modern)	3
History 2 (History of Western Civilization Since 1600)	3
Humanities 10 (American Style)	3
Humanities 28 (The Classic Myths) or Humanities 35 (Greek Tragedy)	3
Philosophy 2 (Introduction to Philosophy: Ethics)	3
Philosophy 4 (Introduction to Philosophy: Theory of Knowledge)	3
Total	36

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

Recommended: Natural Science - Astronomy 10

Electives: Should be chosen from as wide a range as possible including areas of the sciences, technical-vocational, performing arts, foreign languages, business and liberal arts.

HUMANITIES (HUMN)

1 PHILOSOPHY–THE SCIENCES–EPIC POETRY **3 UNITS**

Epic literature, the novel moral-social philosophy including writings in science, religion and mythology. Emphasis on analysis and philosophical inquiry. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; AA/AS.

3 FILM – DRAMA – MUSIC – VISUAL ART – LYRIC POETRY **3 UNITS**

Dramatic literature, the theater including filmic art, an introduction into the experience and appreciation of works of musical and visual art and lyric poetry. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; AA/AS.

7 CONTEMPORARY HUMANITIES **3 UNITS**

Visual, literary, and/or musical works of art that reflect the issues and concepts of their time. A perspective through exploration of chosen works. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; AA/AS.

10 THE AMERICAN STYLE **3 UNITS**

Humanities of the United States. Major works of literature, painting, sculpture, architecture, films, music, philosophy, science, religion and political and social institutions. Particular attention to values and meanings that reflect the American cultural experience. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; AA/AS.

28 THE CLASSIC MYTHS **3 UNITS**

Introduction to mythic themes recurring in literature, the visual arts, and music; gods, humans, heroes; their origins, variations, historical development, and full expression in classical times and continued presence in the arts. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; IGETC: Area 3; AA/AS.

30 RELIGION IN CONTEMPORARY CULTURE **3 UNITS**

Attitudes and beliefs about religion evidenced in contemporary culture through contemporary social life, politics, art, music, literature, drama, and film. Place, function, and role of religion in contemporary life against the backdrop of traditional and contemporary theories about religion. 3 hours . Transfer: CSU; CSU/GE: C2; AA/AS.

35 GREEK TRAGEDY **3 UNITS**

Selected tragedies of Aeschylus, Sophocles and Euripides; particular attention given to values and meanings characteristic of aesthetic perception, philosophic content, and historic perspective; recovery and integration of these values as a humanistic approach to Greek tragedy. 3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; IGETC: Area 3; AA/AS.

40 INTRODUCTION TO OPERA **1-3 UNITS**

A general introduction to Opera that corresponds to current local productions including the San Francisco International Opera season. Analysis of selected major operatic masterpieces with emphasis on how the libretto, the music, and the theatrical presentation contribute to the total dramatic experience. Opera attendance will be encouraged. Technical knowledge of music is not required. 1-3 hours. Transfer: CSU, UC; CSU/GE: Arts C2; AA/AS.

45 NARRATIVE FILM MUSIC **4 UNITS**

Function of music in cinema. Contributions of classical, popular, and folk composers to the art of filmmaking and the influence of film music on the general culture of our time. 4 hours. Transfer: CSU, UC; CSU/GE: Arts C2; IGETC: Area 3; AA/AS.

INDUSTRIAL TECHNOLOGY (INDT)

DEGREE:

AS – INDUSTRIAL TECHNOLOGY

INDUSTRIAL TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR FALL SPRING

Business 12 (Introduction to Business)	3
Computer Application Systems 50 (Introduction to Computer Application Systems) . . .	3
Design Technology 50 (Mechanical Drafting for Non-Majors)	2
Industrial Technology 61 (Manufacturing Processes)	2
Mathematics 36 (Trigonometry) or Mathematics 37 (Trigonometry with an Emphasis on its Geometric Foundations Workshop)	3-5
Welding Technology 70 (Introduction to Welding)	2

SOPHOMORE YEAR FALL SPRING

Business 1A (Principles of Accounting 1)	4
Computer Science 10 (Introduction to Programming Using Visual BASIC)	4
Electronics and Computer Technology 70 (Introduction to Electronics)	2½
Business 1B (Principles of Accounting II)	4
Business 10 (Business Law)	4
Total	33½-35½

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

General Education Suggestions: Chemistry 30A-30B, Economics 1, Mathematics 1, Physics 2A-2B. This program is intended for technical career majors and is not designed for transfer to four-year institutions.

This course listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

INDUSTRIAL TECHNOLOGY (INDT)

61 MANUFACTURING PROCESSES 2 UNITS

Examination of machine shop, welding and general manufacturing processes; practice in the use of hand tools, basic machine tools and welding equipment; understanding the relationship between manufacturing processes and design. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

74 MEASUREMENTS AND CALCULATIONS 3 UNITS

Calculator techniques for whole number and decimal arithmetic problem solving, fraction decimal conversion, percentages, ratio and proportion, algebra, geometry, areas and volumes, English metric conversion, and numerical trigonometry as applied in the industry. 3 hours. Transfer: CSU; AA/AS.

INSPECTION (INSP)

The Inspection Program is currently suspended until further notice.

**INTERDISCIPLINARY STUDIES
IN LETTERS AND SCIENCE (ISLS)**

**INTERDISCIPLINARY STUDIES IN LETTERS
AND SCIENCE (ISLS) 37 UNITS**

A three-semester interdisciplinary program that allows students to explore important books and ideas in the humanities, mathematics, and the social and natural sciences as part of a learning community. **(Students may enter ISLS in any of its three semesters with approval of ISLS staff.)** Students meet with instructors in small discussion groups and colloquia to investigate some of the creative thinking that has shaped civilizations. ISLS emphasizes intellectual growth and personalized instructions, while allowing students to satisfy most GE transfer requirements. (ALL GE lower division requirements may be completed by ISLS students with the addition of several recommended classes taken along with the program.)

**1A INTERDISCIPLINARY STUDIES IN LETTERS
AND SCIENCE 12 UNITS**

Humanities 28, Mathematics 12, Political Science 1, Philosophy 1. 12 hours. Transfer: CSU, UC.

**1B INTERDISCIPLINARY STUDIES IN LETTERS
AND SCIENCE 12 UNITS**

English 1A (Prerequisite: English 101B, 102, or appropriate skill level demonstrated through English assessment process), Anthropology 1, Political Science 25, History 1. 12 hours. Transfer: CSU, UC.

**1C INTERDISCIPLINARY STUDIES IN LETTERS
AND SCIENCE 13 UNITS**

English 4 (Prerequisite: English 1A completed with a grade of "C" or higher), Creative Arts 10, Astronomy 10, History 2, Anthropology 1L or Astronomy 30. 12 hours lecture, 3 hours laboratory. Transfer: CSU, UC.

INTERIOR DESIGN (INTD)

DEGREE:

AS – INTERIOR DESIGN

**CERTIFICATE OF ACHIEVEMENT:
INTERIOR DESIGN**

This two-year diploma program prepares students to design commercial, office, retail, institutional and residential solutions to real design problems. The program emphasizes space planning, creative problem-solving, communication skills, knowledge of building materials and construction, furnishings, presentation, conventional and computer-aided drafting, and the history of design.

INTERIOR DESIGN
ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Interior Design 50 (Residential Space Planning)	3	
Interior Design 52 (History of Interiors and Furnishings)	3	
Interior Design 54 (Principles of Interior Design)	3	
Interior Design 55 (Introduction to Textiles)	3	
Art 10 (Design and Materials)	3	
Art 11 (Design, Materials, and Color)	3	

SOPHOMORE YEAR	FALL	SPRING
Interior Design 56 (Professional Practices)	3	
Interior Design 58 (Fundamentals of Lighting)	3	
Interior Design 60 (Materials and Resources)	3	
Interior Design 62 (Kitchen and Bathroom Design)	3	
Interior Design 66 (Special Needs Design)	3	
Architecture 62 (Home Design and Construction Technology)	2	
Interior Design 68 (AutoCAD for Architecture and Interior Design)	3	
Total		38

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

INTERIOR DESIGN
CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Interior Design 50 (Residential Space Planning)	3	
Interior Design 52 (History of Interiors and Furnishings)	3	
Interior Design 54 (Principles of Interior Design)	3	
Interior Design 56 (Professional Practices)	3	
Interior Design 58 (Fundamentals of Lighting)	3	
Interior Design 55 (Introduction to Textiles)	3	
Interior Design 60 (Materials and Resources)	3	
Interior Design 68 (AutoCAD for Architecture and Interior Design)	3	
Art 10 (Design and Materials)	3	
Art 11 (Design, Materials, and Color)	3	
Electives*	3	
Total		33

*Interior Design 62 (Kitchen and Bathroom Design)
Interior Design 66 (Special Needs Design)

INTERIOR DESIGN (INTD)

31A PHOTOSHOP I **1 1/2 UNITS**
(See also Architecture 31A, Art 31A, Photography 31A)

Introduction to the use of PhotoShop, the premiere imaging software. Overview of the PhotoShop interface, tools and menus. Projects will focus on using basic tools to compose images. Topics include file management, selections and paths, layers, masks, alpha channels, color management and mapping, digital painting and brushes. Apple Mac platform. May not receive credit if Architecture 31A, Art 31A, or Photography 31A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

31B PHOTOSHOP II **1 1/2 UNITS**
(See also Architecture 31B, Art 31B, Photography 31B)

Continuation of the content and skills introduced in Interior Design 31A, PhotoShop I. Topics include advanced layer controls, filters, distortion and effects, drawing path tools, alpha channels, and applying text to images. Color management and Mapping. Printing fundamentals. Prerequisite: Interior Design 31A (completed with a grade of "C" or higher). May not receive credit if Architecture 31B, Art 31B, or Photography 31B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32A ILLUSTRATOR I **1 1/2 UNITS**
(See also Architecture 32A, Art 32A, Photography 32A)

Introduction to the use of Illustrator, Adobe's powerful vector-based software for digital illustration. Emphasis on the basics of drawing with the shapes, pen and pencil, transformation and liquify tools. Palettes for the control of layers, colors, patterns and gradients. Methods for the creative application of text to images. May not receive credit if Architecture 32A, Art 32A, or Photography 32A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32B ILLUSTRATOR II **1 1/2 UNITS**
(See also Architecture 32B, Art 32B, Photography 32B)

Continuation of the content and skills introduced in Interior Design 32A, Illustrator I. Paintbrush and pattern tools and palettes, gradient mesh tools, creating and modifying clipping masks will be covered. Exploration of the powerful morphing blends and transparency tools use of symbol tools and palettes, filters and effects, and related appearance and styles palettes. Process of importing and manipulating images as elements of digital compositions. Prerequisite: Interior Design 32A (completed with a grade of "C" or higher). May not receive credit if Architecture 32B, Art 32B, or Photography 32B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

33 3-D MODELING WITH FORM•Z **3 UNITS**
(See also Architecture 33, Art 33, Photography 33)

Introduction to 3-dimensional digital modeling using Form•Z software. Emphasis on learning basic commands to create 3-dimensional objects including building interiors and exteriors, and defining photo-realistic views with appropriate light sources. May not receive credit if Architecture 33, Art 33 or Photography 33 has been completed. 2 hours lecture, 4 hours studio. Transfer: CSU.

50 RESIDENTIAL SPACE PLANNING **3 UNITS**

Basic techniques in planning space for interiors. Private and group living spaces, support systems, functional planning of interior space, and color in space planning. 2 hours lecture, 3 hours laboratory. Transfer: CSU.

52 HISTORY OF INTERIORS AND FURNISHINGS **3 UNITS**

A survey of the history of interiors and furnishings from Egyptian period to the present. Emphasis on furniture styles and ornamentation. 3 hours.

54 PRINCIPLES OF INTERIOR DESIGN **3 UNITS**

Elements and principles of design as they apply to interior design. Emphasis on the use of color and texture in the selection of home furnishings. 2 hours lecture, 3 hours laboratory. Transfer: CSU.

55 INTRODUCTION TO TEXTILES **3 UNITS**
 Introduction to textiles in the apparel and home furnishing market. Includes identification structure, and properties of fibers and yarns. Consideration of fabric design, both structural and decorative, fabric performance, labeling, and legal regulations covering textiles and apparel. 3 hours.

56 PROFESSIONAL PRACTICES **3 UNITS**
 Interior design practices including business and marketing aspects, wholesale resource development, design presentation and career preparation, contractual obligations. 3 hours.

58 FUNDAMENTALS OF LIGHTING **3 UNITS**
 Residential and commercial lighting systems as they apply to what constitutes a well-lit interior space. Includes an investigation of current lighting fixtures and lighting resources. 3 hours.

60 MATERIALS AND RESOURCES **3 UNITS**
 Survey of residential and commercial interior furnishings with attention to product knowledge of furniture, textiles, ceramics, glass, metals, plastics and composite materials. Skills needed to perform related activities. Strongly recommended: Interior Design 55. 3 hours.

62 KITCHEN AND BATHROOM DESIGN **3 UNITS**
 Survey of the field of kitchen and bathroom designs. Includes resources, materials, trends, costs and needs, both functional and aesthetic. Strongly recommended: Interior Design 10. 2 hours lecture, 3 hours laboratory.

64 VISUAL MERCHANDISING **3 UNITS**
 Introduction to modern display techniques, equipment, and materials. Basics of design and decoration for windows and interior displays in department and specialty stores. Analysis of current display methods as they apply to creating a store's image. 2 hours lecture, 3 hours laboratory.

66 SPECIAL NEEDS DESIGN **3 UNITS**
 Design of interior space which encourages self-esteem and independence for the elderly or physically impaired. American Disabilities Act and its requirements for commercial buildings. Residential housing that satisfies the special needs of its inhabitants and improvement of existing interiors through barrier-free retrofitting. 3 hours.

68 AUTOCAD FOR ARCHITECTURE AND INTERIOR DESIGN **3 UNITS**
(May be repeated 3 times) (See also Architecture 68)
 Introduction to computer-aided drafting using AutoCAD. Topics include command basics including drawing entity creation and modification, industry layering standards, text and dimensioning systems appropriate to architecture, creating symbol libraries, external reference techniques, model and paper space commands, and plotting techniques. (May not receive credit if Architecture 68 has been completed.) 2 hours lecture, 4 hours studio. Transfer: CSU.

95 INTERIOR DESIGN WORK EXPERIENCE **1-3 UNITS**
(May be repeated 3 times)
 College supervised on-the-job work experience and training in an interior design related business. Students, through the cooperation of an on-the job supervisor, contract to accomplish new learning objectives or broaden experiences in the work place. Corequisite: Interior Design 96. 5-15 hours of paid employment per week or 4-12 hours of volunteer work per week.

96 INTERIOR DESIGN WORK EXPERIENCE SEMINAR **1 UNIT**
(May be repeated 3 times)
 Focal point for the coordination of curriculum with college-supervised part-time or full-time employment in the interior design field. Case studies, job-related problems, student cases and presentations, and material related to employment organizations and management; emphasis on building strong working relationships with supervisors, subordinates, and coworkers. Corequisite: Interior Design 95. 1 hour.

◊Refer to page 14 for program requirements.

INTERNATIONAL STUDIES

DEGREE:
AA – INTERNATIONAL STUDIES

INTERNATIONAL STUDIES
 TRANSFER PROGRAM AND
 ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Anthropology 3 (Social and Cultural Anthropology) . . . 3		
Foreign Language* 5 5		
Option Courses** 2-5 2-5		

SOPHOMORE YEAR	FALL	SPRING
Geography 2 (Cultural Geography) 3		
Political Science 30 (International Relations) 3		
Option Courses** 2-5 2-5		
Electives 3-4 3-4		
Total	29-37	

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60***

* Select from foreign languages listed on pages 77-80.
 ** Select one of the following option areas. Complete 18 units from the courses listed for the option selected.

- (1) **Asian Studies Option:** History 19 (East Asian History and Culture), Japanese 50A,B, C (Conversational Japanese: Note—May be taken only to complete the option requirement, not the foreign language requirement), Anthropology 5 (Cultural Pluralism in Modern Culture), Political Science 20 (Comparative Government) Religious Studies 1 (Religions of the World), Economics 1 and/or 2 (Principles of Economics: Micro and Macro), Speech 1 (Fundamentals of Speech).
- (2) **Latin American Studies Option:** History 22 (Introduction to Mexican American History and Culture), Spanish 2A,B (Intermediate and Advanced Spanish), Anthropology 5 (Cultural Pluralism in Modern Culture), Economics 1 and/or 2 (Principles of Economics: Micro and Macro), Political Science 20 (Comparative Government), Speech 1 (Fundamentals of Speech), Portuguese 50A,B,C, (Conversational Portuguese Note—May be taken only to complete the option requirement, not the foreign language requirement).
- (3) **Business Option:** Business 1A/1B (Principles of Accounting), Business 10 (Business Law), Computer Science 10 or Computer Application/information Systems 50 (Introduction to Computer Information Systems), Business 12 (Introduction to Business), Business 17 (Business Ethics), Business 40 (International Business), Economics 1 and/or 2 (Principles of Economics), Speech 1 (Fundamentals of Speech).
- (4) **General Studies Option:** 2nd year of foreign language, Anthropology 5 (Cultural Pluralism in Modern Culture), Economics 1 and/or 2 (Principles of Economics: Micro and Macro), Religious Studies 1 (Religions of the World) Business 12 (Introduction to Business), Business 40 (International Business), Political Science 20 (Comparative Government), Speech 1 (Fundamentals of Speech).

This program is intended to prepare students for direct job entry. While units in the program are transferable to many institutions, students should consult a counselor for specific transfer information.

INTERNATIONAL STUDIES

7 TRAVEL STUDY: (SITE) 1-5 UNITS
(May be repeated 3 times)
 Study and research of the culture, mores, history and unique characteristics of selected locales. Visits to specific sites nationally or internationally. May be offered under any catalog heading 1-15 hours. Transfer: CSU.

ITALIAN

(See Foreign Languages)

JAPANESE

(See Foreign Languages)

JOURNALISM

DEGREE:
AA – JOURNALISM

Students who complete this degree will be able to transfer to a university or enter the local job market. Many new jobs in electronic information management are being created. These supplement existing jobs in newspapers and magazines as well as public relations and media. In this program, students will gain hands-on experience with all aspects of gathering, organizing and disseminating information.

JOURNALISM
 ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 40 (Graphic Design Principles)	3	
Mass Communications 1 (Journalism: News Writing and Information Gathering)	3	
Mass Communications 5 (Introduction to Mass Communications)	3	
Mass Communications 2 (Journalism: Investigative News Writing)	3	
Mass Communications 14 (Writing and Photography for a Weekly Publication)	1	
Photography 50 (Introduction to Photography)	3	
SOPHOMORE YEAR	FALL	SPRING
English 7 (Critical Thinking and Writing Across Disciplines)	3	
Mass Communications 3 (Journalism: Magazine and Newspaper Feature Writing)	3	
Mass Communications 15 (Publications: Editorial Leadership and Production)	3	
Mass Communications 71 (Beginning Photojournalism)	2	
Photography 65 (Graphic Techniques)	3	
Total		30

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

LIBERAL STUDIES

DEGREE:
AA – LIBERAL STUDIES

The Associate of Arts in Liberal Studies is designed for students who desire the benefits of a general college education. Many employers and professional schools prefer graduates who possess the diverse background provided by this major.

There are three options associated with this degree: Option I leads to an Associate Degree and the opportunity to pursue a “major” of at least 18 units that is designed to meet personal, vocational, or other academic needs. Option II is designed for students who plan to transfer to the California State University system and want to complete the CSU General Education requirements for Certification. Option III is designed for students who are unsure if they will transfer to a UC or CSU institution and wish to complete the Intersegmental General Education Transfer Curriculum (IGETC).

LIBERAL STUDIES
 ASSOCIATE IN ARTS DEGREE

The Associate in Arts in Liberal Studies is designed for students who wish a broad knowledge of liberal arts and sciences. This flexible major can be taken by students who wish to earn a general associate degree or plan to transfer.

CORE COURSES **UNITS**

- Choose ONE option below:
- OPTION I— SELECTED STUDIES***
 Minimum Units Required for the Major 18
- OPTION II—(CSU/GEB)****
 Minimum Units Required for the Major 33-39
 Complete all CSU/GEB Certification requirements.
- OPTION III—IGETC (UC or CSU)*****
 Minimum Units Required for the Major 34-37
Complete all IGETC (UC or CSU Certification requirements).

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

** OPTION I — is designed especially for those students who desire the benefits of a general college education and the opportunity to pursue a “major” of at least 18 units that is designed to meet personal, vocational or other academic needs.*

****OPTION II** — (CSU/GEB) is designed for students who plan to transfer to the California State University system and want to complete the CSU General Education Breadth requirements for Certification. The student will select courses that conform to the CSU General Education Breadth requirements, A-E and American Institutions.

*****OPTION III** — (IGETC/UC or CSU) is designed for students who are unsure if they will transfer to a UC or CSU institution. Students who complete Option III will satisfy Certification requirements for the Intersegmental General Education Transfer Curriculum (IGETC). (Exceptions: IGETC is NOT advisable for all transfer students to the UC system. See a counselor for assistance in determining if IGETC (Option III) is right for you.)

Note: There are important differences between the three OPTIONS. The student is strongly advised to consult with a counselor for assistance.

LIBRARY STUDIES (LIBR)

1 LIBRARY SKILLS

1 UNIT

Introduction to techniques of library research including development of a search strategy, location and evaluation of material in a variety of sources and formats, including the Internet, and preparation of a Works Cited list. Self-paced or Classroom-based. 1 hour Transfer: CSU, UC.

3 INTERNET SKILLS

1 UNIT

Retrieval and evaluation of information on the Internet. Exploration of Web browsers and search tools, and use of e-mail. Strongly recommended: Computer Application Systems 70 or 72A or 72B or 72C or equivalent. 1 hour. Transfer: CSU; AA/AS.

MACHINE TOOL TECHNOLOGY (MTT)

DEGREE:

AS – MACHINE TOOL TECHNOLOGY

AS – NUMERICAL CONTROL

CERTIFICATE OF ACHIEVEMENT:

MACHINIST

NUMERICAL CONTROL PROGRAMMER

(MACHINIST)

TOOL MAKER

The Machinist one-year certificate program is designed to train students in the operation of a variety of precision metal removal tools, from small hand tools to machine tools such as: drill presses, lathes, milling machines, and grinders. Graduates acquire basic skills to setup and operate all standard machine tools and machine parts from blueprint specifications. Graduates are also introduced to computerized numerical control (CNC) machines. In addition, students learn basic hand skills including general machining techniques required to setup and operate all standard machine tools for the manufacture of parts from blueprint specifications.

The Tool Maker two-year program is designed to train students for a tool and die making career. Graduates are trained in tool and die making, computerized numerical control (CNC) machining, computer-aided manufacturing, computer-aided drafting and design, and are capable of learning new skills with minimum instruction. Students are expected to have an appreciation of precise work and a desire to observe the progression of complex parts.

Students use a variety of computer software applications to draw, design, and program CNC machines, and application work focuses on jigs, fixtures, and punch and die work.

Numerical Control is a system (sometimes referred to as CAM—Computer-Aided Manufacturing) using specially prepared instructions, developed by the N/C Programmer, to control the operation of various manufacturing equipment such as machine tools, inspection machines, woodworking machines, laser machines, and robots.

MACHINE TOOL TECHNOLOGY

ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Design Technology 50		
(Mechanical Drafting for Non-Majors)	2	
Industrial Technology 74*		
(Measurements and Calculations)		3
Machine Tool Technology 60A		
(Machine Tool Technology I)	4	
Machine Tool Technology 60B		
(Machine Tool Technology II)		4
Welding Technology 70		
(Introduction to Welding)	2	
SOPHOMORE YEAR	FALL	SPRING
Machine Tool Technology 65 (Production Practices) . . .	4	
Machine Tool Technology 66 (Basic Toolmaking)		4
Machine Tool Technology 71A		
(Numerical Control Programming I)	4	
Machine Tool Technology 71B		
(Numerical Control Programming II)		4
Total		31

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

**Satisfies Mathematics requirement for graduation.*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

NUMERICAL CONTROL
ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR		FALL	SPRING
Design Technology 50 (Mechanical Drafting for Non-Majors)	2		
Industrial Technology 74* (Measurements and Calculations)	3		
Machine Tool Technology 60A (Machine Tool Technology I)	4		
Machine Tool Technology 60B (Machine Tool Technology II)	4		
Machine Tool Technology 71A (Numerical Control Programming I)	4		
Machine Tool Technology 71B (Numerical Control Programming II)	4		
SOPHOMORE YEAR		FALL	SPRING
Machine Tool Technology 65 (Production Practices)	4		
Machine Tool Technology 66 (Basic Toolmaking)	4		
Machine Tool Technology 81A (Computer Part Programming I)	3		
Machine Tool Technology 81B (Computer Part Programming II)	3		
Total	35		
General Education Courses			
For specific General Education courses refer to catalog section on Graduation Requirements.			
Total minimum units required	60		

**Satisfies Mathematics requirement for graduation.*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

**Or equivalent.*

MACHINIST
CERTIFICATE OF ACHIEVEMENT

CORE COURSES		FALL	SPRING
Machine Tool Technology 60A (Machine Tool Technology I)	4		
Machine Tool Technology 60B (Machine Tool Technology II)	4		
Machine Tool Technology 63A (Individual Projects)	2		
Machine Tool Technology 63B (Advanced Individual Projects)	2		
Machine Tool Technology 71A (Numerical Control Programming I)	4		
Machine Tool Technology 71 B (Numerical Control Programming II)	4		
Welding Technology 70 (Introduction to Welding)	2		
Design Technology 50 (Mechanical Drafting for Non-Majors)	2		
Industrial Technology 74 (Measurements and Calculations)	3		
Total	27		

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

NUMERICAL CONTROL PROGRAMMER
(MACHINIST)

CERTIFICATE OF ACHIEVEMENT

FRESHMAN YEAR		FALL	SPRING
Design Technology 50 (Mechanical Drafting for Non-Majors)	2		
Industrial Technology 74 (Measurements and Calculations)	3		
Machine Tool Technology 60A (Machine Tool Technology I)	4		
Machine Tool Technology 60B (Machine Tool Technology II)	4		
Machine Tool Technology 71A (Numerical Control Programming I)	4		
Machine Tool Technology 71B (Numerical Control Programming II)	4		
SOPHOMORE YEAR		FALL	SPRING
Machine Tool Technology 65 (Production Practices)	4		
Machine Tool Technology 66 (Basic Toolmaking)	4		
Machine Tool Technology 81A (Computer Part Programming I)	3		
Machine Tool Technology 81B (Computer Part Programming II)	3		
Total	35		

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

TOOL MAKER
CERTIFICATE OF ACHIEVEMENT

CORE COURSES		FALL	SPRING
Machine Tool Technology 60A (Machine Tool Technology I)	4		
Machine Tool Technology 60B (Machine Tool Technology II)	4		
Machine Tool Technology 65 (Production Practices)	4		
Machine Tool Technology 66 (Basic Toolmaking)	4		
Industrial Technology 74 (Measurements and Calculations)	3		
Machine Tool Technology 71A (Numerical Control Programming I)	4		
Machine Tool Technology 71B (Numerical Control Programming II)	4		
Welding Technology 70 (Introduction to Welding)	2		
Design Technology 50 (Mechanical Drafting for Non-Majors)	2		
Total	31		

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

MACHINE TOOL TECHNOLOGY (MTT)

60A MACHINE TOOL TECHNOLOGY I **4 UNITS**
(May be repeated 3 times)

Introduction to machine tool operations relating to precision measuring tools, layout methods, screw threads, benchwork, drill presses, bandsaws, basic lathe and vertical milling operations, and evaluation of job opportunities. Emphasis on safe and correct use of hand and machine tools. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

60B MACHINE TOOL TECHNOLOGY II **4 UNITS**
(May be repeated 3 times)

Continuation of Machine Tool Technology 60A. Theory and laboratory practice relating to advanced lathe and milling machine operations, gear cutting, steel and heat treating, basic surface and cylindrical grinding, and introduction to metric measurement. Emphasis on correct machine tool setups and quality of project work are stressed. Prerequisite: Machine Tool Technology 60A. Strongly recommended: Industrial Technology 74. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

63A INDIVIDUAL PROJECTS **2 UNITS**
(May be repeated 3 times)

Design, development, and fabrication of selected projects for the machine tool technology major to develop special entry level job skills. Corequisite: Machine Tool Technology course. 6 hours laboratory.

63B ADVANCED INDIVIDUAL PROJECTS **2 UNITS**
(May be repeated 3 times)

Continuation of Machine Tool Technology 63A. Selected projects to provide certain specialized skills required for job updating, job advancement, or skill specialization. Corequisite: Machine Tool Technology course. 6 hours laboratory.

65 PRODUCTION PRACTICES **4 UNITS**
(May be repeated 3 times)

Introduction to design and fabrication of production-type toolings such as jigs, fixtures, and gauges as applied in industry. Emphasis on tool design practices, fabrication techniques, set-up procedures, and inspection of production parts. Prerequisite: Machine Tool Technology 60B. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

66 BASIC TOOLMAKING **4 UNITS**

Toolroom grinding, precision measurement, jig boring, steels and heat treating, carbide cutting tools, job estimating, and basic die-making theory. Prerequisite: Machine Tool Technology 65. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

70 INTRODUCTION TO MACHINE SHOP **2 UNITS**

Introduction to machine shop practice. Includes measuring tools, benchwork screw threads, drill presses, lathes, and vertical milling machine operations. Safe and correct use of machine tools. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

71A NUMERICAL CONTROL PROGRAMMING I **4 UNITS**
(May be repeated 3 times)

Introduction to programming and operating three-axis computer numerical controlled drilling and milling machines. Instruction includes the standard X-Y-Z Cartesian coordinate system, manual and automatic milling machine operation, absolute and incremental positioning, tape coding and preparation, and fabrication of basic and intermediate three-axis drill and mill parts. Prerequisite: Computer Science 8 or Computer Application Systems 8. Strongly recommended: Industrial Technology 74 (may be taken concurrently). 2 hours lecture, 6 hours laboratory. Transfer: CSU.

71B NUMERICAL CONTROL PROGRAMMING II **4 UNITS**
(May be repeated 3 times)

Continuation of Machine Tool Technology 71A. Advanced programming of three-axis computer numerical controlled drilling and milling machines and basic programming and operation of numerical controlled lathes. Includes advanced contour milling, and basic lathe programming involving constant surface speeds, tool selection, work surface programming, internal and external turning, and threading. Prerequisite: Machine Tool Technology 71A. 2 hours lecture, 6 hours laboratory. Transfer: CSU.

81A COMPUTER PART PROGRAMMING I **3 UNITS**
(May be repeated 3 times)

Introduction to computer-assisted part programming numerical controlled drilling and milling machines. Includes theory and laboratory practice on the use of computer terminals, graphic plotters, tape punches, and high speed printers for processing and debugging computer-assisted part programs. Prerequisite: Machine Tool Technology 71B. 2 hours lecture, 3 hours laboratory.

81B COMPUTER PART PROGRAMMING II **3 UNITS**
(May be repeated 3 times)

Continuation of Machine Tool Technology 81A. Writing computer-assisted part programs for advanced milling applications and basic turning center (lathes) operations. Includes computer terminals, graphic plotters, tape punches, and high speed printers for processing and debugging computer assisted part programs. Prerequisite: Machine Tool Technology 81A. 2 hours lecture, 3 hours laboratory.

MASS COMMUNICATIONS (MCOM)

AA – MASS COMMUNICATIONS

In pursuing this degree, students will gain knowledge and hands-on experience in radio, television, and print journalism. They will be able to transfer to a university program using their knowledge and experience or seek job entry in one of the media fields.

MASS COMMUNICATIONS ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Mass Communications 5		
(Introduction to Mass Communications)	3	
Mass Communications 31		
(Introduction to Broadcasting)	3	
Mass Communications 1 (Journalism:		
Newswriting and Information Gathering)	3	
Mass Communications 3 (Journalism:		
Magazine and Newspaper Feature Writing)	3	
Mass Communications 35 (Writing for Broadcasting)	3	
Photography 50 (Introduction to Photography)	3	

	FALL	SPRING
SOPHOMORE YEAR		
Business 34 (Introduction to Advertising)	3	
Mass Communications 15 (Publications: Editorial Leadership and Production)	3	
Mass Communications 33A (Introduction to Television Studio Techniques)	3	
Mass Communications 32 (Radio and Television Announcing/Performance)	3	
Mass Communications 33B (Intermediate Television Studio Techniques)	3	
Art 60 (Advertising Production)	3	
Mass Communications Option*	3	
Total	39	

General Education Courses
 For specific General Education courses refer to catalog section on
 Graduation Requirements.
Total minimum units required **60**

**Any course in Mass Communications.*

MASS COMMUNICATIONS (MCOM)

- 1 JOURNALISM: NEWSWRITING AND INFORMATION GATHERING 3 UNITS**
 Fundamentals of reporting and newswriting to develop ability to investigate, organize, write and rewrite according to professional standards of print journalism. Analysis of exemplary journalistic models. Conceive, research and write stories, using traditional news values. Requires source interviews or original research. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU; (CAN JOUR 2).
- 2 JOURNALISM: INVESTIGATIVE NEWS WRITING 3 UNITS**
 News and feature writing, emphasizing investigative reporting, research techniques and story presentation. 3 hours. Transfer: CSU.
- 3 JOURNALISM: MAGAZINE AND NEWSPAPER FEATURE WRITING 3 UNITS**
 Feature writing, freelance journalism and how to get published in newspapers and magazines. 3 hours. Transfer: CSU.
- 5 INTRODUCTION TO MASS COMMUNICATIONS 3 UNITS**
 History of the press and mass media; the political, social and economic impact of the press on government and public opinion. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU, UC; CSU/GE: D7; (CAN JOUR 4).
- 6 "WWW.MASS.COM": READING AND CREATING THE WEB 2 UNITS**
 Fundamentals of Web design and Web presentation according to evolving standards, both technical and content-based. Place of the web in mass communications in American society. Creation of web-pages and sites using traditional presentation standards as well as evolving digital ones. Online on issues of technology, design, content, law, ethics, advertising and culture of the Internet. Web text analysis. New computer and communication technologies. This course is conducted entirely online. 2 hours. Transfer: CSU; AA/AS.
- 8 ADVERTISING SALES AND MEDIA MANAGEMENT 4 UNITS**
 Introduction to broadcast advertising sales from research through the sales presentation to the airing of the commercial campaign. Broadcast and cable station managerial objectives, procedures and problems pertaining to daily operations; and the managerial perspective of individual departments within the broadcast and cable station. 4 hours. Transfer: CSU; AA/AS.

- 14 WRITING AND PHOTOGRAPHY FOR A WEEKLY PUBLICATION 1 UNIT**
(May be repeated 3 times)
 Journalism and photojournalism, content development/production for the weekly college newspaper. 3 hours laboratory.
- 15 PUBLICATIONS – EDITORIAL LEADERSHIP AND PRODUCTION 3 UNITS**
(May be repeated 3 times)
 Production of the college newspaper, including instruction and experience in writing, business management, graphic arts, leadership and editing. Strongly recommended: Eligibility for English 1A. 1 hour lecture, 6 hours production. Transfer: CSU.
- 31 INTRODUCTION TO BROADCASTING 3 UNITS**
 Radio and television from the earliest years to the present as well as the public's role in broadcasting. Social, ethical, regulatory, and economic facets of the industry. 3 hours. Transfer: CSU; AA/AS.
- 32 RADIO AND TELEVISION ANNOUNCING/ PERFORMANCE 3 UNITS**
 Projection of personality, voice control and pronunciation necessary for communication of ideas in broadcasting under simulated studio circumstances. 3 hours. Transfer: CSU; AA/AS.
- 33A INTRODUCTION TO TELEVISION STUDIO TECHNIQUES 3 UNITS**
 Introduction to studio practices. Hands-on experience in television studio operations, control room procedures, and basic program production. 2 hours lecture, 3 hours laboratory. Transfer: CSU.
- 33B INTERMEDIATE TELEVISION STUDIO TECHNIQUES 3 UNITS**
(May be repeated 3 times)
 Further experience in television studio operations, control room procedures, and program production. Designed to improve skills in operating television equipment, and producing and directing TV programs. Strongly recommended: Mass Communications 33A. 2 hours lecture, 3 hours laboratory. Transfer: CSU.
- 34 RADIO STUDIO TECHNIQUES 3 UNITS**
 Operational procedures and practices in a modern radio broadcast studio. Emphasis on production aspects including editing and announcing, station operations and commercial radio programming. Strongly recommended: Mass Communications 31. (May be taken concurrently.) 3 hours lecture, 1 hour laboratory. Transfer: CSU.
- 35 WRITING FOR BROADCASTING 3 UNITS**
 Techniques of writing for radio and television; including script writing and discussion of professional and student scripts, with emphasis on commercials; and underwriting announcements, public service announcements, news and program introductions. Strongly recommended: Eligibility for English 1A or 52A, and completion of Mass Communications 31. 3 hours. Transfer: CSU.
- 38 SPECIAL PROJECTS IN RADIO 2 UNITS**
(May be repeated 3 times)
 Practical experience in radio programming including music, audio production techniques, promotions, news, live sports, and underwriting sales. Experience in broadcast operation of KCRH-FM. Prerequisite: Mass Communications 34 (completed with a grade of "C" or higher). 1 hour lecture, 3 hours laboratory. Transfer: CSU.
- 39 SPECIAL PROJECTS IN TELEVISION 3 UNITS**
(May be repeated 3 times)
 Practical experience in television production and programming. Strongly recommended: Mass Communications 33A. 2 hours lecture, 3 hours laboratory. Transfer: CSU.

40 RADIO THEATER

3 UNITS

(See also Speech 40.)

Performance and production techniques of Radio Theater. Emphasis on vocal characterization, microphone techniques and script adaptation. Includes results in a total theater production to be broadcast locally. (May not receive credit if Speech 40 has been completed.) 3 hours. Transfer: CSU.

71 BEGINNING PHOTOJOURNALISM

2 UNITS

(See also Photography 71.)

Photojournalism as a medium of mass communications. Application of basic technical and visual skills in the making of successful reportage photographs. Consideration of the work of major 20th century photojournalists. Strongly recommended: Photography 50 or Mass Communications 14 with emphasis in photography (completed with a grade of "C" or higher). (May not receive credit if Photography 71 has been completed.) 1 hour lecture, 3 hours laboratory. Transfer: CSU.

MATHEMATICS (MATH)

DEGREE:

AA – MATHEMATICS

Mathematics and related subjects play important dual roles in our culture. On the one hand, mathematics is a study in its own right; on the other hand it is an indispensable tool for expressing and understanding ideas in the sciences, engineering, and an increasing number of other fields.

MATHEMATICS

TRANSFER PROGRAM AND
ASSOCIATE IN ARTS OR

*ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR

FALL SPRING

Mathematics I (Calculus I)	5
Mathematics 2 (Calculus II)	5
Choose at least one other course from the following	3-5
Computer Science 15 (Object-Oriented Programming Methods in C++)	
Computer Science 20 (Introduction to Data Structures in C++)	
Computer Science 21 (Computer Organization and Assembly Language Programming)	
Engineering 35 (Statics)	
Engineering 44 (Introduction to Circuit Analysis)	
Engineering 45 (Materials of Engineering)	
Physics 4A (General Physics I)	

SOPHOMORE YEAR

FALL SPRING

Mathematics 3 (Multivariable Calculus)	5
Choose two Mathematics courses from the following:	6
Mathematics 4 (Elementary Differential Equations)	
Mathematics 6 (Elementary Linear Algebra)	
Mathematics 8 (Discrete Mathematics)	
Total	24-26

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

*Pending State Approval

MATHEMATICS (MATH)

1 CALCULUS I

5 UNITS

Elements of analytic geometry, derivatives, limits and continuity, differentiation of algebraic and trigonometric functions, the definite integral. Prerequisite: Mathematics 20 (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics assessment process. 5 hours lecture, 0-1 hour laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS, (CAN MATH 18); with MATH 2: (CAN MATH SEQ B); with MATH 2 and MATH 3: (CAN MATH SEQ C).

1W CALCULUS I WORKSHOP

1/4 -1/2 UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Calculus I. Corequisite: Mathematics 1. 1-2 hours laboratory.

2 CALCULUS II

5 UNITS

Techniques of integration, transcendental functions, inverse functions, hyperbolic functions, elements of analytic geometry, parametric equations, vectors in planes and three-dimensional spaces, elements of infinite series, power series, Taylor series. Prerequisite: Mathematics 1 (completed with a grade of "C" or higher). 5 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS, (CAN MATH 20); with MATH 1: (CAN MATH SEQ B); with MATH 1 and MATH 3: (CAN MATH SEQ C).

2W CALCULUS II WORKSHOP

1/4 -1/2 UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Calculus II. Corequisite: Mathematics 2. 1-2 hours laboratory.

3 MULTIVARIABLE CALCULUS

5 UNITS

Vector valued functions, functions of several variables, partial differentiation, multiple integration, change of variables theorem, scalar and vector fields, gradient, divergence, curl, line integral, surface integral, theorems of Green, Stokes and Gauss, applications. Prerequisite: Mathematics 2 (completed with a grade of "C" or higher). 5 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; (CAN MATH 22); with MATH 1 and MATH 2: (CAN MATH SEQ C).

3W MULTIVARIABLE CALCULUS WORKSHOP

1/4 -1/2 UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Multivariable Calculus. Corequisite: Mathematics 3. 1-2 hours laboratory.

4 ELEMENTARY DIFFERENTIAL EQUATIONS

3 UNITS

Introduction to differential equations, including first and second order equations, series solutions, Laplace transforms, applications. Prerequisite: Mathematics 2 (completed with a grade of "C" or higher). 3 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; (CAN MATH 24).

4W ELEMENTARY DIFFERENTIAL EQUATIONS WORKSHOP

1/4 -1/2 UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Elementary Differential Equations. Corequisite: Mathematics 4. 1-2 hours laboratory.

6 ELEMENTARY LINEAR ALGEBRA

3 UNITS

Introduction to linear algebra: matrices, determinants, systems of equations, vector spaces, linear transformations eigenvalue, eigenvectors, applications. Prerequisite: Mathematics 2 (completed with a grade of "C" or higher). 3 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; (CAN MATH 26).

6W ELEMENTARY LINEAR ALGEBRA WORKSHOP

1/4 -1/2 UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Elementary Linear Algebra. Corequisite: Mathematics 6. 1-2 hours laboratory.

*Or equivalent.

8 DISCRETE MATHEMATICS **3 UNITS**
 Counting techniques, sets and logic, Boolean algebra, analysis of algorithms, graph theory, trees, combinatorics, recurrence relations, introduction to automata. Designed for majors in mathematics and computer science. Prerequisite: Mathematics 1 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; (CAN CSCI 26).

8W DISCRETE MATHEMATICS WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Discrete Mathematics. Corequisite: Mathematics 8. 1-2 hours laboratory.

12 INTRODUCTION TO LOGIC **3 UNITS**
(See also Philosophy 12.)

Introduction to formal deductive logic with emphasis on developing the basic concepts of modern symbolic logic; includes deductive validity, relation of ordinary languages to symbolic logic, distinction between inductive validity and deductive, relation of truth to validity, uses of truth tables, role of logic in the disciplines of mathematics, philosophy and sciences, rules of inference for propositional logic and first order predicate logic. (May not receive credit if Philosophy 12 has been completed.) 3 hours. Transfer: CSU, UC; CSU/GE: A3; AA/AS; (CAN PHIL 6).

15 TUTOR TRAINING FOR MATHEMATICS **1 UNIT**
 Training for college tutors to acquire specific skills and techniques for tutoring in the area of mathematics. Required for tutors participating in the Mathematics lab and/or Math Study Groups. 1 hour. Transfer: CSU.

20 PRE-CALCULUS MATHEMATICS **5 UNITS**
 Rational functions and relations with emphasis on logical development and graphing. Solution of polynomial equations and inequalities, graphing conic sections, mathematical induction, binomial theorem; strengthening of skills in working with exponential, logarithmic, and trigonometric functions; equations, graphs, and applications. Prerequisite: Mathematics 36 or 37 (*both completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. 5 hours lecture, 0-1 hour laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS, (CAN MATH 16).

20W PRE-CALCULUS WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Precalculus. Corequisite: Mathematics 20. 1-2 hours laboratory.

31 COLLEGE ALGEBRA **3 UNITS**
 Functions and graphs; polynomials, rational functions, exponential and logarithmic functions; circles, parabolas, binomial theorem, sequences and series. Solving rational, radical, quadratic in form, exponential and logarithmic equations. Preparation for Calculus for Business and Social Science students. Prerequisite: Mathematics 55 or 55B (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the mathematics assessment process. 3 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS.

31W COLLEGE ALGEBRA WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for College Algebra. Corequisite: Mathematics 31. 1-2 hours laboratory.

32 CALCULUS FOR BUSINESS AND SOCIAL SCIENCES **4 UNITS**
 Functions and their graphs; differential and integral calculus of polynomial, exponential and logarithmic functions. Applications in business, economics, and the life and social sciences. Prerequisite: Mathematics 31 (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the mathematics assessment process. 4 hours. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS; (CAN MATH 34).

32W CALCULUS FOR BUSINESS AND SOCIAL SCIENCE WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Calculus for Business and Social Science. Corequisite: Mathematics 32. 1-2 hours laboratory.

33 FINITE MATHEMATICS **4 UNITS**
 Straight lines, systems of linear equations, matrices, systems of linear inequalities, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. Prerequisite: Mathematics 55 or 55B (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. 4 hours lecture, 0-1 hour laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS; (CAN MATH 12).

33W FINITE MATHEMATICS WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Finite Mathematics. Corequisite: Mathematics 33. 1-2 hours laboratory.

35 STATISTICS FOR BUSINESS MAJORS **4 UNITS**
 Introduction to modern probability, descriptive statistics, estimation, hypothesis testing (one and two sample) and linear regression. Applications to business and economics. Introduction to the use of a computer software package to complete both descriptive and inferential statistics problems. Prerequisite: Mathematics 1 or 32 (*completed with a grade of "C" or higher, may be taken concurrently*.) Strongly recommended: Eligibility for English 1A. 4 hours lecture, 1 hour laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS.

35W STATISTICS FOR BUSINESS MAJORS WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Statistics for Business Majors. Corequisite: Mathematics 35. 1-2 hours laboratory.

36 TRIGONOMETRY **3 UNITS**
 Plane trigonometry. Includes circular and right triangle trigonometric functions; trigonometric equations, graphs and identities; triangle solutions. Polar coordinates. Prerequisite: Mathematics 57 and Mathematics 55 or Mathematics 55B (*all completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Math 37 has been completed. 3 hours. Transfer: CSU; CSU/GE: B4; AA/AS.

36W TRIGONOMETRY WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Trigonometry. Corequisite: Mathematics 36. 1-2 hours laboratory.

37 TRIGONOMETRY WITH AN EMPHASIS ON ITS GEOMETRIC FOUNDATIONS **5 UNITS**
 Plane trigonometry, with topics from plane geometry. Contains the entire subject content of Mathematics 36. Includes circular and right triangle trigonometric functions; trigonometric equations, graphs and identities; triangle solutions. Polar coordinates. Also includes congruence, properties of polygons, parallel lines, similarity, areas, volumes, and coordinate geometry. Prerequisite: Mathematics 55 or Mathematics 55B (*both completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 36 has been completed. 5 hours. Transfer: CSU; CSU/GE: B4; M/AS.

37W TRIGONOMETRY WITH AN EMPHASIS ON ITS GEOMETRIC FOUNDATIONS WORKSHOP **1/4 -1/2 UNIT**
 Laboratory, study group, collaborative workshop or computer laboratory time for Trigonometry with an Emphasis on its Geometric Foundations. Corequisite: Mathematics 37. 1-2 hours laboratory.

40 CONCEPTS OF MATHEMATICS

3 UNITS

Investigation of the nature of mathematics as a human endeavor and an examination of important concepts of mathematics. Prerequisite: Mathematics 55 or 55 B (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. 3 hours. Transfer: CSU; UC; CSU/GE: B4; IGETC: Area 2; AA/AS.

40W CONCEPTS OF MATHEMATICS WORKSHOP $\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Concepts of Mathematics. Corequisite: Mathematics 40. 1-2 hours laboratory.

43 INTRODUCTION TO PROBABILITY AND STATISTICS

4 UNITS

Descriptive statistics, including measures of central tendency and dispersion; elements of probability; tests of statistical hypotheses (one and two populations); correlation and regression; applications in various fields. Introduction to the use of a computer software package to complete both descriptive and inferential statistics problems. Prerequisite: Mathematics 55 or 55B (*completed with a grade of "C" or higher*), or an appropriate skill level demonstrated through the mathematics assessment process. May not receive credit if Mathematics 35 has been completed. Strongly recommended: Eligibility for English 1A. May be offered in Distance Education delivery format. 4 hours lecture, 1 hour laboratory. Transfer: CSU, UC; CSU/GE: B4; IGETC: Area 2; AA/AS; (CAN STAT 2).

43W INTRODUCTION TO PROBABILITY AND STATISTICS WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Introduction to Probability and Statistics. Corequisite: Mathematics 43. 1-2 hours laboratory.

55 INTERMEDIATE ALGEBRA

5 UNITS

Concepts involving complex numbers, quadratic equations, parabolas and circles, functions and their graphs, systems of equations, rational exponents, radical equations, absolute value equations and inequalities, exponential and logarithmic functions and equations. Prerequisites: Mathematics 65 or Mathematics 65B or Mathematics 65L (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 55A and 55B have been completed. May be offered in Distance Education delivery format. 5 hours lecture, 0-1 hour laboratory. AA/AS.

55W INTERMEDIATE ALGEBRA WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Intermediate Algebra. Corequisite: Mathematics 55. 1-2 hours laboratory.

55A INTERMEDIATE ALGEBRA A

3 UNITS

Concepts covered in the first half of Mathematics 55 including complex numbers, quadratic equations, radical expressions, radical equations, rational exponents, absolute value equations and inequalities, and functions and their graphs. Prerequisite: Mathematics 65 or Mathematics 65B or Mathematics 65L (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 55 has been completed. 3 hours lecture, 0-1 hour laboratory. AA/AS.

55AW INTERMEDIATE ALGEBRA A WORKSHOP $\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Intermediate Algebra A. Corequisite: Mathematics 55A. 1-2 hours laboratory.

55B INTERMEDIATE ALGEBRA B

3 UNITS

Concepts covered in the second half of Mathematics 55 including parabolas and circles, function composition, inverse functions and their graphs, systems of equations, and exponential and logarithmic functions and equations. Prerequisite: Mathematics 55A (*completed with a grade of "C" or higher*). May not receive credit if Mathematics 55 has been completed. 3 hours lecture, 0-1 hour laboratory. AA/AS.

55BW INTERMEDIATE ALGEBRA B WORKSHOP $\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Intermediate Algebra B. Corequisite: Mathematics 55B. 1-2 hours laboratory.

57 PLANE GEOMETRY

3 UNITS

Topics in plane geometry. Includes congruence, similarity, parallel lines, and properties of polygons and circles. Prerequisite: Mathematics 65 or 65B, or 65L (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. 3 hours.

57W PLANE GEOMETRY WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Plane Geometry. Corequisite: Mathematics 57. 1-2 hours laboratory.

65 ELEMENTARY ALGEBRA

5 UNITS

Elementary concepts, including signed numbers, integral exponents, polynomials and rational expressions; linear, quadratic and rational equations; linear inequalities; introduction to graphs and set theory; systems of equations. Prerequisite: Mathematics 105 or 105L (*completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 65L or 65A and 65B have been completed. May be offered in Distance Education delivery format. 5 hours lecture, 0-1 hour laboratory. AA/AS.

65W ELEMENTARY ALGEBRA WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Elementary Algebra. Corequisite: Mathematics 65. 1-2 hours laboratory.

65A ELEMENTARY ALGEBRA A

3 UNITS

Concepts covered in the first half of Mathematics 65, including signed numbers, polynomials and integer exponents; linear equations and inequalities; introduction to graphs; set theory. Designed for those with no previous algebra background. Prerequisite: Mathematics 105 or 105L (*both completed with a grade of "C" or higher*) or an appropriate skill level demonstrated through the Mathematics assessment process. May not receive credit if Mathematics 65 or 65L has been completed. May be offered in Distance Education delivery format. 3 hours lecture, 0-1 hour laboratory.

65AW ELEMENTARY ALGEBRA A WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Elementary Algebra A. Corequisite: Mathematics 65A. 1-2 hours laboratory.

65B ELEMENTARY ALGEBRA B

3 UNITS

Concepts covered in the second half of Mathematics 65, including factoring, rational expressions and complex fractions; system of linear equations; quadratic and rational equations; graphing. Prerequisite: Mathematics 65A (*completed with a grade of "C" or higher*). May not receive credit if Mathematics 65 or 65L has been completed. 3 hours lecture, 0-1 hour laboratory. AA/AS.

65BW ELEMENTARY ALGEBRA B WORKSHOP

$\frac{1}{4}$ - $\frac{1}{2}$ UNIT

Laboratory, study group, collaborative workshop or computer laboratory time for Elementary Algebra B. Corequisite: Mathematics 65B. 1-2 hours laboratory.

65L ELEMENTARY ALGEBRA WITH LABORATORY 5½ UNITS
 Elementary concepts, including signed numbers, integral exponents, polynomials and rational expressions; linear, quadratic and rational equations; linear inequalities; introduction to graphs and set theory; systems of equations. Includes laboratory time designed to reinforce concepts and enhance problem-solving skills. Prerequisite: Mathematics 105 or 105L (completed with a grade of "C" or higher) or an appropriate skill level demonstrated through the Mathematics Assessment process. May not receive credit if Mathematics 65 or Mathematics 65A and Mathematics 65B have been completed. 5 hours lecture. 1½ hours laboratory. AA/AS.

105 BASIC MATHEMATICS 3 UNITS
 Fundamental computational skills with whole numbers, fractions, decimals, percents, and signed numbers. Order of operations. Ratios, proportions, and percents. Metric and U.S. Standard systems of measurements and geometric formulas. Introduction to algebra and simple linear equations. May be offered in Distance Education delivery format. 3 hours lecture, 0-1 hour laboratory.

105L BASIC MATHEMATICS WITH LAB 3½ UNITS
 Fundamental computational skills with whole numbers, fractions, decimals, percent, and signed numbers. Order of operations. Ratios, proportions, and percents. Metric and U.S. Standard systems of measurements and geometric formulas. Introduction to algebra and simple linear equations. Includes laboratory and study group time designed to reinforce and enhance the learning of basic mathematics. 3 hours lecture, 1½ hours laboratory.

105W BASIC MATHEMATICS WORKSHOP ¼ -½ UNIT
 Laboratory, study group, collaborative workshop or computer laboratory time for Basic Mathematics. Corequisite: Mathematics 105. 1-2 hours laboratory.

122 MATH LABORATORY ½ - 1 UNIT
 (May be repeated 3 times.)
 Provides mathematics students currently enrolled in any mathematics course with tutorial assistance from an instructor, student tutors, and fellow classmates. 1½-3 hours laboratory.

MEDICAL ASSISTING (MEDA)

**DEGREE:
 AA— MEDICAL ASSISTING**

**CERTIFICATE OF ACHIEVEMENT:
 MEDICAL ASSISTING**

These programs in Medical Assisting are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education of the American Association of Medical Assistants' Endowment (AAMAE). Completion of this program qualifies the student to take the National Certification examination (CMA).

Graduates of the Medical Assisting programs at Chabot College will have an opportunity to apply for employment as Medical Assistants in an ambulatory care setting. Medical Assistants are multi-skilled allied health professionals who can perform a variety of administrative and clinical skills.

**MEDICAL ASSISTING
 ASSOCIATE IN ARTS DEGREE**

This program in Medical Assisting is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education of the American Association of Medical Assistants' Endowment (AAMAE). Completion of this program qualifies the student to take the National Certification examination.

FRESHMAN YEAR	FALL	SPRING
Health 50 (Orientation to Health Care Delivery Systems)		2
Health 51A (Basic Medical Terminology)		4
Psychology 1 (General Psychology)		3
Health 60 (Responding to Emergencies)		1
Biology 50 (Anatomy and Physiology)		4
Business 7 (General Accounting)		3
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 88A (Microsoft Word® I) or Computer Science 8 (Computer Literacy) or Computer Application Systems 8 (Computer Literacy)		3

SOPHOMORE YEAR	FALL	SPRING
Health 51 B (Disease Process & Advanced Medical Terminology)		4
Health 70A (Community Cardiopulmonary Resuscitation)		½
Health 70B (Professional Cardiopulmonary Resuscitation)		½
Medical Assisting 70A (Clinical Skills for the Medical Assistant I)		3
Medical Assisting 71A (Medical Administrative Skills I)		2
Medical Assisting 75 (Administration of Medications for the Medical Assistant)		2
Medical Assisting 70B (Clinical Skills for the Medical Assistant II)		3
Medical Assisting 71B (Medical Administrative Skills II)		2
Medical Assistant 73A (Clinical Experience I)		1
Medical Assistant 73B (Clinical Experience II)		3
Medical Assistant 74 (Clinical Experience Seminar)		1
Total		42

The above courses need to be completed as well as General Education requirements for graduation with an Associate of Arts Degree in Medical Assisting.

All courses must be successfully taken in sequence to be eligible for graduation and be eligible to sit for the American Association of Medical Assistants Certified Medical Assistant (CMA) exam.

Prior to placement at Clinical Sites (MA 73A, 73B), the student should submit medical, dental and immunization records. Forms may be obtained from Admissions and Records, Room 168.

To progress in the Medical Assisting Associate in Arts Degree program and to graduate from the program, all courses must be passed with a grade of C or better

MEDICAL ASSISTING
CERTIFICATE OF ACHIEVEMENT

This program in Medical Assisting is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Committee on Accreditation for Medical Assistant Education of the American Association of Medical Assistants' Endowment (AAMAE). Completion of this program qualifies the student to take the National Certification examination.

The student would benefit from taking Health 50, Health 51A, CAS 50 or CAS 88A or CAS 8 or CAS 8 before entering the program in the Fall.

The Reading requirements for the program tests are at college level. Students must have a strong mastery of reading, comprehension and oral language skills. It is highly recommended that students take the English placement test to determine their level of English skills.

The Medical Assisting Certificate Program is offered in **two semesters**.

All courses for the Medical Assisting Certificate of Achievement must be completed with a "C" or better

FALL SPRING

Health 50 (Orientation to Health Care Delivery System)	2
Health 51A (Basic Medical Terminology)	4
Health 70A (Community Cardiopulmonary Resuscitation)	½
Health 70B (Professional Cardiopulmonary Resuscitation)	½
Computer Application Systems 50 (Introduction to Computer Application Systems) or Computer Application Systems 88A (Microsoft Word® I) or Computer Science 8 (Computer Literacy) or Computer Application Systems 8 (Computer Literacy)	3
Medical Assisting 70A (Clinical Skills for the Medical Assistant I)	3
Medical Assisting 71A (Medical Administrative Skills I)	2
Medical Assisting 75 (Administration of Medications for the Medical Assistant)	2
Health 51B (Disease Process & Advanced Medical Terminology)	4
Medical Assisting 70B (Clinical Skills for the Medical Assistant II)	3
Medical Assisting 71B (Medical Administrative Skills II)	2
Medical Assisting 73A (Clinical Experience I)	1
Medical Assisting 73B (Clinical Experience II)	3
Medical Assisting 74 (Clinical Experience Seminar)	1
Total	31

Prior to placement at Clinical Sites (MA 73A, 73B), the student should submit medical, dental and immunization records. Forms may be obtained from Admissions and Records, Room 168.

To progress in the Medical Assisting Certificate Program and to graduate from the program, students must earn a minimum grade of C in each course.

MEDICAL ASSISTING (MEDA)

70A CLINICAL SKILLS FOR THE MEDICAL ASSISTANT I 3 UNITS

Introduction to the clinical role of the Medical Assistant. Includes basic and advanced skills which are utilized when assisting the physician and performing direct patient care. Corequisite: Health 51A (may be taken concurrently). 2 hours lecture, 3 hours laboratory. Transfer: CSU.

70B CLINICAL SKILLS FOR THE MEDICAL ASSISTANT II 3 UNITS

Continuation of Medical Assisting 70A. Basic and advanced clinical skills common to medical offices and clinics. Use of advanced clinical skills while assisting the physician and performing direct patient care. Prerequisite: Medical Assisting 70A (completed with a grade of "C" or higher). 2 hours lecture, 3 hours laboratory. Transfer: CSU.

71A MEDICAL ADMINISTRATIVE SKILLS I 2 UNITS

Administrative Medical Assisting skills which include office management, composing and preparing correspondence, appointment procedures and receptionist techniques. Corequisite: Health 51A. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

71B MEDICAL ADMINISTRATIVE SKILLS II 2 UNITS

Administrative Medical Assisting skills which include medical economics, banking, billing, medical insurance and coding. Prerequisite: Medical Assisting 71A (completed with a grade of "C" or higher) 1 hour lecture, 3 hours laboratory. Transfer: CSU.

73A CLINICAL EXPERIENCE I 1 UNIT

Application of principles and skills through participation in a simulated employment experience. Assisting the physician under close supervision. Prerequisite: Medical Assisting 70A, 71A. Corequisite: Medical Assisting 74. 7½ hours clinical practice. Total weeks – 6. Transfer: CSU.

73B CLINICAL EXPERIENCE II 3 UNITS

Application of principles and skills through participation in a simulated employment experience. Assisting the physician under close supervision in a clinic or office setting. 15 hours clinical practice. Total weeks – 12. Transfer: CSU.

74 CLINICAL EXPERIENCE SEMINAR 1 UNIT

Discussion and analysis of clinical situations in the hospital clinic setting and private physician's office. Corequisite: Medical Assisting 73A and 73B. 1 hour. Transfer: CSU.

75 ADMINISTRATION OF MEDICATIONS FOR THE MEDICAL ASSISTANT 2 UNITS

Medication administration including study of drugs, drug research, drug therapy, immunizations and skin tests. Safe preparation, administration, and documentation of medication given by oral, sublingual, inhalation, topical, vaginal, rectal, transdermal, intramuscular, subcutaneous and intradermal routes. Corequisite: Medical Assisting 70A and Medical Assisting 71A, or Medical Assisting work experience, or graduate of Medical Assisting Program, or equivalent. 2 hours lecture, 3 hours laboratory, 12 weeks. Transfer: CSU.

MICROBIOLOGY

(See Biological Sciences)

MUSIC

DEGREE:

AA – MUSIC

The Music Department offers an Associate in Arts Degree with three emphases: performance, composition, history/literature. The core sequence is comprised of a two-year course integrating theory, literature, and composition, the development of music in the context of western society, and a performance component comprised of both solo and ensemble experiences. The student then specializes in one of the three emphases listed above. At the end of the sophomore year, all majors will be required to pass a piano proficiency examination.

MUSIC

ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Music 2A (Harmony and Musicianship I)	5	
Music 21A (Beginning Piano)	1	
Music Option*	1	
Performance Option**	2-2½	
Music 2B (Harmony and Musicianship II)		5
Music 21B (Beginning Piano—Intermediate)		1
Music Option*		1
Performance Option**		2-2½

SOPHOMORE YEAR	FALL	SPRING
Music 2C (Harmony and Musicianship III)	5	
Music Option*	1	
Performance Option**	2-2½	
Music 2D (Harmony and Musicianship IV)		5
Music Option*		1
Performance Option**		2-2½

***Music Option**

Select course(s) from the following for a total of 4 units:

- Music 23A (Elementary Voice I)
- Music 23B (Elementary Voice II)
- Music 30 (Study of Guitar)
- Music 31 (Study of Piano)
- Music 33 (Study of Voice)
- Music 34 (Study of Woodwinds)
- Music 35 (Study of Brass)
- Music 36 (Study of Strings)
- Music 37 (Study of Percussion)
- Music 38 (Individual Study)

****Performance Option**

Select course(s) from the following for a total of 8 units:

- Music 12 (College Band)
- Music 14 (Intermediate Jazz Workshop)
- Music 15 (Advanced Jazz Band)
- Music 44 (Concert Choir)
- Music 45 (Chamber Choir)

Total 34-36

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

All music majors will be expected to pass a piano proficiency examination. Consult the Language Arts and Humanities Division Office for specific requirements.

MUSIC

LITERATURE, THEORY AND MUSICIANSHIP (MUSL)

1 INTRODUCTION TO MUSIC 3 UNITS
 Music for enjoyment and understanding through informed listening, analysis, evaluation and discernment of musical elements, forms, and repertoire. Attendance at concerts and listening to a variety of music may be required. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS.

2A HARMONY AND MUSICIANSHIP I 5 UNITS
 Elements of diatonic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Includes keys, modes, scales, tonality, intervals, solfeggio, consonance/dissonance, rhythmic organization, chord structures, chord and interval recognition, melodic and rhythmic dictation, voice leading principles, non-chord tones, four-part voice leading with selected primary and secondary chords, and figured bass realization. Strongly recommended: Music 6 or equivalent skills. 5 hours. Transfer: CSU, UC.

2B HARMONY AND MUSICIANSHIP II 5 UNITS
 Continues diatonic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Continues solfeggio, chord recognition, melodic and rhythmic dictation, diatonic four-part voice leading, and figured bass realization. Introduces harmonic dictation, cadential elaboration, non-dominant seventh chords, and tonicization/modulation to the dominant. Prerequisite: Music 2A (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC.

2C HARMONY AND MUSICIANSHIP III 5 UNITS
 Elements of both diatonic and chromatic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Continues solfeggio; chord recognition; melodic, rhythmic, and harmonic dictation; and figured bass realization. Introduces chorale dictation, chromatic four-part voice leading, chord progression and succession techniques, non-chord tones using figuration and rhythmic displacement, and mode mixture. Prerequisite: Music 2B (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC.

2D HARMONY AND MUSICIANSHIP IV 5 UNITS
 Continues chromatic harmony through part writing and ear training exercises as typified by musical practice from 1600 to the present. Further study in solfeggio; melodic, rhythmic, and choral dictation; chromatic four-part voice leading; figured bass realization; and chord succession and progression techniques. Introduces secondary dominants; diatonic modulation extend chords; Neapolitan, augmented sixth, augmented, and altered dominant chords; chromatic embellishing chords; and chromaticism in larger contexts. Prerequisite: Music 2C (*completed with a grade of "C" or higher*). 5 hours. Transfer: CSU, UC.

3 WORLD MUSIC 3 UNITS
 The study of the folk and art music of world cultures. Includes the traditional music of Sub-Saharan Africa, Middle East, China, Japan, Indonesia, India, Latin America, Europe, and Native America. Attendance at four concerts in the San Francisco Bay Area required. Strongly recommended: Music I or Music 6 or comparable music knowledge. Offered in Distance Education format only. 3 hours. Transfer: CSU; CSU/GE: C1; AA/AS.

4 JAZZ STYLES**3 UNITS**

History, trends, and influences of the phenomenon of jazz beginning with preDixieland early 1900's covering the various eras including Swing, BeBop and post Be-Bop to present day. 3 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS.

5 AMERICAN CULTURES IN MUSIC**3 UNITS**

Music in twentieth century United States through the study of contributions of three selected groups from the following: African-Americans, Latin-Americans, Asian-Americans, European-Americans, and Native Americans. Emphasis on understanding diverse styles, and on integrating these styles into American music. Concert, religious, and folk-pop music will be included. 3 hours. Transfer: CSU, UC.

6 BASIC MUSIC SKILLS**2 UNITS**

Essentials of music through notation, time elements, melody, harmony, and tonality, texture, dynamics and knowledge of the keyboard. Sight singing and ear training. 2 hours. Transfer: CSU, UC; CSU/GE: C1.

7 ELECTRONIC MUSIC**2 UNITS***(May be repeated 1 time.)*

Electronic music production techniques and performance practices; survey of electronic instruments and their development; fundamentals of acoustics and synthesizer programming, digital control, and recording. Prerequisite: Music 6* (*completed with a grade of "C" or higher*). 2 hours lecture, 1 hour laboratory. Transfer: CSU, UC.

11A INTRODUCTION TO JAZZ IMPROVISATION**2 UNITS**

Major scales, chord construction, and development of melodic lines used in contemporary styles of Jazz Improvisation. Jazz literature for small groups of the post Bop era. Corequisite: Music 12, 14, 15, or 45*. 3 hours. Transfer: CSU, UC.

11B JAZZ IMPROVISATION AND ARRANGING FOR SMALL GROUPS**2 UNITS***(May be repeated 2 times)*

Exotic scales, altered chord construction, and development of modal and intervallic concepts used in avant garde jazz improvisation. Techniques used in composing and arranging for the small Jazz Combo. Musical scores written by professional composers and arrangers. Prerequisite: Music 11A (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC.

MUSIC**PERFORMANCE (MUSP)****12 SYMPHONIC BAND****2-2½ UNITS***(May be repeated 3 times, limit 10 units.)*

Band repertoire of all styles and periods. Emphasis on group participation and public performance. Attendance at all scheduled performances required. 4-5 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS.

14 JAZZ ENSEMBLE**2 UNITS***(May be repeated 3 times)*

Reading, preparation and performance of contemporary Jazz music. Opportunity to apply improvisation techniques in a small group setting. 4 hours. Transfer: CSU, UC; AA/AS.

15 JAZZ BAND**2 UNITS***(May be repeated 3 times)*

Reading, preparation and performance of contemporary Jazz music, arranged for standard Jazz Big Band. Opportunities to arrange and compose for the band as well as to conduct. 4 hours. Transfer: CSU, UC.

17 BRASS ENSEMBLE**1 UNIT***(May be repeated 3 times)*

Literature for brass ensemble. Emphasis on rehearsal and performance. Strongly recommended: Music 6. 2 hours. Transfer: UC.

18 PERCUSSION ENSEMBLE**1 UNIT***(May be repeated 3 times)*

Literature for percussion ensemble. Emphasis on rehearsal and performance. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

19 STEEL DRUM BAND**1 UNIT***(May be repeated 3 times)*

Music from the Caribbean played on steel drums. Emphasis on rehearsal and performance. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

43 VOCAL ENSEMBLE**1 UNIT***(May be repeated 3 times)*

Instruction for the advanced singer; an opportunity to explore and perform vocal chamber music. 2 hours. Transfer: CSU, UC.

44 CONCERT CHOIR**1½-2½ UNITS***(May be repeated 3 times)*

Development of vocal and musical ability to interpret and perform the highest calibre of choral literature. 3-5 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS.

45 CHAMBER CHOIR**1½-2½ UNITS***(May be repeated 3 times)*

Development of sufficient vocal and music ability to interpret and perform a variety of vocal chamber music. Designed for the advanced singer. 1-5 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS.

46 JAZZ CHOIR**2 UNITS***(May be repeated 3 times)*

Vocal jazz ensemble performing. Emphasis on developing and performing a variety of vocal jazz. 4 hours. Transfer: CSU, UC.

47 COLLEGE PRODUCTIONS—MUSIC**1-5 UNITS***(May be repeated 3 times)*

Participation in scheduled music productions. Includes music support for drama productions, college musicals, and other major performances. Enrollment is for the duration of the production. 3-15 laboratory hours. Transfer: CSU, UC.

50 COLLEGIATE CHORALE**1 UNIT***(May be repeated 3 times)*

Study and performance ensemble. Development of vocal and musical ability to interpret and perform choral literature. 3 hours laboratory. Transfer: CSU.

MUSIC**APPLIED (MUSA)****20 ELEMENTARY GUITAR****1 UNIT**

Beginning guitar using a combination of folk and classic approaches to playing technique, utilizing basic scales and chords in first position, and music notation. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

21A BEGINNING PIANO**1 UNIT***(May be repeated 3 times)*

Class piano with emphasis on developing technique and performing. Prerequisite: Music 6. (*completed with a grade of "C" or higher*) or equivalent. 2 hours. Transfer: CSU, UC.

21B BEGINNING PIANO—INTERMEDIATE**1 UNIT***(May be repeated 3 times)*

Development of skills learned in Music 21A. Emphasis on further development of technique and performance. Prerequisite: Music 21A (*completed with a grade of "C" or higher*) or equivalent. 2 hours. Transfer: CSU, UC.

22 JAZZ PIANO-BEGINNING TO INTERMEDIATE 2 UNITS
Voicings, chords, and guidelines in improvisation in the contemporary styles of the jazz pianist. Post bop era, through modern to avant garde piano playing in the jazz idiom. Requires basic knowledge of notation and keyboard performance. 3 hours. Transfer: CSU, UC.

23A ELEMENTARY VOICE I 1 UNIT
Group singing with emphasis on solo performance. Tone production, breathing, diction, and interpretation in regard to song literature. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

23B ELEMENTARY VOICE II 1 UNIT
Development of skills learned in Music 23A. Emphasis on further development of vocal production and performance. Prerequisite: Music 23A (completed with a grade of "C" or higher). 2 hours. Transfer: CSU, UC.

30 STUDY OF GUITAR 1 UNIT
(May be repeated 3 times)
Development of skills and knowledge from Music 20. Emphasis on playing techniques and performance. Designed for the intermediate and advanced performer. Prerequisite: Music 20* (completed with a grade of "C" or higher). 2 hours. Transfer: CSU, UC.

31 STUDY OF PIANO 1 UNIT
(May be repeated 3 times)
Development of advanced knowledge and performing skills at the piano. Required of piano majors and minors. Prerequisite: Music 21B completed with a grade of "C" or higher, or equivalent. 2 hours. Transfer: CSU, UC.

32 STUDY OF JAZZ PIANO 2 UNITS
(May be repeated 3 times)
Techniques, patterns, and modal concepts used by avant-garde jazz performers in the field today. Includes "comping" techniques in jazz and Latin jazz performance. Development of self-style through in-depth research of modern jazz performers and literature of same. Designed for knowledge and skill of intermediate or advanced level. Prerequisite: Music 22 (completed with a grade of "C" or higher). 3 hours. Transfer: CSU, UC.

33 STUDY OF VOICE 1 UNIT
(May be repeated 3 times)
Individual improvement of the technical facility, tone quality, and range of the singing voice in solo performances; designed to extend knowledge of the literature in general and help acquire a basic repertory. Required for voice majors Prerequisite: Music 23B* (completed with a grade of "C" or higher). 2 hours. Transfer: CSU, UC.

34 STUDY OF WOODWINDS 1 UNIT
(May be repeated 3 times)
Designed to improve the technical facility, musicianship and performance level of the woodwind instrumentalist. Required of woodwind majors and minors. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

35 STUDY OF BRASS 1 UNIT
(May be repeated 3 times)
Designed to improve the technical facility, musicianship and performance level of the brass instrumentalist. Required of brass majors and minors. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

36 STUDY OF STRINGS 1 UNIT
(May be repeated 3 times)
Designed to improve the technical facility, musicianship and performance level of the string instrumentalist. Required of string majors and minors. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

37 STUDY OF PERCUSSION 1 UNIT
(May be repeated 3 times)
Designed to improve the technical facility, musicianship and performance level of the percussion instrumentalist. Required of percussion majors and minors. Strongly recommended: Music 6. 2 hours. Transfer: CSU, UC.

38 INDIVIDUAL STUDY 1 UNIT
(May be repeated 3 times)
Specialized study of voice or instrument. Designed for music major or minor to increase opportunities in individualized study of voice or instrument. 2 hours. Transfer: CSU, UC.

39 MUSICAL THEATRE WORKSHOP 1 UNIT
Training in performance skills for musical theatre with emphasis on vocal production, technique, and style. Corequisite: Theatre Arts 39. 2 hours.

42 VOCAL REPERTOIRE 1 UNIT
(May be repeated 3 times)
Vocal repertoire with emphasis on solo performance. Includes vocal solo literature of the Baroque, Classical, Romantic, and Contemporary periods in French, German, English, Italian, and Spanish. Prerequisite: Music 23B or 33 (may be taken concurrently). 2 hours. Transfer: CSU, UC.

NURSING (NURS)

DEGREE:

AA – NURSING

AA – NURSING PROGRAM FOR LVN

The Nursing Program is approved by the California Board of Registered Nursing. An accelerated program has offered Licensed Vocational Nurses admission into the 2nd year of the major. Upon completion of the major, students are eligible for the Registered Nurse License Examination. The program prepares graduates who can contribute to the advancement of nursing science and influence changes in a variety of settings within the health care system. The graduate possesses a repertoire of knowledge, skills, and attributes that serve as the foundation for safe, competent practice and lifelong learning.

NURSING

ASSOCIATE IN ARTS DEGREE

This program in nursing is approved by the California Board of Registered Nursing. Completion of this program qualifies the student to take the National Council Licensing Examination for Registered Nursing (NCLEX).

FRESHMAN YEAR	FALL	SPRING
Nursing 55 (Fundamentals of Nursing Practice)	9	
Nursing 56 (Essentials of Human Growth and Development).	½	
Nursing 57 (Legal-Ethical Issues in Nursing)	½	
Nursing 61 (Clinical Nutrition).	1½	
Nursing 59* (Nursing Care of the Childbearing Family)	8½	
Nursing 64 (Pharmalogical Basis of Therapeutics).	2½	
Nursing 69 (Gerontological Nursing)	1	
Nursing 74 (Nursing Care Plans)	1	
Nursing 75 (Fluids and Electrolytes)	1	
Nursing 58 (Nursing Care for Patients with Infectious Blood-Borne Diseases)	½	

	FALL	SPRING
SOPHOMORE YEAR		
Nursing 60A* (Adult Health I: Biopsychosocial: Perspectives in the Care of the Adult Client in the Hospital and the Community)		8
Nursing 60B (Adult Health II)		6
Nursing 60C (Adult Health III)	3½	
Nursing 66 (Advanced Clinical Topics)	½	
Nursing 73* (Intravenous Therapy)		1
Sociology **.		3
Physiology 2 (Pathophysiology)		3
Physiology 2L (Physical Assessments)	½-1	
Speech 1 (Fundamentals of Speech Communication) or Speech 30+ (Elements of Speech)		3
Total		54½

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60*

* Offered each semester
** Nursing major Sociology may be selected from Sociology 1 or 31
+ must be completed by the end of the third semester. Before second year clinical sequence, Psychology 1 or 50 (3 units) and Nursing 64 (2½ units) must be completed.

To progress in the Nursing Program and to graduate from the program, students must earn a minimum grade of "C" in each course of the nursing major.

California Board of Registered Nursing Requirements for licensure: 72 units including 45 units in nursing.

SPECIAL APPLICATION REQUIRED:

Prerequisites for admission to this program include: (1) completion of special application; (2) 2.7 overall college grade point average; (3) completion of Anatomy 1, Physiology 1, and Microbiology 1 with laboratory components and with a cumulative grade point average in sciences of 2.3 or higher; (4) prerequisite coursework must be completed by the end of the Fall Semester which precedes the closing filing date of the year of application. Selection of students is made from among all eligible candidates and is limited to the number of spaces available in the program.

Advanced standing status may be granted to students who have previously completed any portion of the defined nursing curriculum or its equivalent as determined by the Health Sciences Counselor Coordinator or the Nursing Program Coordinator.

GRADUATES OF THIS PROGRAM RECEIVE AN ASSOCIATE IN ARTS DEGREE IN NURSING, AND ARE ELIGIBLE TO TAKE THE NATIONAL COUNCIL LICENSING EXAMINATION FOR REGISTERED NURSING (NCLEX-RN) IN ALL FIFTY STATES.

Note: The Board of Registered Nursing requirements supersede catalog rights for graduation.

REGISTERED NURSING PROGRAM FOR LICENSED VOCATIONAL NURSING
ASSOCIATE IN ARTS DEGREE

THIRTY UNIT OPTION FOR LVNS WHO ENTER IN THE SECOND YEAR.

LVNs who enter into the second year of the nursing program are eligible for the 30 unit option. This option is offered and accepted only in the State of California. GRADUATES OF THIS PROGRAM ARE ELIGIBLE TO TAKE THE NATIONAL COUNCIL LICENSING EXAMINATION FOR REGISTERED NURSING (NCLEX-RN) IN THE STATE OF CALIFORNIA. Please see the Nursing Program Coordinator regarding this option.

This program meets the requirements of Section 2736.6 of the Nurse Practice Act and Section 1429 of the Regulations.

Open only to Licensed Vocational Nurses holding a current California license as an LVN.

The program of study listed below is required for the LVN choosing the 30 unit Option at Chabot College.

CORE COURSES	UNITS
Microbiology I (Microbiology)	5
Physiology I (Human Physiology)	5
Nursing 70 (Nursing Theory: LVN-RN Transitions)	1½

The above courses must be completed before enrolling in the clinical sequence, as well as theoretical and clinical validation.

SOPHOMORE YEAR	FALL	SPRING
Nursing 62X (Psychiatric Nursing)		4
Nursing 69 (Gerontological Nursing)		1
Physiology 2 (Pathophysiology)		3
Physiology 2L (Physical Assessments)	½-1	
Nursing 60B (Adult Health II)		6
Nursing 60C (Adult Health III)		3½
Nursing 66 (Advanced Clinical Topics)		½
Total		30-30½

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

Prerequisites for admission to the program include:
(1) Completion of special application
(2) Validation of previous nursing knowledge is required for counseling/assessment purposes.

For A.A. degree in Nursing, general education requirements and specific requirements in Psychology, Sociology, Speech, Anatomy and English must also be completed to a combined total of at least 60 semester units.

Advanced standing status is granted to students who have previously completed any portion of the defined nursing curriculum or its equivalent as determined by the Health Sciences Counselor Coordinator or the Nursing Program Director.

Note: The Board of Registered Nursing requirements override the Chabot College requirements for graduation as stated in the Chabot College catalog.

NURSING (NURS)

55 FUNDAMENTALS OF NURSING PRACTICE 9 UNITS

Introduction to fundamental concepts and practices in nursing care across the life span with emphasis on later-life issues. Application of the nursing process to the care of adult clients with the following chronic disorders: Hypertension, Cancer, Diabetes Mellitus, Coronary Artery Disease, and Cerebrovascular Accidents. Beginning nursing skills include: principles of medical asepsis, body mechanics, standard precautions, hygienic and nutritional care, and administration of medications. Theoretical content provides overview of the care of clients with diverse cultural backgrounds and spiritual needs as well as principles of therapeutic communication and mental health. Prerequisite: Acceptance into the Nursing Program. 4 hours lecture, 15 hours clinical practice. Transfer: CSU.

56 ESSENTIALS OF NURSING CARE RELATED TO HUMAN GROWTH AND DEVELOPMENT 1/2 UNIT

Overview of human growth and development from infancy to late adulthood with continuation throughout the nursing program. Prerequisite: Acceptance into the Nursing Program, or concurrent enrollment in another nursing program, or with consent of instructor. 1 hour. Total weeks: 9. Transfer: CSU.

57 LEGAL-ETHICAL ISSUES IN NURSING 1/2 UNIT

Basic distinctions between law and ethics as they impact the nurse, with special attention to the California Nursing Practice Act and the law of negligence in professional malpractice; emphasis on standards of care, client rights, informed consent, and charting. Prerequisite: Acceptance into the Nursing Program, or concurrent enrollment in another nursing program, or if taken for Continuing Education, valid California RN or LVN license. 1 hour. Total weeks: 9. Transfer: CSU.

58 NURSING CARE FOR PATIENTS WITH BLOOD-BORNE INFECTIOUS DISEASE 1/2 UNIT

Emphasis is on the use of the nursing process in the care of clients with HIV, Hepatitis B and C, including pathophysiology, psychosocial and pharmacological issues, and preventive measures. The significance of specific nursing care measures, therapeutic health care giver attitudes and behaviors, and community resources available for caregivers and patients will be included. Prerequisites: Completion of Nursing 55, 56, 61, 69, 74, with a "C" or better. Satisfactory completion of or concurrent enrollment in Nursing 57, 64, and 75, or consent of instructor. Lecture: 9 hours; Total weeks: 9. Transfer: CSU.

59 NURSING CARE OF THE CHILDBEARING FAMILY 8 1/2 UNITS

Emphasis is placed on the use of the nursing process in promoting adaptive processes necessary for coping with family health issues; theory and clinical highlight the coping mechanisms for childbearing and childbearing families. The focus is on cultural diversity and growth and development as they affect the physiological and psychological adaptation of families experiencing pregnancy, labor and birth, postpartum, newborn, and common health issues and problems of infants, children, and adolescents. Theory and clinical practice includes integration of assessment skills, growth and development, family abuse issues, nutrition, pharmacological concepts, ethical issues, and teaching strategies unique to childbearing and childbearing families. Clinical focuses on care of clients in community and acute care settings. Prerequisites: Completion of Nursing 55, 56, 61, 69, 74, with a "C" or better. Satisfactory completion of or concurrent enrollment in Nursing 57, 58, 64 and 75. Lecture: 4 hours; Clinical: 13 1/2 hours week. Transfer: CSU.

60A ADULT HEALTH I—BIOPSYCHOSOCIAL PERSPECTIVES IN THE CARE OF THE ADULT CLIENT IN THE HOSPITAL AND THE COMMUNITY 8 UNITS

Emphasis is on the use of the nursing process in the care of adults experiencing selected conditions requiring treatment in medical-surgical and psychiatric care settings. Theory and clinical practice highlight the role of the nurse as a therapeutic agent (in both individual and group settings) in facilitating the client's mind/body adaptation and return to as healthy a state as is possible. Effects on cultural diversity, growth and development, and the importance of support systems in assisting the patient's response to illness in acute and community care agencies are incorporated into health care strategies used by the nurse. Theory and clinical practice includes integration of biopsychosocial assessment skills, nutrition, pharmacological and crisis intervention concepts, legal-ethical issues, and anger management (directed inward or towards the environment) into the care of these patients. Prerequisites: Completion of Nursing 55, 56, 61, 69, 74, with a "C" or better. Satisfactory completion of or concurrent enrollment in Nursing 57, 58, 64, 75. Lecture: 4 hours; Clinical: 12 hours week. Transfer: CSU.

60B ADULT HEALTH II 6 UNITS

Nursing interventions that assist the adult client in adaptation to stressors of acute and chronic illnesses with unpredictable outcomes. Focus on caring for groups of clients in the medical-surgical setting. Prerequisites: Physiology 2, Physiology 2L, Nursing 60A, and all prior nursing courses in the Associate Degree Nursing program (all completed with a grade of C or higher). 4 hours lecture, 15 1/2 hours clinical practice. Total weeks - 12. Transfer: CSU.

60C ADULT HEALTH III 3 1/2 UNITS

Transitional skills needed by the nursing student who is completing the nursing program. Includes skills that facilitate entry into today's nursing practice arena: leadership styles, delivery of nursing care to groups of clients in the acute and chronic health care setting, supervision of unlicensed assistive personnel, case management, delegation of assignments, prioritization of client care, and the health care organization. Prerequisites: Physiology 2, Physiology 2L, Nursing 60B, 66 and all prior nursing courses in the Associate Degree Nursing program (*all completed with a grade of CR, C or higher*). 2 hours lecture, 24 hours/week clinical. Total weeks - 6. Transfer: CSU.

61 CLINICAL NUTRITION 1 1/2 UNITS

Introduction to principles of clinical nutrition. Assessment of nutritional status; application of nutritional principles across the life span in the hospital and community; diet therapy in the treatment of selected diseases; nutritional supplements; weight gain and weight loss; impact of culture and spiritual beliefs on diet. Co-requisite: nursing 55, 69, 74 (or satisfactory completion of equivalent). 1 1/2 hours.

64 PHARMACOLOGICAL BASIS OF THERAPEUTICS 2 1/2 UNITS

Introduction to the principles of clinical pharmacology, the administration of drugs as therapeutic agents, and the interactions of drugs and body tissues. The purpose, action, and expected physiological responses of therapeutic agents and dosage forms currently used in treating pain, infectious processes, and selected acute and chronic disease states in the cardiovascular, endocrine, respiratory, autonomic nervous and central nervous systems is explored as well as the integration of the concept in the nursing process. Prerequisite: Satisfactory completion of all courses in the first semester of the nursing curriculum and concurrent enrollment in Nursing 57, 58 and 75, or possession of a valid California RN or LVN license. 2 1/2 hours lectures.

66 ADVANCED CLINICAL TOPICS**1/2 UNIT**

Introduction to advanced clinical topics confronting the registered nurse in today's health care setting. Prerequisite: Satisfactory completion of Physiology 2 and 2L (or equivalent) and all required nursing courses (or equivalent) in semesters one through three, and concurrent or prior enrollment in Nursing 60B and Nursing 73 (both completed with a grade of "C" or "CR" or better). 1.5 hour, 6 weeks.

69 GERONTOLOGICAL NURSING**1 UNIT**

Nursing care of interventions in the aging client. Physical and psychosocial changes which occur with the aging process. Focus on successful adaptation to the aging process with emphasis on maintaining or regaining optimal health. Strategies for caring of client with altered life styles as a result of problems associated with aging. Theories of aging and cultural influences on the aging process. Corequisite: Nursing 55, 61, 74 (or satisfactory completion of equivalent) or possession of valid California LVN license. 1 hour. Transfer: CSU.

70 NURSING THEORY: LVN-RN TRANSITIONS**1 1/2 UNITS**

A review of nursing topics for the LVN who wishes to upgrade to Registered Nurse. Includes the nursing care plan used in Chabot College's nursing program with clinical applications of the modified Roy Adaptation Model to the steps of the nursing process, principles of therapeutic communication, introduction to the functions of the Board of Registered Nursing, legal-ethical concepts common to the role of the registered nurse, and review of selected psychomotor skills utilized by the nurse in the delivery of health care. Prerequisite: Valid California LVN license and completion of Physiology 1 and Microbiology 1 with a grade of "C" or higher. May be offered in Distance Education delivery format. 1 1/2 hours laboratory.

71 MATERNITY NURSING PROBLEMS**1 1/2 UNITS**

Maternal adaptations during childbearing cycle including assessment and management of mother and newborn during ante-partal, intra-partal and post-partal periods, in both predictable and non-predictable circumstances, with emphasis on the latter. Prerequisite: Nursing 70 (completed with a grade of "C" or higher). 1 1/2 hours.

72 PEDIATRIC NURSING PROBLEMS**1 1/2 UNITS**

Nursing interventions that assist the child and family with adaptive processes necessary to cope with acute and chronic conditions affecting infants, children, and adolescents. Includes but is not limited to medical/surgical illnesses, child abuse, growth and development, pharmacological actions, and cultural diversity as they affect nursing care of children. Emphasis on advanced concepts of pediatric nursing. Prerequisite: Nursing 70 (completed with a grade of "C" or higher). 1 1/2 hours.

73 INTRAVENOUS THERAPY**1 UNIT**

Safe administration and maintenance of intravenous therapy as a treatment modality. Includes differentiation of commonly used solutions, dosage calculation, vein selection and venipuncture techniques, recognition of and response to complications. Includes laboratory practice. Prerequisite: concurrent enrollment in the nursing program or eligibility for fourth semester of nursing curriculum or a valid California RN license or valid LVN license. 2 hours. Total weeks: 9.

74 THE NURSING CARE PLAN**1 UNIT**

Introduction to the development of the nursing care plan used in Chabot College's nursing program with clinical applications of the modified Roy Adaptation Model to the steps of the nursing process. Co-requisite: Nursing 55, 61, 69 (or satisfactory completion or equivalent). 1 hour.

75 FLUID AND ELECTROLYTES**1 UNIT**

Introduction to principles of fluid and electrolyte balance. Assessment and treatment of imbalances; parenteral therapy; acid-base balance; interpretation and application of laboratory results. Prerequisite: All nursing courses in the first semester of the nursing curriculum (or equivalent) completed with a grade of "C" or higher and concurrent enrollment in Nursing 57, 58 and 59 (or 60A) and 64 or possession of valid California RN or LVN license. 1 hour lecture.

76 NURSING CARE PLAN DEVELOPMENT FOR CLINICAL PRACTICE**1 UNIT***(May be repeated 3 times)*

Modified Roy Adaptation Model for nursing care planning. Organizing and constructing a nursing care plan utilizing medical records and resources available in the clinical setting. Development of critical thinking across the nursing curriculum. Prerequisite: concurrent enrollment in the nursing program. 3 hours laboratory.

NUTRITION (NUTR)**1 BASIC NUTRITION****3 UNITS**

Basics of nutrition, including nutrients, nutritional needs, digestion/absorption, and the role of nutrition in the maintenance of health. Designed to meet the necessary nutrition requirements for majors in the fields of allied health. Strongly recommended: Chemistry 30A (completed with a grade of "C" or higher). 3 hours. Transfer: CSU, UC; (CAN FCS 2).

2 NUTRITION FOR HUMAN DEVELOPMENT**2 UNITS**

Scientific principles of nutrition in human development. Physiological nutritional needs of the fetus, newborn, early childhood, and adolescence; sociopsychological aspects of eating and promotion of positive eating patterns at each developmental level. 2 hours. Transfer: CSU.

OCEANOGRAPHY

(See Geology)

OFFICE TECHNOLOGY

(See Computer Application Systems)

PHILOSOPHY (PHIL)**1 GOD, NATURE, HUMAN NATURE****3 UNITS**

Nature and range of philosophical inquiry in relation to everyday problems of humans as individuals, as citizen, as existing in nature, and as a creator of works of the arts and of the spirit. Analysis of primary philosophical documents that concentrate on these broad areas of a human's concerns. Introduction to Philosophy by the Philosophers' own works, their methods of procedure and inquiry; attention given to the development of skills for reading, analyzing, and pursuing philosophical argument. NOTE: Philosophy 2, 4 and 25 are also introductory courses and may be taken before Philosophy 1 if a more detailed examination of ethical problems, the theory of knowledge, or political philosophy is desired. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS; (CAN PHIL 2).

2 INTRODUCTION TO PHILOSOPHY: ETHICS**3 UNITS**

Problems of good and evil, right and wrong, individual and/or social action; the principles, criteria or starting points for these issues and decisions as discussed and developed in great writings of the philosophical-literary tradition. 3 hours. Transfer: CSU; CSU/GE: C2; IGETC: Area 3; AA/AS; (CAN PHIL 4)

4 INTRODUCTION TO PHILOSOPHY: THEORY OF KNOWLEDGE **3 UNITS**
 Primary works in the areas of Knowledge, Truth, and Thought. Systematic analysis of documents that constitute the major statements in The Theory of Knowledge; the functions of reasoning, intuition, and sense experience. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS; IGETC: Area 3.

7 CONTEMPORARY PROBLEMS **3 UNITS**
 Perspective on contemporary issues. Defined using contemporary documents as source material and re-defined and evaluated in light of philosophical documents. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.

12 LOGIC I **3 UNITS**
(See also Mathematics 12)
 Introduction to formal deductive logic with emphasis on developing the basic concepts of modern symbolic logic; includes deductive validity, relation of ordinary languages to symbolic logic, distinction between inductive and deductive arguments, relation of truth to validity, uses of truth tables, role of logic in the disciplines of mathematics, philosophy and sciences, rules of inference for propositional logic and first order predicate logic. (May not receive credit if Mathematics 12 has been completed.) 3 hours. Transfer: CSU, UC; CSU/GE: A3; AA/AS; (CAN PHIL 6).

25 INTRODUCTION TO POLITICAL AND SOCIAL PHILOSOPHY **3 UNITS**
 Philosophical-political analysis of value conflicts in the area of political thought and theory. Philosophical investigation of political principles which affect our lives as well as the role of theory in regard to the nature of the individual in a modern technological democracy. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

PHOTOGRAPHY (PHOT)

DEGREE:
AA – PHOTOGRAPHY

CERTIFICATE OF COMPLETION:
PHOTOGRAPHY

This two-year diploma program provides students with a thorough technical knowledge of contemporary photographic applications. Students also become familiar with digital imagery involving scanning and manipulation; and multimedia technology combining sound, text and images.

Time is spent doing practical hands-on work in studios, darkrooms, and computer laboratories. Students gain on-the-job experience working as photographers, photographers' assistants, and electronic imagers.

PHOTOGRAPHY
ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR	FALL	SPRING
Art I (Introduction to Art)	3	
Art 10 (Design and Material)	3	
Photography 50 (Introduction to Photography)	3	
Photography 55 (Careers in Photography) or Art 55 (Introduction to Graphic Design Careers)	1-2	
Photography 60 (Black and White Materials and Processes)	3	
Photography 61 (Color Materials and Processes)	3	

SOPHOMORE YEAR	FALL	SPRING
Photography 64A (Artificial Light Photography)	3	
Photography 62 (Portfolio Workshop)	3	
Photography 66 (Digital Imaging)	3	
Any studio art course	3	
Total	28-29	

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

PHOTOGRAPHY
CERTIFICATE OF COMPLETION

CORE COURSES	FALL	SPRING
Art 10 (Design and Materials)	3	
Photography 50 (Introduction to Photography)	3	
Photography 60 (Black and White Materials and Processes)	3	
Photography 61 (Color Materials and Processes)	3	
Electives	3	
Total	15	

PHOTOGRAPHY (PHOT)

31A PHOTOSHOP I **1 1/2 UNITS**
(See also Architecture 31A, Art 31A, Interior Design 31A)
 Introduction to the use of PhotoShop, the premiere imaging software. Overview of the PhotoShop interface, tools and menus. Projects will focus on using basic tools to compose images. Topics include file management, selections and paths, layers, masks, alpha channels, color management and mapping, digital painting and brushes. Apple Mac platform. May not receive credit if Architecture 31A, Art 31A, or Interior Design 31A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

31B PHOTOSHOP II **1 1/2 UNITS**
(See also Architecture 31B, Art 31B, Interior Design 31B)
 Continuation of the content and skills introduced in Photography 31A, PhotoShop 1. Topics include advanced layer controls, filters, distortion and effects, drawing path tools, alpha channels, and applying text to images. Color management and Mapping. Printing fundamentals. Prerequisite: Photography 31A (completed with a grade of "C" or higher). May not receive credit if Architecture 31B, Art 31B, or Interior Design 31B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32A ILLUSTRATOR I **1 1/2 UNITS**
(See also Architecture 32A, Art 32A, Interior Design 32A)
 Introduction to the use of Illustrator, Adobe's powerful vector-based software for digital illustration. Emphasis on the basics of drawing with the shapes, pen and pencil, transformation and liquefy tools. Palettes for the control of layers, colors, patterns and gradients. Methods for the creative application of text to images. May not receive credit if Architecture 32A, Art 32A, or Interior Design 32A has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

32B ILLUSTRATOR II 1½ UNITS

(See also *Architecture 32B, Art 32B, Interior Design 32B*)

Continuation of the content and skills introduced in Photography 32A, Illustrator I. Paintbrush and pattern tools and palettes, gradient mesh tools, creating and modifying clipping masks will be covered. Exploration of the powerful morphing blends and transparency tools use of symbol tools and palettes, filters and effects, and related appearance and styles palettes. Process of importing and manipulating images as elements of digital compositions. Prerequisite: Photography 32A (*completed with a grade of "C" or higher*). May not receive credit if Architecture 32B, Art 32B, or Interior Design 32B has been completed. 1 hour lecture, 2 hours studio. Transfer: CSU.

33 3-D MODELING WITH FORM•Z 3 UNITS

(See also *Architecture 33, Art 33, Interior Design 33*)

Introduction to 3-dimensional digital modeling using Form•Z software. Emphasis on learning basic commands to create 3-dimensional objects including building interiors and exteriors, and defining photo-realistic views with appropriate light sources. May not receive credit if Architecture 33, Art 33, or Interior Design 33 has been completed. 2 hours lecture, 4 hours studio. Transfer: CSU.

50 INTRODUCTION TO PHOTOGRAPHY 3 UNITS

Introduction to photographic processes and light sensitive materials. Camera controls and their use in making pictures. Developing black and white negatives and prints. Print finishing, presentation, and critique. 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC; AA/AS; (CAN ART 18).

51 INDIVIDUAL PROJECTS 1 UNIT

(May be repeated 3 times)

Individual projects in photography or graphic communications at the intermediate to advanced level. Development of knowledge and skills acquired in previous or current work with emphasis on current projects. Prerequisite: Photography 50 (*completed with a grade of "C" or higher*) and permission of instructor. 4 hours laboratory. Transfer: CSU.

52 BEGINNING CAMERA USE 2 UNITS

Camera handling techniques, basic exposure principles, camera accessories, photographic composition, and slide presentation. May be offered in Distance Education delivery format. 2 hours. Transfer: CSU.

55 CAREERS IN PHOTOGRAPHY 1 UNIT

Opportunities in various areas of photography including commercial, industrial, portraiture, sales, photofinishing; and the investigation of photography as an art form. 1 hour. Transfer: CSU.

60 BLACK AND WHITE MATERIALS AND PROCESSES 3 UNITS

(May be repeated 1 time)

Using exposure/development controls related to black and white negative materials. Development of competent print making skills. Emphasis on visual and critical problems related to black and white photography. Prerequisite: Photography 50 (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours laboratory. Transfer: CSU, UC.

61 COLOR MATERIALS AND PROCESSES 3 UNITS

(May be repeated 1 time)

Understanding theories of exposure, printing, and processing of various color materials. Emphasis on visual problems related to color photography. Prerequisite: Photography 50 (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours laboratory. Transfer: CSU.

62 PORTFOLIO WORKSHOP 3 UNITS

(May be repeated 3 times)

Visual and technical problems of assembling a portfolio. Emphasis on individual projects and the production of a finished portfolio of black and white and/or color images. Prerequisite: Photography 50. Strongly recommended: Photography 60 or 61. 2 hours lecture, 4 hours laboratory. Transfer: CSU.

64A ARTIFICIAL LIGHT PHOTOGRAPHY 3 UNITS

Photography using light sources selected and manipulated by the photographer. Use of light sources in a controlled situation to achieve technically accurate renditions of subject matter and to make successful visual statements. Lighting techniques for product, still life and portrait photography. Prerequisite: Photography 50 (*completed with a grade of "C" or higher*). Strongly recommended: Photography 60 and 61. 2 hours lecture, 4 hours studio/laboratory. Transfer: CSU.

64B COMMERCIAL ILLUSTRATION PHOTOGRAPHY 3 UNITS

Photography as a tool for illustrating ideas and concepts relating to advertising and promotion. Studio and location photography with emphasis on client-photographer relationships. Product and publicity photography; use of medium and large format cameras. Prerequisite: Photography 64A (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours studio/ laboratory. Transfer: CSU.

65 GRAPHIC TECHNIQUES 3 UNITS

(May be repeated 3 times)

Graphic techniques utilizing the photographic image. Techniques of toneline conversion, posterization, and other manipulations of the conventional image, including electronic imaging. Consideration of various photomechanical processes. Prerequisite: Photography 50, (*completed with a grade of "C" or higher*). 2 hours lecture, 4 hours laboratory. Transfer: CSU.

66 DIGITAL IMAGING 3 UNITS

Desktop digital imaging systems and software. Overview of computer operating systems, local area networks, and file management. Methods and devices for image input, storage, and output. Use of traditional photographic controls to enhance image quality in the digital medium. Designing an image for digital manipulation. May be offered in Distance Education delivery format. Strongly recommended: Photography 50. 2 hours lecture, 4 hours laboratory. Transfer: CSU.

67 HISTORY OF PHOTOGRAPHY 3 UNITS

(See also *Art 67*)

A broad chronological survey of photography from its invention to the present. Considers the medium's dual role as technology and art. Addresses a multiplicity of photographic themes and purposes. Considers the intersections of photography and technology, history, art, and everyday life. May not receive credit if Art 67 has been completed. 3 hours. Transfer: CSU; UC; CSU/GE: CI; IGETC: Area 3; AA/AS.

68 COLOR SLIDE PHOTOGRAPHY 2 UNITS

(May be repeated 3 times)

Use of color slides to explore the solution of special technical and visual problems encountered in field shooting. Strongly Recommended: Photography 50. 2 hours. Transfer: CSU.

71 BEGINNING PHOTOJOURNALISM 2 UNITS

(See also *Mass Communications 71*)

Survey of photojournalism as a medium of mass communications. Understanding and applying basic technical and visual skills in the making of successful reportage photographs. Consideration of the work of major twentieth century photojournalists. Strongly recommended: Photography 50 (*completed with a grade of "C" or higher*) or Mass Communications 14 (*completed with a grade of "C" or higher*) with emphasis in photography. (May not receive credit if Mass Communications 71 has been completed.) 1 hour lecture, 3 hours laboratory. Transfer: CSU.

PHYSICAL EDUCATION (PHED)

DEGREE:

AA – PHYSICAL EDUCATION

AS – PHYSICAL EDUCATION

CERTIFICATE OF ACHIEVEMENT:

AQUATICS

COACHING

FITNESS INSTRUCTOR

SPORTS INJURY CARE

CERTIFICATE OF COMPLETION:

AQUATICS

COACHING

FITNESS INSTRUCTOR

SPORTS INJURY CARE

The Physical Education AA degree program is designed for students who want to transfer to a CSU or UC. It provides a rigorous curriculum that will ensure students have met the science and math requirements to enter the CSU and UC Physical Education/ Kinesiology and Exercise Physiology Bachelor of Arts programs. The AS degree and certificate programs help prepare students for physical education careers as well as community based programs.

**PHYSICAL EDUCATION
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR **FALL** **SPRING**

- *Physical Education 1,2,3
(Physical Education Activity) or
Physical Education 4 (Basic Heart
Rate Training) or Physical Education 6
(Physical Fitness Assessments) 1-2 1-2
- Biology 31 (Introduction to College biology) 4
- Physical Education 20
(Introduction to Physical Education) 3
- Anatomy I (General Human Anatomy) 4
- Physical Education 17
(Introduction to Athletic Training) 4

SOPHOMORE YEAR **FALL** **SPRING**

- *Physical Education 1,2,3
(Physical Education Activity) or
Physical Education 4 (Basic Heart
Rate Training) or Physical Education 6
(Physical Fitness Assessments) 1-2 1-2
- Chemistry 30A
(Introduction & Applied Chemistry) 4
- Physiology I (Human Physiology) 5
- Physical Education 8
(Sport in Contemporary Society) or
Physical Education 15 (Peak Performance
through Mental Training) 3
- Total** **31-35**

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required **60**

**Students must take a minimum of one course in each of the four physical education activity areas. 1) Recreation Skills; 2) Aquatics; 3) Body Mechanics; 4) Team Sports. A minimum of 4 units needs to be completed*
**Check requirements of specific university.*

**PHYSICAL EDUCATION
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR **FALL** **SPRING**

- Biology 50 (Anatomy and Physiology) 4
- Physical Education 20
(Introduction to Physical Education) 3
- *Physical Education 1, 2, 3
(Physical Education Activity) or
Physical Education 4 (Basic Heart
Rate Training) or Physical Education
6 (Physical Fitness Assessments) 1-2 1-2
- Health 1 (Introduction to Health) or
Physical Education 18 (Health/Fitness
for Your Disability) 3
- Physical Education 17
(Introduction to Athletic Training) 4

SOPHOMORE YEAR **FALL** **SPRING**

- Nutrition 1 (Basic Nutrition) 3
- *Physical Education 1, 2, 3
(Physical Education Activity) or
Physical Education 4 (Basic Heart
Rate Training) or Physical Education
6 (Physical Fitness Assessments) 1-2 1-2
- Physical Education 22
(Health & Fitness Assessments) or
Physical Education 28 (Components of
Physical Fitness-the Human Body) 3
- Physical Education 8 (Sport in Contemporary
Society) or Physical Education 15 (Peak
Performance through Mental Training) 3
- Physical Education 27 (Principles of Coaching
Interscholastic Sports) 2
- Total** **29-33**

General Education Courses
For specific General Education courses refer to catalog section on
Graduation Requirements.
Total minimum units required **60**

**Students should take a minimum of one course in each of the four physical education activity areas. 1) Recreation Skills; 2) Aquatics; 3) Body Mechanics; 4) Team Sports. A minimum of 4 units needs to be completed.*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except when a prerequisite applies.

AQUATICS

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 20 (Introduction to Physical Education)	3
Physical Education 8 (Sport in Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness – the Human Body)	3
Physical Education 13 (American Red Cross Lifeguard Training Course)	2
Physical Education 14 (Water Safety Instructor)	2
*Physical Education 1,2,3 (Physical Education Activity) or Physical Education 4 (Basic Heart Rate Training) or Physical Education 6 (Physical Fitness Assessments)	5
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Total	23½-23

COACHING

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 20 (Introduction to Physical Education)	3
Physical Education 8 (Sport in Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
Physical Education 23 (Sports Officiating) or Physical Education 16 (College Success for Athletes)	
Physical Education 27 (Principles of Coaching Interscholastic Sports)	2
*Physical Education 1,2,3 (Physical Education Activity) or Physical Education 4 (Basic Heart Rate Training) or Physical Education 6 (Physical Fitness Assessments)	3 2
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Total	21½

FITNESS INSTRUCTOR

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

Physical Education 20 (Introduction to Physical Education)	3
Physical Education 8 (Sport in Contemporary Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Health 1 (Introduction to Health) or Physical Education 18 (Health & Fitness for Your Disability)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
*Physical Education 1,2,3 (Physical Education Activity) or Physical Education 4 (Basic Heart Rate Training) or Physical Education 6 (Physical Fitness Assessments)	2 2
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Nutrition 1 (Basic Nutrition)	3
Biology 50 (Anatomy and Physiology)	4
Physical Education 17 (Introduction to Athletic Training)	4
Total	27½-28

SPORTS INJURY CARE

CERTIFICATE OF ACHIEVEMENT

FALL SPRING

Biology 50 (Anatomy and Physiology) or Physiology 1 (Human Physiology)	4-5
Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Health 1 (Introduction to Health) or Physical Education 18 (Health & Fitness for Your Disability)	3
Nutrition I (Basic Nutrition)	3
*Physical Education 1,2,3 (Physical Education Activity) or Physical Education 4 (Basic Heart Rate Training) or Physical Education 6 (Physical Fitness Assessments)	2 2
Total	21½-23

**Students must take a minimum of one course in each of the four physical education activity areas. 1) Recreation Skills; 2) Aquatics; 3) Body Mechanics; 4) Team Sports.*

The above listing is a suggested sequence only Some courses may have prerequisites. Students may take courses in any sequence except when a prerequisite applies.

AQUATICS

CERTIFICATE OF COMPLETION

FALL SPRING

Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 20 (Introduction to Physical Education) or Physical Education 8 (Sport in Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
Physical Education 13 (American Red Cross Lifeguard Training Course)	2
Physical Education 14 (Water Safety Instructor)	2
Physical Education 1,2,3 (Physical Education Activity)	2
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Total	16½-17½

COACHING

CERTIFICATE OF COMPLETION

FALL SPRING

Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 20 (Introduction to Physical Education) or Physical Education 8 (Sport in Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
Physical Education 23 (Sports Officiating) or Physical Education 16 (College Success for Athletes)	1-2
Physical Education 27 (Principles of Coaching Interscholastic Sports)	2
Physical Education 1,2,3 (Physical Education Activity)	2
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Physical Education 6 (Physical Fitness Assessments)	½
Total	15½-17

FITNESS INSTRUCTOR

CERTIFICATE OF COMPLETION

FALL SPRING

Physical Education 20 (Introduction to Physical Education) or Physical Education 8 (Sport in Contemporary Society) or Physical Education 15 (Peak Performance through Mental Training)	3
Health 1 (Introduction to Health) or Physical Education 18 (Health & Fitness for Your Disability)	3
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
*Physical Education 1,2,3 (Physical Education Activity)	2 2
Health 60 (Responding to Emergencies) or Health 70B (Professional Cardiopulmonary Resuscitation)	½-1
Nutrition 1 (Basic Nutrition)	3
Total	16½-17

SPORTS INJURY CARE

CERTIFICATE OF COMPLETION

FALL SPRING

Biology 50 (Anatomy and Physiology) or Physiology 1 (Human Physiology)	4-5
Physical Education 17 (Introduction to Athletic Training)	4
Physical Education 22 (Health & Fitness Assessments) or Physical Education 28 (Components of Physical Fitness-the Human Body)	3
Health 70B (Professional Cardiopulmonary Resuscitation)	½
Health I (Introduction to Health) or Physical Education 18 (Health & Fitness for Your Disability)	3
Physical Education 1,2,3 (Physical Education Activity)	2
Total	16½-17½

** Students should take a minimum of one course in each of the four physical education activity areas. 1) Recreation Skills 2) Aquatics 3) Body Mechanics 4) Team Sports (a minimum of four units needs to be completed)*

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except when a prerequisite applies.

PHYSICAL EDUCATION (PHED)

1 PHYSICAL EDUCATION ACTIVITY 1/2 UNIT

(Any Physical Education 1, 2 or 3 course may be repeated 3 times)

Physical Education sections are organized to include activities in four areas: (1) Recreation Skills: archery, badminton, bowling, golf-range, golf-course, adv. golf, handball, racquetball, table tennis, tennis, adv. tennis, wallyball; (2) Aquatics: aquatic aerobics, aqua-conditioning, swimming, disabled swimming; (3) Body Mechanics: aerobic fitness, aerobic super circuit, dance aerobics, disabled aerobics, low-impact aerobics, ballet, circuit fitness training, conditioning, dance exercise, dance workshop, disabled P.E., fitness-self defense, disabled flexibility, jazz dance, adv. jazz dance, modern jazz dance, modern dance, nautilus fitness, outdoor aerobics, par-course fitness, power lifting, run/stride fitness, run/walk fitness, self-defense tactics, disabled self-defense, strength fitness, tai chi, tap dance, disabled weight training, weight training, wrestling, yoga; (4) Team Sports: basketball, adv. basketball, disc sports, flag football, soccer, indoor soccer, softball, sport conditioning, volleyball, adv. volleyball, ultimate field sports. 2 hours. Transfer: CSU, UC; CSU/GE: Area E; AA/AS.

2 PHYSICAL EDUCATION ACTIVITY 1 UNIT

(Any Physical Education 1, 2 or 3 may be repeated 3 times)

Physical Education sections are organized to include activities in four areas: (1) Recreation Skills: archery, badminton, bowling, golf course, golf range, advanced golf, handball, racquetball, table tennis, tennis, advanced tennis, wallyball; (2) Aquatics: aquacalsthenics, aqua-conditioning, aquatic aerobics, swimming, disabled swimming; (3) Body Mechanics: aerobic fitness, aerobic super circuit, athletic performance training, dance aerobics, disabled aerobics, low impact aerobics, ballet, conditioning, disabled conditioning, dance workshop, disabled P.E., fitness self defense, disabled flexibility, jazz dance, modern jazz dance, judo, power lifting, run/walk fitness, self-defense tactics, disabled self-defense, strength fitness, tai chi, weight training, disabled weight training; (4) Team Sports: baseball, basketball, adv. basketball, adv. touch football, soccer, indoor soccer, softball, sport conditioning, ultimate field sports, volleyball, adv. volleyball. 3 hours laboratory, or 2 hours lab, 1 hour lecture for 9 weeks. Transfer: CSU, UC; CSU/GE: Area E; AA/AS.

3 PHYSICAL EDUCATION ACTIVITY 1-2 UNITS

(Any Physical Education 1, 2 or 3 course may be repeated 3 times)

Physical Education sections are organized to include activities in four areas: (1) Recreation Skills: archery, badminton, bowling, golf-range, golf-course, adv. golf, handball, racquetball, racquetina, table tennis, tennis, adv. tennis, wallyball; (2) Aquatics: aquatic aerobics, aqua-conditioning, competitive swimming, disabled swimming; (3) Body Mechanics: aerobic fitness, aerobic super circuit, dance aerobics, disabled aerobics, low-impact aerobics, ballet, circuit fitness training, conditioning, dance exercise, dance workshop, disabled P.E., disc sports, fitness-self defense, disabled flexibility, jazz dance, adv. jazz dance, modern jazz dance, modern dance, nautilus fitness, outdoor aerobics, par-course fitness, power lifting, run/stride fitness, run/walk fitness, self-defense tactics, disabled self-defense, strength fitness, tai chi, tap dance, weight training, wrestling, yoga; (4) Team Sports: basketball, adv. basketball, disc sports, flag football, soccer, indoor soccer, softball, sport conditioning, volleyball, adv. volleyball, ultimate field sports. 4-8 hours laboratory, or 3-5 hours lab, 1 hour lecture for 9 weeks. Transfer: CSU, UC; AA/AS.

4 BASIC HEART RATE TRAINING: FITNESS AND TRAINING USING A HEART RATE MONITOR 1 UNIT

(May be repeated 3 times)

Students learn how to improve fitness utilizing pulse and a heart rate monitor. They will learn how to create a balanced life long exercise program using heart rate as a guide. May be offered in distance education delivery format. 3 hours. Transfer: CSU, UC; AA/AS.

5 FAT BURNING CIRCUIT TRAINING 2 UNITS

(May be repeated 3 times)

Develop cardiovascular efficiency, strength, muscular endurance and flexibility through the use of Cybex selector weight machines, Monark stationary bikes and other state-of-the-art equipment. Includes individual fitness prescriptions through assessments. Goal achievement through the use of circuit training. 1/2 hour lecture, 4 1/2 hours laboratory. Transfer: CSU, UC; CSU/GE: E; AA/AS.

6 PHYSICAL FITNESS ASSESSMENTS 1/2 UNIT

(May be repeated 3 times)

Physical Fitness Assessments will measure body composition, flexibility, muscular strength and endurance. Students will develop and understand a summary of their fitness status, as well as an exercise prescription to maintain or increase their physical fitness level. 9 one hour lectures. Transfer: CSU, UC; AA/AS.

7 AEROBIC SUPER CIRCUIT 2 UNITS

(May be repeated 3 times)

Developing cardiovascular efficiency, strength, muscular endurance and flexibility through the use of circuit training. Polar heart rate monitors help students train safely and efficiently in their target heart rate zone. Physical fitness assessment testing and re-testing assist students in establishing appropriate training volumes and intensities. One hour lectures (9 weeks), 4 1/2 hours of laboratory (18 weeks). Transfer: CSU, UC; AA/AS.

8 SPORT IN CONTEMPORARY SOCIETY 3 UNITS

History of sport; the political, social and economic impact of sport on public opinion. An investigation into the phenomenon of sport including cultural stratification, race, gender, education, economic, politics and the mass media. May be offered in Distance Education delivery format. 3 hours lecture. Transfer: CSU.

12 TENNIS SKILLS PROFICIENCY LAB 2 UNITS

(May be repeated 3 times)

Basic concepts of organization and instruction of tennis on the recreational level. Designed to increase proficiency in the basic skills of tennis and enable the demonstration of those skills to others. Prerequisite: Intermediate skill level. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: Area E; AA/AS.

13 AMERICAN RED CROSS LIFEGUARD TRAINING 2 UNITS

(May be repeated 3 times)

Skills and knowledge needed to prevent and respond to aquatic emergencies. Upon successful completion of this course students will receive American Red Cross certification in Lifeguard Training, CPR for the Professional Rescuer, and First Aid. 1 1/2 hours lecture, 1 1/2 hours laboratory. Transfer: CSU, UC; AA/AS.

13R AMERICAN RED CROSS LIFEGUARD TRAINING REVIEW 1/2 UNIT

(May be repeated 3 times)

To review the skills and knowledge needed by lifeguards to prevent and respond to aquatic emergencies. Upon successful completion of this course students will receive American Red Cross certification in Lifeguard Training, CPR for Professional Rescuer, and First Aid. 6 hours lecture, 10 hours laboratory total. Transfer: CSU, UC; AA/AS

14 AMERICAN RED CROSS WATER SAFETY INSTRUCTOR 2 UNITS

(May be repeated 3 times)

To train instructor candidates to teach American Red Cross Swimming and Water Safety courses. Provide water safety certificate. 1 1/2 hours lecture, 1 1/2 hours laboratory. Transfer: CSU, UC; AA/AS

15 PEAK PERFORMANCE THROUGH MENTAL TRAINING 3 UNITS

The study and development of the concepts and theories associated with maximizing performance, from the perspective of sport as well as life, emphasizing the mental skills and strategies for stress control, visualization, goal setting and concentration. 3 hours. Transfer: CSU; CSU/GE: Area E.

16 COLLEGE SUCCESS FOR ATHLETES 1 UNIT

Aiding the student-athlete in developing realistic expectations of college, explore academic programs, and understand what is necessary to succeed in college while competing in an intercollegiate sport. Rules and regulations of the Commission on Athletics (COA), National Collegiate Athletic Association (NCAA), and National Association of Intercollegiate Athletics (NAIA) will be defined. Eligibility and transferring to a four-year institution will be explored. May be offered in Distance Education delivery format. 1 hour. Transfer: CSU.

17 INTRODUCTION TO ATHLETIC TRAINING 4 UNITS

This course introduces the student to basic taping skills, therapeutic modalities, and rehabilitation principles associated with the field of athletic training. There is a strong emphasis on injury prevention recognition and management. Designed to be preparatory for a career in athletic training. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: E; AA/AS.

18 HEALTH AND FITNESS FOR YOUR DISABILITY 3 UNITS

Application of current health teachings to individuals and life. Physiological, psychological, and social perspectives of health will be covered. Emphasis on knowledge, attitudes and behaviors that will contribute to a healthy individual. Combination of text based curriculum with Internet research. Students will learn how to integrate current health teachings in relation to their disability and their lives. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

20 INTRODUCTION TO PHYSICAL EDUCATION 3 UNITS

Survey of physical education with emphasis on basic elements, foundations career opportunities, and the relationship of physical education to other fields. 3 hours. Transfer: CSU, UC; CSU/GE: E.

22 HEALTH AND FITNESS ASSESSMENTS 3 UNITS

Discuss and analyze various health and fitness assessment tools including those used to evaluate aerobic fitness, muscular strength and endurance, flexibility, stress and nutrition. Emphasis will be on developing baseline assessments for use in fitness program development. Students will apply their learning to the creation of a well-rounded fitness program and reevaluate fitness variables after developing a healthy fitness program. Class is appropriate to those working in the fitness field as well as individuals interested in improving their own health and fitness. 3 hours. Transfer: CSU, UC; CSU/GE: E.

23 SPORTS OFFICIATING 2 UNITS

(May be repeated 3 times)

Theory and practical application of sports officiating with emphasis on the rules, techniques and mechanics of officiating. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC.

25 THEORY & TECHNIQUES OF OFFENSIVE FOOTBALL 2 UNITS

(May be repeated 2 times)

Analysis and examination of various approaches to offensive intercollegiate football. Includes all aspects of offensive football; punt return, point after touchdown and field goal kicking. 2 hours. Transfer: CSU, UC; CSU/GE: E.

26 THEORY & TECHNIQUES OF DEFENSIVE FOOTBALL 2 UNITS

(May be repeated 2 times)

Analysis and examination of various approaches to defensive intercollegiate football. Includes all aspects of defensive football; kick off, punt rush, punt return and P.A.T./FG rush. 2 hours. Transfer: CSU, UC; CSU/GE: E.

27 PRINCIPLES OF COACHING INTERSCHOLASTIC SPORTS 2 UNITS

(May be repeated 3 times)

Theory, principles, and ethics of coaching interscholastic sports with emphasis on the fundamentals and techniques of coaching. Course completion certificate available upon completion *(with a grade of "C" or higher)*. May be offered in Distance Education delivery format. 2 hours lecture, 1 hour laboratory. Transfer: CSU, UC; CSU/GE: E.

28 COMPONENTS OF PHYSICAL FITNESS-THE HUMAN BODY 3 UNITS

Impact of physical activity, nutrition, and dietary principles upon the body. Includes basic exercise physiology and kinesiology, body mechanics, and body composition testing. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU.

30 INTERCOLLEGIATE ATHLETICS-FOOTBALL 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

31 INTERCOLLEGIATE ATHLETICS-BASKETBALL 1 UNIT

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 5 hours weekly. Transfer: CSU, UC; CSU/GE: Area E; AA/AS.

32 INTERCOLLEGIATE ATHLETICS-BASEBALL 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

33 INTERCOLLEGIATE ATHLETICS-GOLF 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Practice three days per week, 10 hours weekly. Transfer: CSU, UC; CSU/GE: Area E; AA/AS.

34 INTERCOLLEGIATE ATHLETICS-TENNIS 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

35 INTERCOLLEGIATE ATHLETICS-TRACK AND FIELD 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

36 INTERCOLLEGIATE ATHLETICS-CROSSCOUNTRY 2 UNITS

(May be repeated 2 times)

Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

- 37 INTERCOLLEGIATE ATHLETICS- SWIMMING AND DIVING 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 38 INTERCOLLEGIATE ATHLETICS-SOCCER 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 39 INTERCOLLEGIATE ATHLETICS-WRESTLING 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 41 INTERCOLLEGIATE ATHLETICS- WOMEN'S BASKETBALL 1 UNIT**
(May be repeated 2 Times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 5 hours weekly. Transfer: CSU, UC; CSU/GE: E; M/AS.
- 42 INTERCOLLEGIATE ATHLETICS- WOMEN'S SOFTBALL 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 43 INTERCOLLEGIATE ATHLETICS- WOMEN'S VOLLEYBALL 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 44 INTERCOLLEGIATE ATHLETICS- WOMEN'S TENNIS 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 45 INTERCOLLEGIATE ATHLETICS- WOMEN'S TRACK & FIELD 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 46 INTERCOLLEGIATE ATHLETICS- WOMEN'S CROSS COUNTRY 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 47 INTERCOLLEGIATE ATHLETICS- WOMEN'S SWIMMING & DIVING 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.

- 48 INTERCOLLEGIATE ATHLETICS- WOMEN'S SOCCER 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU, UC; CSU/GE: E; AA/AS.
- 50 INTERCOLLEGIATE ATHLETICS- WOMEN'S WATER POLO 2 UNITS**
(May be repeated 2 times)
 Training for intercollegiate competition. Corequisite: Physical Education 2APT (Athletic Performance Training). Daily practice, 10 hours weekly. Transfer: CSU; CSU/GE: Area E: AA/AS.

PHYSICAL EDUCATION FOR THE DISABLED

The division will offer classes in aquatics, body mechanics and fitness. Please check the class schedule for the activity of your choice.

PHYSICAL SCIENCE (PSCI)

- 15 DESCRIPTIVE PHYSICAL SCIENCE: INTRODUCTION TO PRINCIPLES OF PHYSICAL SCIENCE 5 UNITS**
 An introduction to the physical universe from atomic particles to the stars, with emphasis on the basic principles of physics, astronomy, chemistry, and the geo-sciences (meteorology and geology). Designed for non-majors in physical science. Includes an introduction to laboratory, principles and techniques with emphasis on the basic concepts discussed in the class. May not receive credit if Physics 11 has been completed. Strongly recommended: Mathematics 65, English 101A or 102. 4 hours lecture, 3 hours laboratory. Transfer: CSU; CSU/GE: B1 only; AA/AS.

PHYSICS (PHYS)

**DEGREE:
AS – PHYSICS**

Physics, the fundamental science, conceptualizes the basic principles of the universe and establishes the foundation for astronomy, chemistry and geology. The beauty of physics lies in a small number of powerful concepts which expand our view of the world around us and which lead to many engineering applications from which we derive many benefits.

**PHYSICS
TRANSFER PROGRAM AND
ASSOCIATE IN SCIENCE DEGREE**

FRESHMAN YEAR	FALL	SPRING
Mathematics I (Calculus I)	5	
Mathematics 2 (Calculus II)	5	
Physics 4A (General Physics I)	5	

SOPHOMORE YEAR	FALL	SPRING
Mathematics 3 (Multivariable Calculus)	5	
Physics 4B (General Physics II)	5	
Mathematics 4 (Elementary Differential Equations)	3	
Physics 4C (General Physics III)	5	
Total	33	

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required 60

If the A.S. degree is meant to encourage and prepare students for further study in their chosen field, we believe that we should include the mathematics requirement as well as the complete physics plan. Students majoring in physics will be expected to take at least Mathematics 1-4 and also recommended Mathematics 6 and 8.

PHYSICS (PHYS)

2A INTRODUCTION TO PHYSICS I 4 UNITS

Introduction to the major principles of classical mechanics and electricity using pre-calculus mathematics. Includes Newtonian mechanics, energy, gravitation, fluids, thermodynamics, vibration waves, and electrostatics. Prerequisite: Mathematics 20 or 36 or 37 (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC Area 5A & Lab; AA/AS; (CAN PHYS 2); with PHYS 2B: (CAN PHYS SEQ A).

2B INTRODUCTION TO PHYSICS II 4 UNITS

Electro-circuits, electromagnetic waves, optics and modern physics. Prerequisite: Physics 2A (*completed with a grade of "C" or higher*). 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; (CAN PHYS 4); with PHYS 2A: (CAN PHYS SEQ A).

4A GENERAL PHYSICS I 5 UNITS

Introduction to the principles of Newtonian mechanics using calculus as needed. Vectors, kinematics, dynamics, energy, momentum, rotation, oscillations, gravitation, fluids and waves. Prerequisite: Mathematics I (*completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 4 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS; (CAN PHYS 8); with PHYS 4B and PHYS 4C: (CAN PHYS SEQ C).

4B GENERAL PHYSICS II 5 UNITS

Thermodynamics, electric fields, electric currents, magnetic fields, and induced currents. Prerequisite: Physics 4A and Mathematics 2 (*both completed with a grade of "C" or higher*). May be offered in Distance Education delivery format. 4 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A Lab; (CAN PHYS 12); with PHYS 4A and PHYS 4C: (CAN PHYS SEQ C).

4C GENERAL PHYSICS III 5 UNITS

Study of electromagnetic spectrum including reflection, refraction, diffraction, interference, polarization, relativity, and modern physics. Prerequisite: Physics 4B and Mathematics 3 (*both completed with a grade of "C" or higher*). 4 hours lecture, 3 hours laboratory. Transfer: CSU, UC; IGETC: Area 5A & Lab; (CAN PHYS 14) with PHYS 4A and PHYS 4B: (CAN PHYS SEQ C).

11 DESCRIPTIVE PHYSICS 4 UNITS

Motion, gravitation, heat, light, sound, electricity, magnetism, atoms, and nuclei. Present day scientific problems and developments such as alternative energy sources, solar energy, nuclear power, lasers, relativity and black holes. Designed for non-majors in physical science. Includes an introduction to laboratory, principles and techniques with emphasis on the basic concepts discussed in the class. May not receive credit if Physics 10 or Physics 10L has been completed. Strongly recommended: Mathematics 105 or 105L. 3 hours lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: B1, B3; IGETC: Area 5A & Lab; AA/AS.

18 PREPARATORY PHYSICS 3 UNITS

Basic problem solving techniques in mechanics as preparation for Physics 2A and Physics 4A. Methods and strategies used to solve quantitative Physics problems. Intended for liberal arts, mathematics, engineering, and science students. Emphasis on group problem-solving activities, diversity in problem-solving approaches, and detailed oral and written presentation of solutions. Strongly recommended: Math 36 or Math 37 (*completed with a grade of "C" or higher*) or equivalent. 3 hours. Transfer: CSU

22A CALCULUS APPLICATIONS FOR COLLEGE PHYSICS 1 UNIT

The first of a two-part sequence using calculus as a tool for understanding topics covered in college level physics. Taken concurrently with Physics 2A to satisfy the physics requirement for life science majors at universities that require a calculus-based physics sequence. Corequisite: Physics 2A. Strongly Recommended: Concurrent enrollment in Mathematics I, 2, or 3. 1 hour Transfer: CSU, UC.

22B CALCULUS APPLICATIONS FOR COLLEGE PHYSICS 1 UNIT

The second of a two-part sequence using calculus as a tool for understanding topics covered in college level physics. Taken concurrently with Physics 2B to satisfy the physics requirement for life science majors at universities that require a calculus-based physics sequence. Prerequisite: Physics 22A. Corequisite: Physics 2B. Strongly Recommended: Concurrent enrollment in Math 1, 2, or 3. 1 hour. Transfer: CSU, UC.

122 PHYSICS SUPPLEMENTAL INSTRUCTION 1/2 -1 UNIT

An individualized course with tutorial assistance from an instructor, student tutor, in basic Physics computations designed to develop self-confidence and prepare the student for problem solving in the normal navigation of physics courses. 1 1/2-3 hours

PHYSIOLOGY

(See Biological Sciences)

POLITICAL SCIENCE (POLI)

1 INTRODUCTION TO UNITED STATES, CALIFORNIA AND LOCAL GOVERNMENT 3 UNITS

Introduction to United States, California and local governments: constitutions, institutions, issues and federal/state relations. Strongly recommended: Eligibility for English 1A. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D8, A1, Group A; IGETC: Area 4; AI, Group A; AA/AS; CAN GOVT 2).

12 INTRODUCTION TO CALIFORNIA STATE AND LOCAL GOVERNMENT 3 UNITS

Organization and operation of government and politics at the state, county and municipal level; emphasis on current issues and the influences of historical, geographical, political, economic and social factors on public policy. 3 hours. Transfer: CSU; CSU/GE: D8, AI, Group B; IGETC: AI, Group B; AA/AS.

20 COMPARATIVE GOVERNMENT 3 UNITS

Contemporary forms of government, institutions and political problems of selected national governments. Strongly Recommended: Political Science 1 or 7. 3 hours. Transfer: CSU, UC; CSU/GE: D8, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

25 INTRODUCTION TO POLITICAL THEORY 3 UNITS

Various theoretical approaches to politics including selected aspects of political thought from ancient times to the present with application to current political thought. Strongly recommended: Eligibility for English 1A, Political Science 1 or 7. 3 hours. Transfer: CSU, UC; CSU/GE: D8, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

30 INTERNATIONAL RELATIONS 3 UNITS

Introduction to international relations, politics, theories and institutions with an emphasis on contemporary practices. 3 hours. Transfer: CSU, UC; CSU/GE: D8, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

40 CONTEMPORARY ISSUES IN AMERICAN POLITICS 3 UNITS

Introduction to current political issues; their historical, and economic causes; and the public policies which have been advanced to solve these issues. Emphasis on decision-making process of government and voluntary organizations. 3 hours. Transfer: CSU, UC; CSU/GE: D8, AI, Group B; IGETC: Area 4, AI, Group B; AA/AS.

45 SELECTED TOPICS IN POLITICAL SCIENCE 2-3 UNITS

An examination of a current topic/issue in Political Science, including such areas as international relations, economic/social policy issues, comparative government, elections and political parties, political theory and American foreign affairs, with emphasis on an examination of public policy alternatives. Topics/areas of study will vary with class offering, designed to meet the interests of students. Recommended: A college course in political science and/or American History. 2-3 hours. Transfer: UC.

PORTUGUESE

(See Foreign Languages)

PSYCHOLOGY (PSYC)**1 GENERAL PSYCHOLOGY 3 UNITS**

Basic psychological concepts underlying human and animal behavior in such areas as learning, motivation, perception, personality and social behavior. Strongly recommended: Eligibility for English 1A. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D9; IGETC: Area 4; AA/AS; (CAN PSYC 2).

2 INTRODUCTION TO PSYCHOLOGICAL METHODOLOGY 3 UNITS

Introduction to scientific method in the study of human and animal behavior. Experience in designing, performing, and reporting behavioral science experiments and surveys. Includes fundamentals of research design, hypothesis testing, and reasoning in inferential statistics. Strongly Recommended: Psychology 1. 3 hours. Transfer: CSU, UC; CSU/GE: B2, D9; IGETC: Area 4; AA/AS; (CAN PSY 8)

3 SOCIAL PSYCHOLOGY 3 UNITS

Research and theory regarding psychological processes within individuals such as attitudes, perception, cognition that influence or are influenced by the physical setting in which they occur and the social groups to which individuals belong. Strongly recommended: Psychology 1 or Sociology 1, or Anthropology 3. 3 hours. Transfer: CSU, UC; CSU/GE: D9; IGETC: Area 4; AA/AS.

4 BRAIN, MIND, AND BEHAVIOR 3 UNITS

Introduction to the field of biopsychology. Use of the brain to describe cognitive, emotional, and social behavior. Includes the processes of emotion, learning, and memory as interactions between brain and environment; the brain's role in learning disabilities, developmental disorders, and abnormal behavior. Examination of information and theory for practical application. Strongly Recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: D9.

5 INTRODUCTORY STATISTICS FOR THE BEHAVIORAL SCIENCES 4 UNITS

Applied descriptive statistics: measures of central tendency and variability; correlation and regression; probability; introduction to statistical inference. Emphasis on selection and interpretation of statistical analyses. Strongly recommended: Mathematics 65 or 65B. 4 hours. Transfer: CSU; AA/AS.

6 ABNORMAL PSYCHOLOGY 3 UNITS

Introduction to problems in emotional and cognitive human behavior ranging from mild social and personal stress to profound personal disorganization. Includes history of treatment and diagnostic models, neuroses, psychoses, sexual dysfunction, anti-social personality and other psychological problems along with a comparative study of contemporary treatment procedures applied to these problems. Strongly recommended: English 1A or 52A. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D9; IGETC AREA 4; AA/AS.

7 INTRODUCTION TO COUNSELING THEORY AND SKILLS 3 UNITS

Introduction to counseling theory and process with emphasis on fundamental principles of behavior change. Includes essential counseling skills, major counseling theories, and legal and ethical issues. Strongly recommended: Psychology 1. 3 hours. Transfer: CSU.

8 HUMAN SEXUALITY 3 UNITS

(See also Health 8 or Sociology 8.)

Physiological and psychosocial aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual well-being and sexual integrity. May not receive credit if Health 8 or Sociology 8 has been completed. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

12 LIFE-SPAN PSYCHOLOGY 3 UNITS

Introduction to the psychological, physiological, socio-cultural and sociohistorical factors influencing development from conception through death. Emphasis on the process of normal development and its variations. Examination of theoretical models and research for practical application. 3 hours. Transfer: CSU; CSU/GE: E; AA/AS.

18 PSYCHOLOGY OF THE AFRICAN AMERICAN EXPERIENCE 3 UNITS

Psycho-sociological exploration of the African American experience in American society and resultant behavior. 3 hours. Transfer: CSU, UC; IGETC AREA 4; AA/AS.

25 STRESS MANAGEMENT AND HEALTH PSYCHOLOGY 2 UNITS

Analysis of the psychological factors that influence health, stress and illness, and personal well-being. Explores coping with stress, reducing stress, emotion and illness, pressure-cooked kids, children and stress, can't slow down, the mind as healer, the relaxation response, focusing mind, and maximizing performance. May be offered in Distance Education delivery format. 2 hours. Transfer: CSU

25L STRESS MANAGEMENT AND HEALTH PSYCHOLOGY LABORATORY 1/2 UNIT

Using a scientific approach to the study of stress management, this laboratory will introduce students to current stress reduction techniques used in the field of health psychology. An analysis of the mental, physiological, and nutritional factors which help produce optimal-personal performance in daily living activities will be investigated. Prerequisite: Completion or current enrollment in Psychology 25. May be offered in Distance Education delivery format. 1 hour laboratory.

33 PERSONAL AND SOCIAL ADJUSTMENT 3 UNITS

Personality and behavior theory, personality assessment, and techniques of increasing personal effectiveness; basic human nature and the development of human potentialities through genetic inheritance, maturation and learning in a physical and socio-cultural environment; dynamics of individual and group behavior, motivation, stress, adjustive and maladjustive behavior and group and individual interaction. Strongly recommended: English 1A or 52A. 3 hours. Transfer: CSU, UC; CSU/GE: D9; IGETC Area 4; AA/AS.

43 INTRODUCTION TO GROUP DYNAMICS 3 UNITS

Basic theories and concepts of group behavior and interpersonal processes. Analysis of and experiences in actual situations of group interactions. 3 hours. Transfer: CSU, UC; CSU/GE: D9; IGETC: Area 4.

45 PSYCHOLOGY OF CREATIVITY 3 UNITS

Introduction to psychological processes involved in creativity, imagination and problem solving. Survey of current theories and research on creativity in such areas as cognitive processes, perceptions, motivation and personality. Emphasis on improving creative and problem solving abilities. 3 hours. Transfer: CSU; CSU/GE: E; AA/AS.

PSYCHOLOGY COUNSELING (PSCN)

**CERTIFICATION OF COMPLETION:
MULTICULTURAL AWARENESS/
RELATIONS FOR THE SERVICE PROVIDER
MULTICULTURAL AWARENESS/
SELF REFLECTION**

**MULTICULTURAL
AWARENESS/RELATIONS
FOR THE SERVICE PROVIDER
CERTIFICATE OF COMPLETION**

This certificate has been designed to provide students an introduction to multicultural theory and Psychology-Counseling skills needed to work as a service provider in a social setting. The student will conduct a self-assessment and self-reflection component, as part of the skill set. A self-assessment needs to be made in relationship to the culturally diverse community and world in which we currently live but also to evaluate service providers' internalized values which may affect their provision of services in a non-judgmental process. Students completing this Certificate of Completion will investigate a variety of multicultural issues and concepts which can affect social service delivery, evaluate themselves within the context of the diverse culture, further their inquiry into a cultural area of personal interest, and complete a course specifically targeted to Psychology-Counseling issues/skills as they relate to a multicultural community.

CORE COURSES	FALL	SPRING
Psychology Counseling 13 (Multicultural Issues in Contemporary America)		3
Self Assessment/Self Reflection Course(s)*		3
Option Course**		3
Psychology-Counseling 11 (Interpersonal Relationships)		2
Psychology-Counseling 4 (Multiethnic/Cultural Communication) or Speech 11 (Intercultural Communication).		3
Psychology-Counseling 1 (Introduction to Psychology-Counseling in a Multicultural Environment) or Psychology 7 (Introduction to Counseling Theory and Skills)		3
Total		17

- *Select a total of 3 units from the following*
- Psychology-Counseling 10 (Career and Educational Planning) (2 units)*
 - Psychology-Counseling 10A (Career Assessment Through Testing) (1 unit)*
 - Psychology-Counseling 12 (Self Esteem for Success) (2 units)*
 - Psychology-Counseling 15 (College Study Skills) (2 units)*
 - Psychology-Counseling 16 (College and the Re-entry Woman) (3 units)*
 - Psychology-Counseling 17 (Intercultural Studies) (2 units)*
 - Psychology-Counseling 26 (College Success and the Chicano Experience) (1 unit)*
 - Psychology-Counseling 36 (Women in Transition) (1 unit)*

- **Select a total of 3 units from the following options:*
- Anthropology 3 (Social and Cultural Anthropology) (3 units)*
 - Anthropology 5 (Cultural Pluralism: Anthropological Perspectives of Race, Class, Gender and Ethnicity) (3 units)*
 - Early Childhood Development 60 (Teaching Special Needs Infants and Preschoolers) (3 units)*
 - English 21 (The Evolution of the Black Winter) (3 units)*
 - English 22 (Mexican American/Latino Literature of the U S) (3 units)*
 - English 32 (U S Womens Literature) (3 units)*
 - English 38 (Survey of Modern British Literature) (3 units)*
 - Foreign Language 1A (Beginning Foreign Language) (5 units)*
 - Health 4 (Women and Health) (3 units)*
 - Music 5 (American Cultures in Music) (3 units)*
 - Psychology 6 (Abnormal Psychology) (3 units)*

<i>Psychology 12 (Life Span Psychology)</i>	(3 units)
<i>Psychology 18 (Psychology of the African American Experience)</i>	(3 units)
<i>Sign Language 64 (ASL Beginning Sign Language)</i>	(3 units)
<i>Sociology 3 (American Cultural and Racial Minorities)</i>	(3 units)
<i>Sociology 4 (Marriage and Family Relations)</i>	(3 units)
<i>Sociology 8 or Psychology 8 or Health 8 (Human Sexuality)</i>	(3 units)
<i>Sociology 10 (Instruction to Asian-American Studies)</i>	(3 units)
<i>Sociology 30 (Social Gerontology)</i>	(3 units)
<i>Sociology 31 (Dependency in Old Age)</i>	(3 units)
<i>Sociology 32 (Social Policy, Programs and Services for Elders)</i>	(2 units)
<i>Sociology 33 (Sociobiology of Aging)</i>	(3 units)

**MULTICULTURAL
AWARENESS/SELF-REFLECTION
CERTIFICATE OF COMPLETION**

This certificate has been designed to provide individual students the opportunity to conduct self-assessment and self-reflection as part of a personal development plan. The self must be analyzed in context of the community at large, which is becoming more diverse and multicultural. Hence, a self-assessment needs to be made in relationship to the culturally diverse community and world in which we currently live. Students completing this Certificate of Completion will be exposed to a variety of multicultural issues and concepts, evaluate themselves within the context of the diverse culture and further their inquiry into a cultural area of personal interest to the student.

CORE COURSES	FALL	SPRING
Psychology-Counseling 13 (Multicultural Issues in Contemporary America)		3
Self- Assessment/Self-Reflection Courses*		4
Option Course(s)**		5
Psychology-Counseling 11 (Interpersonal Relationships)		2
Psychology-Counseling 4 (Multiethnic/Cultural Communication) or Speech 11 (Intercultural Communication)		3
Total		17

*Select a total of 4 units from the following

<i>Psychology-Counseling 10 (Career and Educational Planning)</i>	(2 units)
<i>Psychology-Counseling 10A (Career Assessment Through Testing)</i>	(1 unit)
<i>Psychology-Counseling 12 (Self Esteem for Success)</i>	(2 units)
<i>Psychology-Counseling 15 (College Study Skills)</i>	(2 units)
<i>Psychology-Counseling 16 (College and the Re-entry Woman)</i>	(3 units)
<i>Psychology-Counseling 17 (Intercultural Studies)</i>	(2 units)
<i>Psychology-Counseling 26 (College Success and the Chicano Experience)</i> (1 unit)	
<i>Psychology-Counseling 36 (Women in Transition)</i>	(1 unit)

**Select a total of 5 units from the following options:

<i>Anthropology 3 (Social and Cultural Anthropology)</i>	(3 units)
<i>Anthropology 5 (Cultural Pluralism: Anthropological Perspectives of Race, Class, Gender and Ethnicity)</i>	(3 units)
<i>Early Childhood Development 60 (Teaching Special Needs Infants and Preschoolers)</i>	(3 units)
<i>English 21 (The Evolution of the Black Writer)</i>	(3 units)
<i>English 22 (Mexican American/Latino Literature of the U.S.)</i>	(3 units)
<i>English 32 (U. S. Women's Literature)</i>	(3 units)
<i>English 38 (Survey of Modern British Literature)</i>	(3 units)
<i>Foreign Language 1A (Beginning Foreign Language)</i>	(5 units)

<i>Health 4 (Women and Health)</i>	(3 units)
<i>Music 5 (American Cultures in Music)</i>	(3 units)
<i>Psychology 6 (Abnormal Psychology)</i>	(3 units)
<i>Psychology 12 (Life Span Psychology)</i>	(3 units)
<i>Psychology 18 (Psychology of the African American Experience)</i>	(3 units)
<i>Sign Language 64 (ASL Beginning Sign Language)</i>	(3 units)
<i>Sign Language 65 (ASL Intermediate Sign Language)</i>	(3 units)

**Select a total of 4 units from the following

<i>Sociology 3 (American Cultural and Racial Minorities)</i>	(3 units)
<i>Sociology 4 (Marriage and Family Relations)</i>	(3 units)
<i>Sociology 8 or Psychology 8 or Health 8 (Human Sexuality)</i>	(3 units)
<i>Sociology 10 (Introduction to Asian-American Studies)</i>	(3 units)
<i>Sociology 30 (Social Gerontology)</i>	(3 units)
<i>Sociology 31 (Dependency in Old Age)</i>	(3 units)
<i>Sociology 32 (Social Policy, Programs and Services for Elders)</i>	(2 units)
<i>Sociology 33 (Sociobiology of Aging)</i>	(3 units)

PSYCHOLOGY-COUNSELING (PSCN)

1 INTRODUCTION TO PSYCHOLOGY-COUNSELING IN A MULTICULTURAL ENVIRONMENT 3 UNITS

Introduction to psychology-counseling theory, skills, techniques, and processes in working with individuals and/or groups. Multiculturalism in American society. Emphasis placed on issues and processes of a minority-majority environment. Includes review of demographics, social services, community agencies, and intervention programs. Fundamental counseling techniques, counseling theory and socio-cultural issues related to working in the "service provider" role. Strongly recommended: eligibility for English 1A and completion of Psychology-Counseling 13. 3 hours. Transfer: CSU; CSU/GE: D7; AA/AS.

4 MULTIETHNIC/CULTURAL COMMUNICATION 3 UNITS

Exploration of intercultural and interethnic individual behavior in relationships and the communication between and within at least three of five (5) cultural/ethnic groups in the United States: (1) African-Americans, (2) Asian-Americans, (3) Native/Indigenous Americans, (4) Pacific Islander-Americans, (5) Hispanic-Americans. Ethnic/cultural social norms influencing interpersonal communication. Antecedents of successful and failed interpersonal ethnic/cultural communication styles and increase understanding of these styles. Significant practice and discussion of individual/group communication styles. Development of individual communication styles between individuals in dominant and emerging subcultures that inhibit individual goal achievement. Use of social science methods of inquiry in interpersonal communication as it applies to successful functioning in and between individuals of different ethnic/ cultural groups. 3 hours. Transfer: CSU; CSU/GE: D3; AA/AS.

7 CONTEMPORARY ISSUES 1-3 UNITS
(May be repeated 3 times)

Contemporary life issues related to social effectiveness, and educational and career development. Explores issues through an examination of current counseling related research findings and resource materials. Limit of 6 units. 1-3 hours. Transfer: CSU.

10 CAREER AND EDUCATIONAL PLANNING 2 UNITS

Exploration of the concept of educational/career planning focusing on personal career development through self-assessment, psychological testing, and individual counseling. Emphasis on clarification of individual interests, values, needs, and abilities and investigation of occupational opportunities in the world of work. Designed for those undecided or uncertain about their career and educational plans. (May not receive credit if Psychology-Counseling 10A or 10B has been completed.) 2 hours. Transfer: CSU; CSU/GE: E.

10A CAREER ASSESSMENT THROUGH TESTING 1 UNIT
Exploration of career values, interests, and skills through the use of various career assessment instruments. Administration, interpretation and analysis for the purpose of assessing abilities, values, personalities and interests. Includes the setting of realistic personal career goals and objectives. 1 hour. Transfer: CSU.

10B WORLD OF WORK/ JOB SEARCH TECHNIQUES 1 UNIT
Investigation of occupational opportunities in the world of work. This includes career trends for the 21st century and practical step-by-step techniques and strategies for planning and organizing an effective job search. Emphasis on developing strategies to deal with job market research, employer contact, resumes and applications, and job interviews. 2 hours. Total 9 weeks. Transfer: CSU.

11 INTERPERSONAL RELATIONSHIPS 2 UNITS
(May be repeated 1 time)
Exploration of behavior in interactions with others. Improving interpersonal relationships to benefit academic, career, and personal development. 2 hours. Transfer: CSU; CSU/GE: E.

12 SELF-ESTEEM FOR SUCCESS 2 UNITS
Exploration of causes of low self-esteem, methods for building self-esteem and habits for success. Designed to improve self-esteem to ensure academic success. 2 hours. Transfer: CSU.

13 MULTICULTURAL ISSUES IN CONTEMPORARY AMERICA 3 UNITS
Exploration of issues relating to the multicultural community in which we live today. Interpersonal relations and communication. Focus on improving the individual's understanding of other cultures and how those cultures impact the American lifestyle. Includes exploration of myths and misunderstandings. Discussion of four specific cultures or sub-cultures from the following groups: (1) African-American, (2) Asian-American, (3) Hispanic-American, (4) Native-American, (5) Middle Eastern-American, (6) European-American, (7) Gay/Lesbian American, (8) Disabled American. 3 hours. Transfer: CSU, UC; CSU/GE: D7; IGETC: Area 4; AA/AS.

15 COLLEGE STUDY SKILLS 2 UNITS
Review of study skill techniques for success in college. Emphasis on time management, personal learning style, active listening, note-taking and test-taking strategies. Includes modeling, practice, and evaluation of study skill techniques. 2 hours. Transfer: CSU.

16 COLLEGE AND THE RE-ENTRY WOMAN 3 UNITS
Exploration of educational opportunities, career possibilities, and personal goals in relation to the re-entry woman, her family responsibilities, and relationships. Designed for the re-entry woman who is beginning or returning to college. 3 hours. Transfer: CSU; CSU/GE: E.

17 INTERCULTURAL STUDIES 2 UNITS
Exploration of the complexities of intercultural and intracultural relationships in this pluralistic society. Includes opportunities to share cultural experiences, as well as differences and commonalities. Explores issues of self-identify, values, cultural differences, and socialization practices. 2 hours. Transfer: CSU.

18 UNIVERSITY TRANSFER PLANNING 1/2 - 1 UNIT
Introduction to the resources and planning process needed to ease transition from a community college to a four-year college or university. Development of a transfer action plan. Preparation for major and general education requirements. Application cycles and important deadlines. Recommended for those transferring to four-year colleges or universities. 1/2-1 hour. Transfer: CSU.

20 THE COLLEGE EXPERIENCE 2 UNITS
(May be repeated 1 time)

Explores academic programs, college policies, student rights and responsibilities, graduation and transfer requirements, student services, campus resources and activities. Designed for first-time, returning, and re-entry students to ease transition into college and maximize successful matriculation through college towards academic/vocational goals. (May not be taken for credit if General Studies 20 has been completed.) May be offered in Distance Education delivery format. 2 hours. Transfer: CSU; CSU/GE: E.

21 STRATEGIES FOR COLLEGE SUCCESS 1 UNIT
Assessment of learning and college life. Introduction to practical strategies for success in college. Includes student academic programs, college policies, student rights and responsibilities, graduation and transfer requirements, and campus resources and activities. Designed for first-time, returning and re-entry students to ease transition into college and maximize success towards their academic goals. (May not be taken for credit if Psychology Counseling 20 or General Studies 20 has been completed.) 1 hour Transfer: CSU.

22 COLLEGE SUCCESS SERIES 1/2 - 1 1/2 UNITS
(May be repeated 2 times)

A series of workshops focusing on practical strategies for success in college; includes personal, academic and/or career goal setting, transitioning and adapting to higher education, educational planning for graduation and/or transfer, support services and campus resources, majors and careers, and other topics as needs are identified. Designed for all students to maximize their potential with emphasis on enhancing the new students transition into college. 9-27 total hours. Transfer: CSU.

25 COLLEGE ORIENTATION 1/2 UNIT
A survey of practical strategies for academic success focusing on the new student. Examines goal setting, college policies, graduation requirements, campus resources, student rights and responsibilities, and student educational planning. Designed for first-time college students in order to enhance their transition into college and maximize their academic/vocational potential. 9 total hours. Transfer: CSU.

26 COLLEGE SUCCESS AND THE CHICANO EXPERIENCE 1 UNIT
Investigation of the relationship between Chicano cultural experiences and college success. Emphasis on examination of how Chicano cultural experience can affect collegiate success. 1 hour. Transfer: CSU.

28 ORIENTATION FOR INTERNATIONAL STUDENTS 2 UNITS
Introduction to American culture and society and orientation to the American educational system for the foreign-visa student. Introduction to idiomatic use of English and development of basic study skills. Required for all foreign-visa students. 2 hours. Transfer: CSU.

36 WOMEN IN TRANSITION 1 UNIT
A first step back to school for women facing career, personal, or academic decisions following divorce, widowhood, and other life changes. Includes clarifying values and goals, increasing self-esteem, and identification of college resources to effect success. Designed for women returning to the job market. 1 hour Transfer: CSU.

37A WORKPLACE AND INTERPERSONAL SKILLS EDUCATION 1 2 UNITS
Development of critical skills to enable students to internalize and use abilities. Effective life management skills transferable to the workplace. Achievement of goals while maintaining dignity and respect for oneself and others. Enhancement of self-esteem, identification of individual talents, creation of internal motivation and drive to expand talents and assume responsibility. 2 hours. Transfer: CSU.

37B WORKPLACE AND INTERPERSONAL SKILLS EDUCATION II 2 UNITS

This course is part B of the experientially based and sequenced curriculum; students build on knowledge and skills acquired in Psychology Counseling 37A. Students develop additional life management skills that are transferable to the workplace; they learn how to claim their self-esteem, identify individual talents, create internal motivation and drive to expand talents, assume responsibility for themselves, and to interact responsibly with others. This course can prove successful in bringing about additional positive behavior changes, based on the student's goals and desires. Critical techniques are reinforced for getting what they want in ways that maintain dignity and respect for themselves. Internal motivation to expand talents enhances the ability to assume responsibility for self, and interact responsibly with others. Prerequisite: Psychology Counseling 37A (*completed with a grade of "C" or higher*). 2 hours. Transfer: CSU.

39 THE CONFIDENT STUDENT 1 UNIT

Develop and review study skill techniques for becoming a confident student and to work towards college success. Emphasis on motivation on learning, time management, personal learning style, active listening, improving memory, critical thinking, note-taking, test-taking, confidence builders and managing stress. 1 hour Transfer: CSU.

RADIO AND TELEVISION BROADCASTING

**DEGREE:
AA – RADIO AND TELEVISION BROADCASTING**

This two-year diploma program provides students with formal training to become leaders in the communication industry. All aspects of the radio and television industries are covered with the common focus of making graduates job-ready. Equal importance is given to creative production elements and technical quality in operations. The program follows a hands-on approach to learning, stressing the importance of teamwork. Students follow a common curriculum that emphasizes announcing, broadcast journalism and production techniques.

**RADIO AND TELEVISION BROADCASTING
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Mass Communications 31 (Introduction to Broadcasting)		3
Mass Communications 33A (Introduction to Television Studio Techniques)		3
Mass Communications 5 (Introduction to Mass Communications)		3
Mass Communications 32 (Radio and Television Announcing/Performance)		3
Mass Communications 34 (Radio Studio Techniques)		3

SOPHOMORE YEAR	FALL	SPRING
Mass Communications 8 (Advertising Sales and Media Management)		4
Mass Communications 33B (Intermediate Television Studio Techniques)		3
Mass Communications 38 (Special Projects in Radio) or Mass Communication 39 (Special Projects in Television)		2-3
Mass Communications 35 (Writing for Broadcasting)		3
Total		27-28

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

REAL ESTATE (REST)

**DEGREE:
AA–REAL ESTATE**

**CERTIFICATE OF ACHIEVEMENT:
REAL ESTATE**

Real estate courses help prepare students for the Real Estate Licensure Examination and employment as real estate salespersons, brokers, appraisers, escrow officers and real estate planners.

**REAL ESTATE
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR	FALL	SPRING
Business 12 (Introduction to Business)		3
Real Estate 80 (Real Estate Principles)		3
Real Estate 81A (Legal Aspects of Real Estate)		3
Real Estate 84 (Real Estate Practice)		3
Real Estate 85 (Real Estate Economics) or Business 1A (Principles of Accounting I) or Business 7 (General Accounting)		3-4
Business 31 (Professional Selling)		3

SOPHOMORE YEAR	FALL	SPRING
Real Estate 82A (Real Estate Appraisal)		3
Real Estate 83 (Real Estate Finance)		3
Option*		3
Total		27-28

General Education Courses
For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required 60

- * Option select one of the following courses:
Real Estate 81B (Advanced Legal Aspects of Real Estate) 3 units
Real Estate 82B (Advanced Real Estate Appraisal) 3 units
Real Estate 86 (Escrows) 3 units
Real Estate 88 (Real Estate Property Management) 3 units
Real Estate 89 (Real Estate Office Administration) 3 units
Business 10 (Business Law) 4 units

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

REAL ESTATE
CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Real Estate 80 ** (Real Estate Principles)	3	
Real Estate 81A*** (Legal Aspects of Real Estate)	3	
Real Estate 82A*** (Real Estate Appraisal)	3	
Real Estate 85*** (Real Estate Economics) or Business 1A*** (Principles of Accounting 1)	3-4	
Real Estate 83*** (Real Estate Finance)	3	
Real Estate 84*** (Real Estate Practice)	3	
Option*	9	
Total	27-28	

- * Option select from the following courses:
- Business 1B (Principles of Accounting II) 4 units
 - Business 10 (Business Law) 4 units
 - Business 12 (Introduction to Business) 3 units
 - Business 16 (Business Mathematics) 3 units
 - Computer Application Systems 50
 (Introduction to Computer Application Systems) 3 units
 - Business 34 (Introduction to Advertising) 3 units
- ** Required as preparation for the Real Estate Salesperson.
- *** These courses are required as preparation for the State Real Estate Brokers License. Three additional courses must be taken prior to being eligible for the brokers' examination from the following list of courses.
- Real Estate 80 (Principles of Real Estate) 3 units
 - Real Estate 81B (Advanced Legal Aspects of Real Estate) 3 units
 - Real Estate 82B (Advanced Real Estate Appraisal) 3 units
 - Real Estate 86 (Escrow) 3 units
 - Real Estate 88 (Real Estate Property Management) 3 units
 - Real Estate 89 (Real Estate Office Administration) 3 units
 - Business 10 (Business Law) 4 units

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

REAL ESTATE (REST)

- 80 REAL ESTATE PRINCIPLES 3 UNITS**
 Real and personal property acquisition, ownership, estates in real property, joint tenancies, partnerships, sales contracts, homesteads, deeds and taxes. Methods of financing, real estate practices, and regulation of the real estate business. 3 hours. Transfer: CSU.
- 81A LEGAL ASPECTS OF REAL ESTATE 3 UNITS**
 California law as applied to real estate problems; origin and sources of California real estate law; contracts in general; real estate contracts; law of agency and regulation of agents; classification of property; easements; acquisition and transfer of interests of property; methods and incidents of ownership; land description; recordation. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.
- 81B ADVANCED LEGAL ASPECTS OF REAL ESTATE 3 UNITS**
 Continuation of Real Estate 81A in advanced aspects of California real estate law; homestead; land contracts; mortgages, deeds of trust and involuntary lien; governmental regulations; landlord-tenant relationships; title insurance; probate proceedings. Prerequisite: Real Estate 81A. 3 hours. Transfer: CSU.
- 82A REAL ESTATE APPRAISAL 3 UNITS**
 Real estate appraisals, the appraisal process, and different approaches, methods, and techniques used to determine value of various types of property; current trends, neighborhood analysis, and preparing an appraisal report; emphasis on residential and single-unit property. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

82B ADVANCED REAL ESTATE APPRAISAL 3 UNITS
 Appraisal of multiple unit property including commercial and special purpose properties; analysis of income and expenses; techniques of capitalization; emphasis on income producing properties. Prerequisite: Real Estate 82A. 3 hours. Transfer: CSU.

83 REAL ESTATE FINANCE 3 UNITS
 Financing transactions in the real estate business and in lending institutions; analysis of money markets, interest rates and real estate financing. Financing procedures, residential and commercial financing. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

84 REAL ESTATE PRACTICE 3 UNITS
 Principles and practical techniques of operating a real estate business. Emphasis on daily activities of brokers and salesperson; introduction to appraising, exchanges, listings, advertising, financing, and marketing. Exchanges, specialized brokerage, property management, professional and public relations. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

85 REAL ESTATE ECONOMICS 3 UNITS
 Economic factors influencing real estate. Effects of real estate and business cycles on commercial and residential markets. Government fiscal and monetary policies. Urban development and renewal, regulation of land uses. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

86 ESCROWS 3 UNITS
 Escrow procedures for various types of business transactions with emphasis on real estate. Preparation, processing and closing of sales and escrow documents in the transferring, encumbering, and describing of real property. Title search and reports. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

87 REAL ESTATE TAXATION AND EXCHANGES 3 UNITS
 Tax aspects of real estate transactions as they affect buyers and sellers. Aspects of real estate marketing that deal with exchanges. Laws pertaining to real estate taxation that affect exchange opportunities. Prerequisite: Real Estate 80. 3 hours. Transfer: CSU.

88 REAL ESTATE PROPERTY MANAGEMENT 3 UNITS
 Problems encountered by owners and resident managers of residential and commercial income properties; application of sound business principles in the pursuit of operational effectiveness. Prerequisite: Real Estate 80. 3 hours.

89 REAL ESTATE OFFICE ADMINISTRATION 3 UNITS
 Practices essential to the management and operation of a real estate office; recruiting and management of sales personnel, office location, types of ownership, advertising, record keeping, budgeting, areas of specialization. Prerequisite: Real Estate 80. 3 hours.

RECREATION AND LEISURE SERVICES (RECL)

71L FUNDAMENTALS OF BACKPACKING 2 UNITS
 Introduction to concepts and techniques associated with backpacking. Skills emphasized in this course are designed to increase recreation leadership potential in outdoor recreation and education careers. 1½ hours lecture, 2 hours laboratory.

RECREATION AND REHABILITATION THERAPIES (RECR)

67A ACTIVITY DIRECTORS' TRAINING **3 UNITS**
 Fundamentals of activity programming for patients in Skilled Nursing Facilities and Intermediate Care Facilities. Includes an overview of the specific job responsibilities of an activity director as described in Section 72389, Skilled Nursing Facility Regulations and Intermediate Care Facility Regulations of the State of California, Title 22. 3 hours. Transfer: CSU.

67B ACTIVITY PROGRAMMING FOR LONG TERM CARE FACILITIES **4 UNITS**
 Therapeutic activity program design for individuals in long term care facilities. Methods used to develop and implement therapeutic, social and restorative activities. Activity analysis, leadership and motivational methods appropriate for residents of long term care facilities. Prerequisite: Recreation and Rehabilitation Therapies 67A (*completed with a grade of "C" or higher*). 4 hours. Transfer: CSU.

RELIGIOUS STUDIES (RELS)

1 RELIGIONS OF THE WORLD **3 UNITS**
 Introduction to religion by examining several religions; basic principles of each shown by fundamental scriptures and works in the visual and musical arts. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

7 BIBLE SYMBOLS **3 UNITS**
 An exploration of selected books from the Old and New Testaments and related works of art both ancient and modern that make much use of biblical symbols. Focus on seeing symbols in terms of their origin, function, and surrounding context. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

11 THE NATURE OF ISLAM **3 UNITS**
 Introduction to the nature of Islam as a religion or system for life, its culture and its impact on Muslim individuals and groups. Includes a brief history of Islam and Muslims in relation to the basic sources of Islam. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

12 CONTEMPORARY ISSUES IN ISLAM **3 UNITS**
 Insight into the complexities of Islam throughout the world, especially in America. In depth study of topics such as gender roles, contribution of Muslims to the human civilization and the adaptation of Muslim culture into American society provide extensive opportunity for discussion and research. 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Area 3; AA/AS.

30 RELIGIONS OF ASIA **3 UNITS**
 Religious traditions of Asia. Focus on a small subset of Asia's great religions. Comparison/contrast of at least three dominant traditions' religious/philosophical thought and everyday practice. Basic theory in academic study of religion. 3 hours. Transfer: CSU; CSU/GE: C2; AA/AS

SECURITY

(See Administration of Justice)

SIGN LANGUAGE (SL)

64 ASL BEGINNING SIGN LANGUAGE **3 UNITS**
(May be repeated 3 times)
 Introduction to beginning communication skills through the language of sign, with emphasis on American Sign Language (ASL). Introduction to an understanding of deafness and the deaf culture. Basic sign vocabulary, the manual alphabet, and a contrast with various other sign systems used throughout the United States. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.

65 ASL INTERMEDIATE SIGN LANGUAGE **3 UNITS**
(May be repeated 3 times)
 Further development of skills and knowledge learned in Beginning Sign Language 64, with emphasis on American Sign Language (ASL). Communication of vocabulary building, with emphasis on applying ASL characteristics for communication in phrases and culturally specific language. Prerequisite: Sign Language 64 (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC; CSU/GE: C2; IGETC: Language; AA/AS.

SOCIAL SCIENCE (SOCS)

DEGREE:
AA – SOCIAL SCIENCE (GENERAL)
AA – SOCIAL SCIENCE
(EMPHASIS IN CULTURAL STUDIES)
(PENDING STATE APPROVAL)

An introduction to cultural analysis within and between cultural groups, both in the United States and throughout the world. Emphasis is on comparative theory and methodology. Recognizes the significance of globalization worldwide, its impact of cultures and treats culture as a dynamic entity. Prepares students for upper division majors in an array or subjects where cultural analysis is relevant including anthropology, geography, psychology, sociology, education, counseling, social welfare, global studies, peace studies, multicultural and gender studies.

SOCIAL SCIENCE
(EMPHASIS IN CULTURAL STUDIES)

ASSOCIATE IN ARTS DEGREE
 (PENDING STATE APPROVAL)

FRESHMAN YEAR	FALL	SPRING
Anthropology 3 (Social and Cultural Anthropology)		3
Geography 2 (Cultural Geography).		3
Sociology 3 (American Cultural and Racial Minorities)		3

SOPHOMORE YEAR

Select from the following for additional 9 units

- Anthropology 5 (Cultural Pluralism: Anthropological Perspectives of Race, Class, Gender and Ethnicity)
- Anthropology 8 (Native American Cultures)
- Geography 5 (World Regional Geography)
- History 20 (African American History Through the 19th century)
- History 21 (African American History-20th Century)
- History 22 (Introduction to Mexican-American History and Culture)
- History 25 (American Indian History and Culture)
- Psychology 18 (Psychology of The African American Experience)
- Sociology 10 (Introduction to Asian American Studies)
- Sociology 30 (Social Gerontology)

Total **18**

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

**SOCIAL SCIENCE (GENERAL)
TRANSFER PROGRAM AND
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR

FALL SPRING

- Anthropology 3 (Social and Cultural Anthropology) or
Geography 2 (Cultural Geography) 3
- Economics 1 (Principles of Microeconomics) or
Economics 10 (General Economics) 3
- Psychology 1 (General Psychology) or
Sociology 1 (Principles of Sociology) 3

SOPHOMORE YEAR

FALL SPRING

- History 2 (History of Western Civilization Since 1600) or History 12 (History of California) 3
 - Political Science 20 (Comparative Government) or
Political Science 30 (International Relations) 3
 - Sociology 2 (Social Problems) or
History 27 (American Women History) or
Sociology 30 (Social Gerontology) 3
- Total** **18**

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

SOCIOLOGY (SOC)

DEGREE:

**AA – SOCIOLOGY
(EMPHASIS IN GERONTOLOGY)**

CERTIFICATE OF COMPLETION:

**SOCIOLOGY
(EMPHASIS IN GERONTOLOGY)**

Chabot College offers an Associate in Arts Degree in Sociology, with an emphasis in Gerontology, especially for those who enjoy working and interacting with elders. The program prepares students to work with the growing numbers of older adults in the population. Multidisciplinary gerontology courses and field experiences acquaint the students with the social, physical and psychological process of aging. Persons who obtain a gerontology certificate will increase their marketability, skills, and knowledge to provide services to older adults, and they will better position themselves to enter the field with current basic knowledge and up-to-date job skills.

**SOCIOLOGY
(EMPHASIS IN GERONTOLOGY)
ASSOCIATE IN ARTS DEGREE**

FRESHMAN YEAR

FALL SPRING

- Sociology 3 (American Cultural and Racial Minorities) 3
- Sociology 30 (Social Gerontology) 3
- Sociology 63 (Social Worker Designee Training) 2
- Psychology 1 (General Psychology) 3

SOPHOMORE YEAR

FALL SPRING

- Sociology 31 (Dependence on Old Age) 3
 - Sociology 32 (Social Policy, Programs and Services for Elders) 2
 - Sociology 33 (Sociobiology of Aging) 2
 - Electives* 3-4
- Total** **21-22**

General Education Courses

For specific General Education courses refer to catalog section on Graduation Requirements.

Total minimum units required **60**

**One course to be selected from the following (3-4 units)*

Recreation and Rehabilitation Therapies 67A (Activity Directors' Training) (3 units)

Recreation and Rehabilitation Therapies 67B (Activity Programming for Long Term Care Facilities) (4 units)

**SOCIOLOGY
(EMPHASIS IN GERONTOLOGY)
CERTIFICATE OF COMPLETION**

CORE COURSES	FALL	SPRING
Sociology 32 (Social Policy, Programs and Services for Elders)	2	
Recreation and Rehabilitation Therapies 67A (Activity Directors' Training)		3
Sociology 31 (Dependency in Old Age)		3
Sociology 63 (Social Worker Designee Training)		2
Recreation and Rehabilitation Therapies 67B (Activity Programming for Long Term Care Facilities)		4
Total		14

SOCIOLOGY (SOC)

- 1 PRINCIPLES OF SOCIOLOGY 3 UNITS**
The sociological perspective: scientific study of human interaction and society as a whole with emphasis on impact of groups on social behavior; systematic examination of culture and social organization, and methodology. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: DO; D; IGETC: Area 4; AA/AS; (CAN SOC 2).
- 2 SOCIAL PROBLEMS 3 UNITS**
Introduction to social problems common to modern industrial society, and the role of principal institutions in social organization and social disorganization. Includes crime, juvenile delinquency, divorce, drug addiction, alcoholism, aging, mental health and population as well as other areas. Focus on modern American society. Strongly recommended: Psychology I or 50, or Anthropology 3. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: DO; IGETC: Area 4; AA/AS; (CAN SOC 4).
- 3 AMERICAN CULTURAL AND RACIAL MINORITIES 3 UNITS**
Analysis of racial and ethnic relations in the United States. Includes race, ethnicity, prejudice, discrimination and stereotyping, as well as theories and patterns of intergroup relations. Focus on contemporary American minorities; African Americans, Chicano/Latinos, Asian Americans, and Native Americans. Strongly recommended: Sociology 1 or Anthropology 3 or Psychology 1 or 50. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: D3, DO; IGETC: Area 4; AA/AS.
- 4 MARRIAGE AND FAMILY RELATIONS 3 UNITS**
Sociological perspective of the family including mate selection, marital roles, marital adjustment, sexual adjustment, reproduction, child rearing, marital dissolution, and problems associated with the family in modern industrial society. Emphasis on methodology of family investigation. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU, UC; CSU/GE: DO; IGETC: Area 4; AA/AS.
- 8 HUMAN SEXUALITY 3 UNITS**
(See also Health 8 or Psychology 8.)
Physiological and psychosocial aspects of sexual health in our contemporary society. Understanding the interrelationship of attitude and behavior as it relates to sexual well-being and sexual integrity. May not receive credit if Health 8 or Psychology 8 has been completed. 3 hours. Transfer: CSU, UC; CSU/GE: E; AA/AS.

10 INTRODUCTION TO ASIAN AMERICAN STUDIES 3 UNITS
An examination of the experiences and perspectives of Asian Americans from Mid-1800 s to the present. Major topics will include family, political involvement, assimilation, education and employment. Provides a comparative context for understanding the panethnic movement. May be offered in Distance Education delivery format. 3 hours. Transfer: CSU; CSU/GE: D3; IGETC Area 4; AA/AS.

11 FEMININITY AND MASCULINITY 3 UNITS
Biological, psychological, sociological, and anthropological overview of the assignment of behaviors to males and females. Identification of physiological and cultural influences on gender identity with emphasis on the historical sex role definition and socialization process in American culture, constraints of those definitions, and issues related to possible future changes. 3 hours. Transfer: CSU, UC; CSU/GE: D4, D0; IGETC: Area 4; AA/AS.

30 SOCIAL GERONTOLOGY 3 UNITS
Introduction to the study of aging, the social world, and social networks of European-American, African-American, Hispanic-American and Asian-American elders. Focus on heterogeneity within specific groups of minority elders, as well as differences in the aging experience for members of these designated subcultures. Emphasis on sociological theory as it applies to the independent elder. 3 hours. Transfer: CSU, UC; CSU/GE: D0, E; IGETC: Area 4; AA/AS.

31 DEPENDENCY IN OLD AGE 3 UNITS
Study of the aged and the disabled from a multidisciplinary perspective, but focusing upon the social factors and stress that impact upon the dependent person in U.S. society. It includes an examination of the loss of physical and intellectual function, disease, institutionalization and the looking glass self. The goal is to make these frequently invisible populations not only visible but also better understood. 3 hours. Transfer: CSU; CSU/GE: D0, E; AA/AS.

32 SOCIAL POLICY, PROGRAMS AND SERVICES FOR ELDERLY 3 UNITS
Examination of the programmatic and policy issues in social gerontology including an overview of public and private agencies which provide services to the elderly. View of legislation and service delivery with analysis of historical trends in societal attitudes towards providing services to older adults. Also includes policy, service and program needs of the minority elderly, specifically African American, Asian American, Hispanic American and Native American elders. Requires that student work as a volunteer for a minimum of 12 hours during the semester in an older adult social program, e.g. senior center, etc. 3 hours. Transfer: CSU; CSU/GE: D0; AA/AS.

33 SOCIOBIOLOGY OF AGING 3 UNITS
Analysis of the basic nature of healthy biological aging as distinguished from untimely infirmities of old age for European-Americans, African Americans, Hispanic-Americans, Asian-Americans and Pacific Islanders. Examination of regressive factors, cultural, environmental and attitudinal, which may contribute to physical decline, and ill health in advancing years. Includes contrasts and comparisons of health and illness between and within different racial groups; overview of the effect of the physical aging process on body systems; and health care programs, ethics, long term care and issues of autonomy. 3 hours. Transfer: CSU; CSU/GE: D7, E.

63 SOCIAL WORKER DESIGNEE TRAINING 2 UNITS
Responsibilities of the person designated as social worker in skilled and intermediate care facilities serving a predominantly elder population. Focus on identifying and meeting the medically-related social and emotional needs of the frail elderly, chronically ill, cognitively impaired and sub-acute resident that places them within the context of past history, current status, and future goals. Designed to provide theory and skills needed to satisfy State regulations as outlined in Title 22. 2 hours. Transfer: CSU.

SPANISH

(See Foreign Languages)

SPECIAL STUDIES

SPECIAL STUDIES **1/2-5 UNITS**
 Special studies in a specialized technical-vocational major. Typically offered for a particular occupation or skill. Courses may be offered under any course title contained in the Catalog, using the number 99. 1-6 hours.

SPEECH (SPCH)

DEGREE:
AA – SPEECH COMMUNICATION

The National Association of Colleges and Employers rated “oral communication” highest among attributes necessary in achieving professional success. More and more businesses and occupations prefer to hire employees who possess strong communication skills. There are opportunities for working in corporate training, consulting, marketing, sales, public relations, human resources, television, radio, telecommunications, and political campaigning. A strong background in communication is also looked upon favorably by four-year universities when evaluating applicants. In addition, effective communication skills can assist in individual development and enhancement of human relations.

SPEECH COMMUNICATION
 TRANSFER PROGRAM AND
 ASSOCIATE IN ARTS DEGREE

FRESHMAN YEAR		FALL	SPRING
Speech 1 (Fundamentals of Speech Communication)			3
Speech 10 (Interpersonal Communication)			3
Speech 2A (Oral Interpretation of Literature 1)			3
Speech 46 (Argumentation & Debate)			3
SOPHOMORE YEAR		FALL	SPRING
Option*		3	3
Total			18

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

- *Option-choose three units from the following
Mass Communications 32 (Radio and Television Announcing/Performance)
Mass Communications 40 (Radio Theater) or
Speech 40 (Radio Theater)
Speech 2B (Oral Interpretation of Literature II)
Speech 3 (Group Communication)
Speech 5 (Readers' Theater)
Theater Arts 25 (Fundamentals of Stage Speech)
Speech 48 (Achilles in Forensics)
Speech 11 (Intercultural Communication)
Speech 30 (Elements of Speech)

SPEECH (SPCH)

1 FUNDAMENTALS OF SPEECH COMMUNICATION 3 UNITS
 Fundamentals of speech communication; emphasis on developing, stating, organizing, and researching ideas, and presenting to an audience; includes developing the faculties of critical listening and problem-solving. Strongly recommended: Eligibility for English 1A. 3 hours. Transfer: CSU, UC; CSU/GE: A1; IGETC Area 1, Group C: AA/AS; (CAN SPCH 4).

2A ORAL INTERPRETATION OF LITERATURE I 3 UNITS
 Development of skill in reading quality literature aloud; practice in writing scholarly criticism of the literature presented orally. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.

2B ORAL INTERPRETATION OF LITERATURE II 3 UNITS
 Further development of skills and knowledge of individual oral interpretation from more difficult and specialized literary sources. Explores other forms of performance such as duet reading and chamber theatre. Development of dialect and further vocal characterization. Prerequisite: Speech 2A. 3 hours. Transfer: CSU, UC; M/AS.

3 GROUP COMMUNICATION 3 UNITS
 Communication in small group situations. Role of communication in various group processes, including norms, roles, leadership and decision-making, with application to modern concepts of organizational communication. Includes participation in simulation exercises and group activities. 3 hours. Transfer: CSU, UC; (CAN SPCH 8).

5 READERS' THEATER 3 UNITS
 Introduction to various media and techniques used in readers' theater and the arrangement and programming of literature. Performance and/or arrangement of programs for specific audiences; children, young adults, and adults by using live theater presentation, television, and/or radio. 3 hours. Transfer: CSU, UC; CSU/GE: C2; AA/AS.

10 INTERPERSONAL COMMUNICATION 3 UNITS
 Exploration, discussion, and evaluation of the components of verbal and nonverbal communication processes. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; CSU/GE: E; AA/AS; (CAN SPCH 8).

11 INTERCULTURAL COMMUNICATION 3 UNITS
 Intercultural Communication with a focus on the analysis and comparisons of message perception and transmission in interactions between people from different cultures. Emphasis on practical application of skills for effective communication between people of different domestic and international cultures. 3 hours. Transfer: CSU, UC; CSU/GE: D7; AA/AS.

30 ELEMENTS OF SPEECH 3 UNITS
 Emphasis on individual abilities and needs in achieving effective verbal communication in daily life, business situations, and community activities. 3 hours. Transfer: CSU; CSU/GE: 1A; AA/AS.

40 RADIO THEATER **3 UNITS**
(See also Mass Communications 40)
 Performance and production techniques of Radio Theater. Emphasis on vocal characterization, microphone techniques and script adaptation. Includes results in a total theater production to be broadcast locally. May not receive credit if Mass Communications 40 has been completed.) 3 hours. Transfer: CSU; AA/AS.

46 ARGUMENTATION AND DEBATE **3 UNITS**
 Analysis of contemporary questions through written and spoken discourse. Analysis, criticism, and synthesis of contemporary moral, political, economic and philosophical issues of a diverse, multicultural society, using traditional and modern models of argumentation. Strongly recommended: English 1A. 3 hours. . Transfer: CSU, UC; CSU/GE: A1, A3; IGETC Area 1, Group C: AA/AS; (CAN SPCH G).

48 ACTIVITIES IN FORENSICS **1-4 UNITS**
(May be repeated 3 times)
 Intercollegiate competition in the areas of public speaking and oral interpretation. Other activities include performance in workshops, festivals, concert readings, and the community. 4-16 laboratory hours. Transfer: CSU.

TECHNICAL ILLUSTRATION

DEGREE:
AS – TECHNICAL ILLUSTRATION

TECHNICAL ILLUSTRATION ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Art 2A (Introduction to Drawing)	4	
Art 2B (Drawing and Composition)		4
Art 45 (Creative Portfolio and Self Promotion) or Art 55 (Introduction to Graphic Design Careers)	2-3	
Art 48 (Perspective Drawing) or Art 61 (Illustration)	3	
Design Technology 52 (Machine Drafting)		3
Photography 50 (Introduction to Photography)		3
SOPHOMORE YEAR	FALL	SPRING
Art 10 (Design and Materials)	3	
Art 11 (Design, Materials and Color)		3
Art 40 (Graphic Design Principles) or Art 60 (Advertising Production)	3	
Art 43 (Typography and Publication Design)	3	
Design Technology 61 (Electronic Drafting)		3
Design Technology 62A (Computer Aided Drafting CAD)		3
Design Technology 62B (Computer Aided Drafting CAD)		3
Technical Option*		3
Total	43-44	

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

*Any 3 unit course in Design Technology, Engineering or Engineering Technology.

THEATER ARTS (THEA)

1A THEORY AND PRACTICE OF ACTING I **3 UNITS**
 Physical and psychological resources for acting, including exercises in relaxation, observation, and concentration, with emphasis on scene study of modern or contemporary drama. 3 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS; (CAN DRAM 8).

1B THEORY AND PRACTICE OF ACTING II **3 UNITS**
 Continued exploration of the theory and practice of acting, focusing on more complex characterization and character analysis. Introduction to theatrical styles and period acting with emphasis on monologues and scenes. Prerequisite: Theater Arts 1A (*completed with a grade of "C" or higher*). 3 hours. Transfer: CSU, UC; (CAN DRAM 22).

**3 THEATER IMPROVISATION:
 A WORKSHOP IN SPONTANEITY** **1-3 UNITS**
(May be repeated 3 times)
 Introduction to Improvisation. Workshop exercises in theater experience through the operational structure of the game. Mimes, characterizations, scene setting, mood and material for extended ensemble improvisation. Recommended for non-drama as well as drama majors. Credit for more than 1 unit requires completion of special projects. 3 hours. Transfer: CSU, UC; AA/AS.

5 CHILDREN'S THEATER **1-3 UNITS**
(May be repeated 3 times)
 Introduction to the techniques of formal children's theater. Creation and performance of a theatrical production designed for children. Casting subject to audition. 1-3 hours. Transfer: CSU; CSU/GE: C1.

10 INTRODUCTION TO THEATER ARTS **3 UNITS**
 The dramatic arts, including the history, values, and theatrical techniques that have shaped them. 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS.

11 STAGE TO FILM **3 UNITS**
 Major plays which subsequently have been made into films. Analysis of each playscript augmented by a viewing and analysis of the film adaptation. Major areas of concentration will vary from semester to semester 3 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3.

12 FILM AS ART AND COMMUNICATION **4 UNITS**
 Introduction to film as art and communication. Analysis of film expression including narrative, documentary, and experimental. 4 hours. Transfer: CSU, UC; CSU/GE: C1; IGETC: Area 3; AA/AS.

14 BAY AREA THEATER **1-3 UNITS**
(May be repeated 1 time)
 Appreciation of currently available theater performance by reading, evaluating, and having the option of attending as many as eight plays concurrently in performance in the area. Credit for more than 1 unit requires completion of special projects. 1-3 hours. Transfer: CSU, UC; AA/AS.

**16 INTRODUCTION TO PLAYWRITING
 FOR FILM, TELEVISION AND THEATER** **3 UNITS**
(May be repeated 1 time)
 Introduction to basic principles and procedures of playwriting. Writing for film, television, and theater with an analysis of the requirements for each medium. Development of original scripts towards the completion of a one-act play. See Film 16. Strongly recommended: Eligibility for English 1A or 52A. 3 hours. Transfer: CSU; CSU/GE: C2.

25 FUNDAMENTALS OF STAGE SPEECH **3 UNITS**
 Theory and practice of speech improvement for acting with emphasis on development of the voice, articulation, and pronunciation for theater production. Covers speeches and oral traditions from 1600 to the present. 3 hours. Transfer: CSU, UC; CSU/GE: C1; AA/AS; (CAN DRAM 6).

- 30 DRAMA WORKSHOP** **1-3 UNITS**
(May be repeated 3 times)
 Participation in experimental workshop plays, original student scripts, and other projects, possibly leading to scheduled performances. Casting subject to audition. Prerequisite: Theater Arts 1A *(completed with a grade of "C" or higher)*. 3-9 hours laboratory. Transfer: CSU, UC.
- 39 MUSICAL THEATER WORKSHOP** **3 UNITS**
 Training in performance skills for the musical theater, with emphasis on acting and stage movement. Corequisite: Music 39. 3 hours. Transfer: UC.
- 40 INTRODUCTION TO TECHNICAL THEATER** **2 UNITS**
 Introduction to technical production of theater; scene construction and painting, and organization for production, laboratory experience in preparing plays for public performance. 1 hour lecture, 3 hours laboratory. Transfer: CSU, UC; CSU/GE: C1.
- 42 COSTUME DESIGN AND MAKEUP** **2 UNITS**
 Introduction to costume design with emphasis on construction, fabrics, basic patterns, wardrobe planning, and historical styles, history, theory, and techniques of theatrical makeup, including stylized forms. Strongly recommended: Theater Arts 40. 1 hour lecture, 2 hours laboratory. Transfer: CSU, UC.
- 43 STAGE SCENERY AND PROPERTIES** **2 UNITS**
 Introduction to the design of theatrical sets, including properties, techniques of construction, organization, and implementation of design for production. Prerequisite: Theater Arts 40 *(completed with a grade of "C" or higher)*. 1 hour lecture, 2 hours laboratory. Transfer: CSU, UC.
- 44 STAGE LIGHTING** **2 UNITS**
 Introduction to stage lighting design. Physics of light, color, electricity; components of basic lighting technology; comprehensive overview of the art of stage lighting design. Strongly recommended: Theater Arts 40. 1 hour lecture, 2 hours laboratory. Transfer: CSU, UC.
- 45 THEATER AUDIO** **2 UNITS**
 Introduction to theater audio requirements in relation to sound on stage with emphasis on live sound reinforcement, basics of sound transmission, human reception, and components of theater sound systems. Prerequisite: Theater Arts 40 *(completed with a grade of "C" or higher)*. 1 hour lecture, 2 hours laboratory. Transfer: UC.
- 47 COLLEGE THEATER ACTING** **1-6 UNITS**
(May be repeated. Limit 24 units.)
 Participation in cast of scheduled major production. Enrollment is for the duration of the production. Enrollment by audition only. 3-18 hours laboratory. Transfer: CSU, UC; AA/AS.
- 48 COLLEGE THEATER TECHNICAL** **1-6 UNITS**
(May be repeated. Limit 24 units.)
 Participation in scheduled productions as crew members and/or constructing its technical elements. Enrollment is for the duration of the production. 3-18 hours laboratory. Transfer: CSU, UC; M/AS.
- 50 PRODUCTION MANAGEMENT** **1-6 UNITS**
(May be repeated. 3 times)
 Basic building blocks of producing a show, from the choice of material to the staging of a play from a broad range of historical periods. Organizing department productions, including student fund-raisers, student original projects, theater week, and the main stage productions. Personnel management, conducting regular production meetings, reconciling budget considerations, aesthetic demands, and practical matters. The business operations of all the scheduled productions, including promotions and front-of-house duties. 1 hour lecture, 3-15 hours laboratory.

TUTORING (TUTR)

- 15 TRAINING FOR TUTORS** **2 UNITS**
 Training for college tutors to acquire specific skills and techniques for tutoring in academic and vocational subject matter areas and basic skills. Required course for tutors participating in the College's Tutorials Instructional Program. 2 hours. Transfer: CSU.
- 29 INDEPENDENT STUDY-TUTORING** **1/2 -2 UNITS**
(May be repeated 3 times)
 A practical experience to help other students learn and succeed in school-related activities. Provides opportunities to gain experience in the field of education in preparation for making career choices. For 1 unit, 1 hour lecture, 2 hours tutoring; for 2 units, 1 hour lecture, 4 hours tutoring. Transfer: CSU.
- 51 STUDY SKILLS & TUTORIALS INTERVENTIONS** **1/2 -1 UNIT**
 Individualized and group activities designed to support success in the classroom setting. Includes learning style assessment and follow-up, study skills workshops, group tutorials activities and assignments for individualized tutoring support. 18-36 hours total. Transfer: CSU.

WELDING TECHNOLOGY (WELD)

DEGREE:
AS – WELDING TECHNOLOGY

CERTIFICATE OF ACHIEVEMENT:
WELDING

The program prepares students for employment in the welding trade and intensive preparation for welder certification.

Student will be able to gas and arc weld in all positions as well as use gas and arc cutting equipment. Upon completion of the A.S. Degree in welding, the student will be employable in the trades or will be able to transfer to a state university for study in an industrial-related degree program.

WELDING TECHNOLOGY ASSOCIATE IN SCIENCE DEGREE

FRESHMAN YEAR	FALL	SPRING
Design Technology 55 (Blueprint Reading and Sketching)	2	
Industrial Technology 74 (Measurements and Calculation)	3	
Welding Technology 64A (Beginning Arc, Flux-Core Welding and Blueprint Reading)	3	
Welding Technology 65A (Beginning TIG, MIG and Blueprint Reading)	3	
Welding Technology 67A (Welding Skills Laboratory)	2	
Welding Technology 64B (Advanced Arc, Flux-Core Welding and Blueprint Reading)	3	
Welding Technology 65B (Advanced TIG, MIG and Blueprint Reading)	3	

Welding Technology 63 (Welding Layout and Fitting)	2
Welding Technology 67B (Advanced Welding Skills Laboratory)	2
Industrial Technology 61 (Manufacturing Process)	2

SOPHOMORE YEAR	FALL	SPRING
Welding Technology 69A** (Fabrication and Installing Piping Systems)		3
Welding Technology 66** (Welding Inspection and Testing)		2
Welding Technology 69B** (Advanced Pipe Welding)		3
Total		33

General Education Courses
 For specific General Education courses refer to catalog section on Graduation Requirements.
Total minimum units required **60**

*Satisfies mathematics requirement for graduation.
 **Offered alternating years.

The above listing is a suggested sequence only Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

WELDING
 CERTIFICATE OF ACHIEVEMENT

CORE COURSES	FALL	SPRING
Design Technology 55 (Blueprint Reading and Sketching)		2
Industrial Technology 74 (Measurements and Calculation)		3
Welding Technology 64A (Beginning Arc, Flux-Core Welding and Blueprint Reading)		3
Welding Technology 65A (Beginning TIG, MIG and Blueprint Reading)		3
Welding Technology 67A (Welding Skills Laboratory)		2
Welding Technology 64B (Advanced Arc, Flux-Core Welding and Blueprint Reading)		3
Welding Technology 65B (Advanced TIG, MIG and Blueprint Reading)		3
Welding Technology 63 (Welding Layout and Fitting)		2
Welding Technology 67B (Advanced Welding Skills Laboratory)		2
Total		23

*Satisfies mathematics requirement for graduation.

The above listing is a suggested sequence only. Some courses may have prerequisites. Students may take courses in any sequence except where a prerequisite applies.

WELDING TECHNOLOGY (WELD)

63 WELDING LAYOUT AND FITTING 2 UNITS
(May be repeated 3 times)

Interpretation of welding blueprints by making welding layouts and fitups. Current methods, practices, and recommended procedures. Use of jigs, fixtures, holding devices, and welding sequences. Methods of straightening and restoring dimensions to finished product. Laboratory includes Arc, MIG, TIG, and Fluxcore welding, plasma and fuel cutting. Prerequisite: Welding Technology 65B (may be taken concurrently) and Industrial Technology 74. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

64A BEGINNING ARC, FLUX-CORE WELDING, AND BLUEPRINT READING 3 UNITS
(May be repeated 3 times)

Theory and practical application of Arc, Shielded Metal Arc Welding (SMAW) and Flux-Core Arc Welding (FCAW) including plasma, carbon arc and flame cutting; American Welding Society (AWS) nomenclature and codes; electrode and wire selection; blueprint reading as applicable to the welding industry; hazardous materials regulations; job opportunities. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

64B ADVANCED ARC, FLUX-CORE WELDING AND BLUEPRINT READING 3 UNITS
(May be repeated 3 times)

Advanced theory and safety of Arc (SMAW) and Flux-Core (FCAW) welding in the vertical and overhead positions, cutting, certification and code interpretation. Advanced blueprint work, metallurgy, and hazardous material regulations. Prerequisite: Welding 64A. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

65A BEGINNING TIG, MIG, AND BLUEPRINT READING 3 UNITS
(May be repeated 3 times)

Theory and practical application of fuel and inert gas welding of non-ferrous and ferrous alloys, oxyacetylene brazing, flame and plasma cutting. TIG (Tungsten Inert Gas), GTAW (Gas Tungsten Arc Welding) and MIG (Metal Inert Gas), GMAW (Gas Metal Arc Welding) skill development according to the American Welding Society (AWS) codes, equipment and supplies. Introduction to blueprint reading, layout and fitting. Proper and safe use of welding equipment. Hazardous material regulations. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

65B ADVANCED TIG, MIG AND BLUEPRINT READING 3 UNITS
(May be repeated 3 times)

Advanced skill development in TIG (GTAW) and MIG (GMAW) welding of steel and non-ferrous alloys in the vertical and overhead positions according to American Welding Society (AWS) codes. Advanced blueprint reading, layout, and fitting of steel and non-ferrous alloys. Hazardous material regulations. Prerequisite: Welding Technology 65A. 1 hour lecture, 6 hours laboratory. Transfer: CSU.

66 WELDING INSPECTION AND TESTING 2 UNITS
(May be repeated 3 times)

Theory and skills in performing inspections and tests using destructive and nondestructive methods. Tensile and hardness testing; dye penetrant, magnetic particle, radiographic, ultrasonic, and metallographic inspection. Prerequisite: Welding Technology 65B, Industrial Technology 74. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

67A WELDING SKILLS LABORATORY 2 UNITS
(May be repeated 3 times)

Development and improvement of skills in Arc (SMAW), Flux-core (FCAW), MIG (GMAW), and TIG (GTAW) welding. Prerequisite: Welding Technology 64A or experience in the metals industry. 6 hours laboratory.

67B ADVANCED WELDING SKILLS LABORATORY 2 UNITS*(May be repeated 3 times)*

Advanced development and improvement of skills in Arc (SMAW), Fluxcore (FCAW), MIG (GMAW), and TIG (GTAW) welding. 6 hours laboratory.

68 CERTIFICATION PREPARATION ½-2 UNITS*(May be repeated 3 times)*

Welding processes preparation for certification exams. Theory of American Welding Society D1.1, American Society of Mechanical Engineers Section IX, American Petroleum Institute 1104. Includes laboratory practice in skills needed to take these exams. Prerequisite: Welding experience. 1½ to 6 hours laboratory.

69A FABRICATION AND INSTALLING PIPING SYSTEMS 3 UNITS*(May be repeated 3 times)*

Theory and skills of pipe joint fabrication and code welding of pipe. Analysis of joint configuration, plasma and flame cutting and welding of pipe. Prerequisite: Welding Technology 65B or certification. 1 hour lecture, 6 hours laboratory.

69B ADVANCED PIPE WELDING 3 UNITS*(May be repeated 3 times)*

Theory and skills of code pipe welding utilizing SMAW, GMAW, and GTAW welding processes. Prerequisite: Welding Technology 69A or certification. 1 hour lecture, 6 hours laboratory.

70 INTRODUCTION TO WELDING 2 UNITS*(May be repeated 3 times)*

Arc, TIG, MIG, Flux-core, gas and braze welding, plasma and fuel gas welding and cutting. Theory and care of welders equipment with emphasis on safe practices. 1 hour lecture, 3 hours laboratory. Transfer: CSU.

71 ART WELDING 1 UNIT*(May be repeated 3 times)*

Introduction to Arc, MIG, TIG, oxyacetylene welding, brazing, soldering, plasma and flame cutting as applied to metalworking. Emphasis on safety and skill development. 3 hours laboratory. Transfer: CSU; CSU/GE: C1.

Or equivalent.*WORK EXPERIENCE (WEXP)****95 OCCUPATIONAL WORK EXPERIENCE****EDUCATION****1-3 UNITS***(May be repeated 3 times)*

College supervised on-the-job training. Paid or volunteer work experience, including an internship, in an occupation related to student's major or classes at Chabot. Cooperative effort between student, supervisor, and instructor to accomplish new work objective and broaden experiences for each semester enrolled. Corequisite: Work experience 96. 5-15 hours or more of paid employment per week or 4-12 hours of volunteer work per week. Transfer: CSU.

96 OCCUPATIONAL WORK EXPERIENCE SEMINAR 1 UNIT*(May be repeated 3 times)*

Provide the focal point for the coordination of the student's curriculum with college supervised employment/volunteering in the student's major field. Emphasis on building strong working relationships with supervisors, subordinates, and co-workers. Issues pertaining to the modern workplace. Corequisite: Work Experience 95. 1 hour Transfer: CSU.

98 OCCUPATIONAL WORK EXPERIENCE ALTERNATE PLAN 4-8 UNITS*(May be repeated 3 times)*

College supervised on-the-job training enabling students to attend college full-time one semester and work full-time the following semester. The on-the-job experience must be related to the students' educational and occupational goals or college major. The training may be paid or volunteer, like an internship. 20-40 hours of work experience each week is required. May be repeated to a total of 16 units.

*◇ Refer to page 14 for program requirements.***ZOOLOGY**

(See Biological Sciences)

DISTRICT AND COLLEGE FOUNDATIONS

DISTRICT FOUNDATION

The Foundation is a non-profit corporation chartered under the laws of the State of California. The specific and primary purposes for which the corporation is formed are to operate for the advancement of community college education and for charitable purposes by the distribution of its funds for such purposes.

OFFICERS

President Perry Carter
Vice President Dorothy Hudgins
Secretary/Treasurer. Clyde Allen

BOARD OF DIRECTORS

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STAFF ASSISTANT

Erna L. de Nu

CHABOT COLLEGE FOUNDATION

Chabot College and Las Positas College are authorized to establish subfoundations with their own By-Laws, Officers and Board of Directors. The board members of our developing Chabot College Foundation are:

Rich Talmo, Executive Director
Robert Carlson
Marshall Mitzman

Gifts to the Foundation work for you and our community and they fill serious voids. Contributions to the Foundation are tax deductible.



CONTINUING EDUCATION

Continuing education classes are designed to provide in-service education for persons who must maintain a professional license by periodic training and upgrading of their skills. Typically, such classes are required in the nursing, dental hygiene, real estate, and accounting professions.

Organizations or individuals who desire information regarding continuing education opportunities, or wish to suggest a needed continuing education class, should telephone (510) 723-6644.

TRAINING AND DEVELOPMENT SOLUTIONS

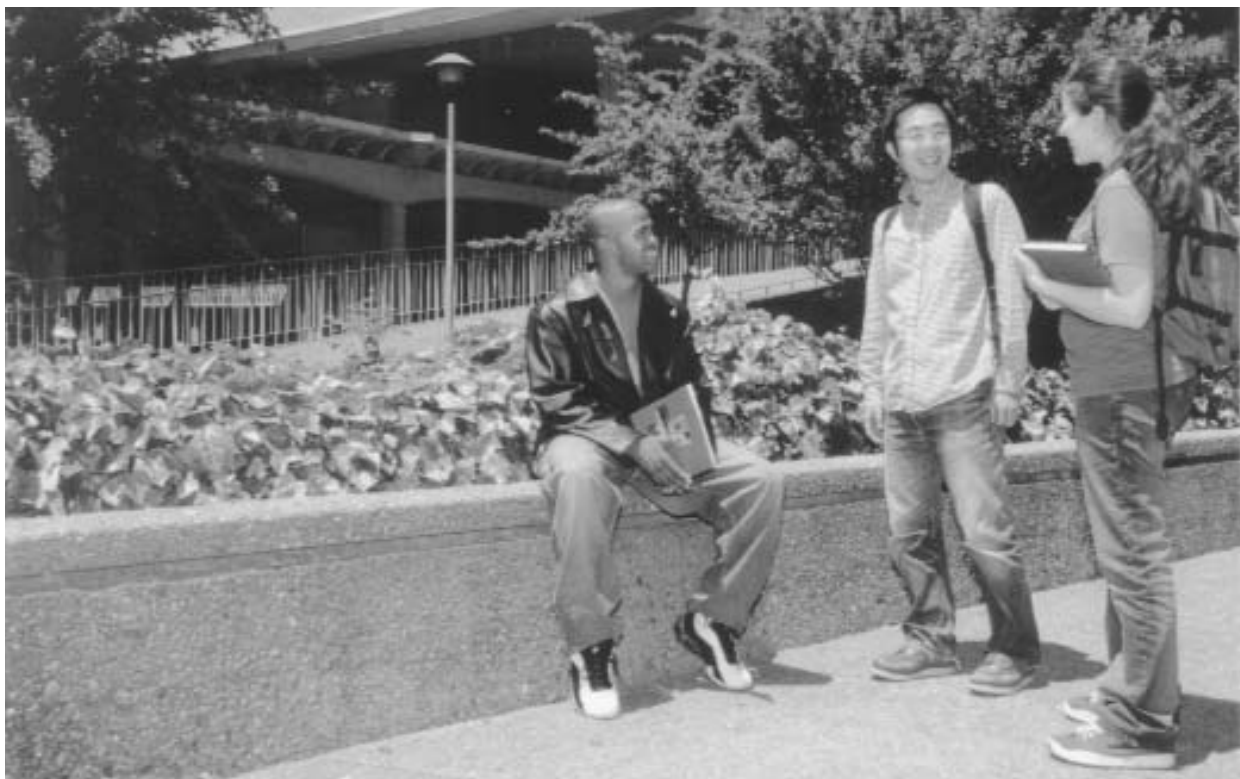
Workforce preparation and economic development experts agree: the continued vitality of the East Bay economy depends largely on the ability of its workforce preparation systems to respond to the region's growing employers. Training and Development Solutions, the contract training division of the Chabot-Las Positas Community College District, is an integral part of our region's workforce preparation system. The part of the system that will work directly with you on the recruitment, development and retention of your most valuable asset: your human capital.

With access to the highest quality resources necessary, TDS is uniquely positioned to assess the performance of your operations, identify opportunities for performance improvement, and deliver both training and non-training solutions. TDS was specifically designed to be responsive to employers, aid them in reaching defined business and work force performance goals through the delivery of flexible, customized, industry-focused, performance-based business and training solutions.

Contact TDS directly at (925) 485-5239.

COMMUNITY EDUCATION

The Community Education Program supplements the Chabot College regular instructional program by offering community members short-term, inexpensive courses in topics of general interest. Fees are modest and cover only the direct cost of each course. Enrollment is easy—there is no college application form or transcript of record required. Classes start continuously during the term. Some courses meet on campus and others are conducted over the Internet. All classes are taught by certified college faculty or by community members who are experts in their field. Courses are in a variety of areas including computer instruction, financial planning and investing, fitness and health, and recreation. For information and a schedule of classes call the Community Education office at (510) 723-6644.



Student Services provides a variety of programs and procedures through which individuals are brought into the college for instruction, assisted in career planning and development, assisted in planning for and pursuing courses of study, provided with avenues for obtaining financial aid and employment, and given an opportunity to participate in many different activities. Student Services is also responsible for record keeping and reporting in matters relating to student progress, attendance, and status, for health and emergency care procedures, and for the general supervision and control of the campus. Additional information about any of the Student Services areas can be obtained by contacting the office of the Vice President of Student Services, Room 208, Building 200, at Chabot College.

MATRICULATION AT CHABOT COLLEGE

Matriculation is a partnership which you, the student, and Chabot College agree to form for the purpose of realizing your individual educational goals. This partnership acknowledges responsibilities of both the College and YOU, the student, to reach those goals through the established programs, policies, and requirements currently in place.

Chabot College agrees to provide "Partnership to Success" which includes: An admissions process; An orientation to the college instructional programs, support services, and procedures; An assessment of basic educational skills and career goals; Counseling/advising for course selection and for developing your individual educational plan; Quality instruction; Continuous follow-up on your progress with referral to support services when needed; and Institutional research and evaluation which will monitor the effectiveness of all services provided.

YOU, the student, agree to: Express a broad educational intent upon admission and to declare a specific objective within a reasonable period of enrollment; Attend classes and complete assigned work; Confer with counselors/advisors to discuss choices; Seek support services as needed to assist you in completing course work; and maintain progress toward an educational goal according to standards set by Chabot College.

EXEMPTIONS

Students who enroll in credit courses at Chabot College may be exempted from the matriculation components as listed below:

1. *Orientation*
 - a. Non-matriculated students;
 - b. Students who have earned a previous college degree;
 - c. Students enrolling in only one activity or performance course;
 - d. Returning students who have attended a Chabot College orientation session.
2. *Assessment*
 - a. Non-matriculated students are exempt except for those students who plan to register in an English and/or mathematics course.
 - b. Matriculated students exempt from the assessment requirement include:
 - (1) Students who have been awarded an Associate or higher degree will be asked to provide verification of the degree and completion of English and mathematics requirements.

- (2) Students concurrently enrolled in high school need a permission form signed by parents and high school official, and must not be enrolling in English or mathematics courses.
- (3) Students enrolled at a four-year college or university will be required to show a current student body card and not be enrolling in English or mathematics courses.
- (4) Students who have completed previous college work in mathematics, English, and/or reading may be exempt from the placement examination upon receipt of transcripts or grade reports.
- (5) Student enrolling in ONLY performance classes (i.e., acting, drawing) or activity classes (i.e., physical education).
- (6) Students who have been individually assessed through the Disabled Student Services.

Counseling/Program Advisement

- a. Non-matriculated students;
- b. Students who have earned a previous college degree;
- c. Students enrolling in only one activity or performance course;
- d. Students who have completed a Student Educational Plan.

Any student who believes he/she is eligible for exemption from any of the Matriculation components may obtain an exemption form from the office of the Dean of Counseling, Building 100, Room 140.

Students who are exempt from one or more of the matriculation components are still encouraged to participate in the process so as to make their enrollment at Chabot College as enjoyable and beneficial as possible.

Any student who believes he/she has been discriminated against in the matriculation process (assessment, orientation, counseling, advisement) may file a grievance with the Dean of Counseling, Building 100, Room 140.

ADMISSION AND REGISTRATION PROCEDURES AND POLICIES

ADMISSION

WHO IS ELIGIBLE FOR ADMISSION?

Any person who is a high school graduate or equivalent thereof or who is eighteen years of age or older and who can profit from the instruction offered is eligible to apply for admission to Chabot College.

Concurrent Enrollment-Educational Opportunities for Minor Students: Chabot College provides the opportunity for selected minor students to enroll in college level courses. Students who desire to participate in concurrent enrollment must be recommended by their school principal and have written parental permission. Further information on the Concurrent Enrollment policy and procedures contract is available at the Office of Admissions and Records.

INTERNATIONAL STUDENT ADMISSION

Chabot College is authorized under Federal Law to enroll international students. Students seeking admission to Chabot College must first obtain an international student application packet from the Office of Special Admissions, Room 168. The application packet contains the following documents which:

- a. provide evidence of having completed the equivalent of a United States high school education
- b. demonstrate the ability to read and write English at the 12th grade level (*TOEFL-CBT test minimum score of 173 required or 500 PBT*)
- c. show means of adequate financial support and medical care
- d. provide evidence by means of a physical examination certifying freedom from active tuberculosis
- e. demonstrate support from a local sponsor, and
- f. proof of voluntary or school mandated medical insurance.

The number of international students admitted will be contingent upon Chabot College's ability to provide services as required. International students will be accepted for admission for either the Fall or Spring semester of each academic year.

For information on international student fees, see the catalog section titled "Fees and Refunds" or consult the current class schedule.

INTERNATIONAL STUDENT ACCEPTANCE POLICY

A. INTERNATIONAL STUDENT APPLICANT REQUIREMENTS:

1. Satisfactory completion of appropriate secondary education or the equivalent of a United States high school diploma.
2. Affidavit of financial support showing availability of sufficient funding for a minimum of one year. The certification document must include source of support and must be on official letterhead bearing the stamp or seal of the verifying bank.
3. Students must demonstrate English language competency sufficient to benefit from instruction at Chabot College where all courses are taught in the English language. Although the college does offer ESL courses, a comprehensive ESL program is not available. All applicants must pass the TOEFL-CBT test with a minimum score of 173 or 500 PBT.
4. Provide complete academic records, including official secondary school and post secondary academic records. (Contact the International Student Office for the names of certified translation agencies.)
5. A signed international student agreement to comply with all college/immigration requirements.
6. Contact the International Student Office for a complete application packet.

RESIDENCY REQUIREMENTS FOR ADMISSION

In determining tuition/enrollment fees, students fall under the following two categories:

Residents: Those who have legally resided in California for at least one year and one day prior to the day before the first day of instruction of a new term. Non-citizens and certain visa holders

who meet residency requirements must provide documentation from the Immigration and Naturalization Service. Visa holders should consult the Director of Admissions and Records for further information.

Non-residents (out-of-state and international students): Those who do not meet the California resident requirements as previously outlined. See section on "Fees and Refunds".

All questions concerning residence status should be referred to the Office of Admissions and Records.

ADMISSION PROCEDURES

Students who plan to enroll at Chabot College must complete and submit an Application for Admission. Application forms are available at the Office of Admissions and Records and in the class schedule and online at www.chabotcollege.edu.

Official transcripts of previous academic work are required to assist students to reach their educational objectives at Chabot College. Transcripts are also required for students who are candidates for special admissions programs, e.g., registered nursing, dental hygiene, etc., and/or services such as financial aid and scholarships, veteran's benefits, athletics, concurrent enrollment, EOPS, and international students.

COLLEGE TRANSCRIPTS

Students who desire transcripts of their academic record at Chabot College must submit a written request to the Admissions and Records Office indicating the number of transcripts requested and the designated recipient(s). Transcripts are provided only in response to a written request from the student. Official transcripts will be mailed directly to the designated recipient(s).

Copies of transcripts received from other colleges and universities cannot be forwarded to a third party (another college/university/person/etc.). Students desiring such transcripts must request them directly from the issuing institution.

READMISSION FROM DISMISSED STATUS

Students on dismissed status from Chabot College must submit a Petition for Readmission from Dismissed Status form. In order to enroll in classes, readmission must be approved by the Director of Admissions and Records. Forms are available at Admissions.

ADMISSION WITH ADVANCED STANDING

Credits earned at another accredited college or university will be applied towards an A.A. or A.S. degree from Chabot College upon receipt of official transcripts. Accreditation must have been listed in the Accredited Institutions of Higher Education manual. Credit will also be allowed for college-level courses taken at military service schools if such credit is recommended in the American Council on Education Guide.

EXEMPTION FROM NONRESIDENT TUITION

AB540 effective January 2, 2002 does not grant residency, but it does require that certain nonresident students who attended three years of high school in California and received a high school diploma or its equivalent be exempted from paying nonresident tuition. Students exempted from paying nonresident tuition pur-

suant to section 68130.5 do not become residents for eligibility purposes for any state-funded program (e.g., EOPS, BOG Fee Waiver, Cal Grant and/or the Governor's Merit Scholar Program) . This benefit is available to all US citizens, permanent residents of the US, and aliens who are not nonimmigrants (including those who are undocumented), who meet all other eligibility criteria.

REGISTRATION PROCEDURES

NEW STUDENTS

Students who have never attended the Chabot/Las Positas Community College District will need to complete the following steps for registration:

1. Complete and submit an application for admission to the Office of Admissions and Records.
2. Complete the assessment process and obtain an orientation schedule.
3. Attend an orientation session.
4. Counseling services will be provided after attending an orientation session to assist students with program planning.
5. Register for classes on or after the scheduled appointment date. Registration priority for new students is based on the date of application.

FORMER STUDENTS

Students who are not enrolled in the current term but who have previously attended the Chabot/Las Positas Community College District will need to complete the following steps for registration.

1. Complete and submit a new application for admission to the Office of Admissions and Records.
2. Former students on probation or dismissal must obtain counselor advisement and approval before proceeding with registration.
3. Former students on dismissal status must submit a Petition to Reenroll to the Director of Admissions and Records.
4. Former students in matriculated exempt status (*see Matriculation Process Exemptions, page 140*) may not be required to obtain counselor approval prior to registration. (*Please note: Exempt status does not exempt students from prerequisite requirements.*)
5. Register for classes on or after the scheduled appointment date. Registration priority for former students is based on the date of application.

CONTINUING STUDENTS

Students who are enrolled in the current semester are considered continuing students. Registration appointment notices will be mailed to all continuing students two to three weeks before the registration period begins. Instructions on how to use the telephone or on-line registration system (CLASS - Chabot/Las Positas Automated Services System) are included in the current class schedule.

Continuing Students at Chabot College will be assigned a registration priority number. The priority number is the total number of units completed at the Chabot/Las Positas Community College District followed by a random digit.

Registration appointment dates for continuing students are based on the students' priority within the following groups:

Group 1: those who have completed a Student Education Plan (SEP) (*see page 140 for Matriculation Process information on SEP*) plus the orientation, assessment components of the matriculation process

Group 2: those who have completed or are exempt from the matriculation process (assessment, orientation, counseling)

Group 3: those who have completed 2 of the 3 matriculation components (assessment, orientation, counseling)

Group 4: continuing students who do not fall under the previous three categories

REGISTRATION METHODS

Students have three ways to register for classes:

- 1) by telephone using CLASS (Chabot-Las Positas Automated Services Systems);
- 2) by the Internet using CLASS-Web; or
- 3) in person at the Office of Admissions and Records, Building 100.

CLASS (510) 781-1300 CLASS-Web www.chabotcollege.edu
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SCHEDULE OF CLASSES

Prior to the beginning of each semester, a schedule of classes is published indicating courses to be offered, the time, the instructor, and the room assignment. Important instructions are included in this publication. Class schedule is subject to change. The schedule is available online.

REGISTRATION POLICIES

PREREQUISITES

Many courses offered by the College require the completion of prerequisite courses taken at Chabot College, or their equivalent at another accredited institution. Students are advised to consult the course descriptions found in the current College Catalog for the identification of the prerequisites for a course. Courses with prerequisites are also designated in the current class schedule.

Important Definitions. If you should see the words *Prerequisite*, *Corequisite* or *Strongly Recommended* in the catalog, it is important for you to understand the definition of these terms.

Prerequisite means a condition of enrollment which a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program.

Corequisite means a condition of enrollment consisting of a course which a student is required to simultaneously take in order to enroll in another course.

Strongly Recommended means a condition of enrollment which a student is advised, but not required, to meet before, or in conjunction with, enrollment in a course or educational program.

Conditions for Challenging Prerequisite:

1. Challenging the prerequisite on the grounds that it has not been made reasonably available.

2. Challenging the prerequisite on the grounds that it was established in violation of regulation or in violation of the District-approved processes. (*Student documentation required*).
3. The prerequisite is discriminatory or applied in a discriminatory manner (*student documentation required*).
4. Challenging the prerequisite based on a student's knowledge or ability to succeed in the course despite not meeting the prerequisite (*student documentation required*).

For more information, call (510) 723-6770. Challenge forms are available from the Counseling Office or Academic Division offices.

OPEN ENROLLMENT

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 at Chabot College.

ENROLLMENT LIMITS

Students are cautioned that some classes and programs may prove to be so popular or be limited by physical facilities and/or availability of qualified instructors that all students who apply cannot be accommodated. In such event, students will be accepted on the basis of criteria established by the college.

RECOMMENDED SKILL LEVELS

For each course listed in the catalog, recommended basic skill levels have been assigned in reading and writing and, where applicable, in mathematics. Students are advised that they should have at least these skill levels for academic success. Specific course skill levels are available in the Counseling Department, Room 164.

REQUEST FOR COURSE SUBSTITUTION OR WAIVER OF PROGRAM REQUIREMENT

Students who have had substantial prior experience related to the content of a college level course and who can present adequate evidence of their competence may petition to have enrollment in that class waived without college credit for purposes of satisfying a program requirement. Petitions of course substitution or waiver of program requirements are available from the Counseling Office and from the Admissions and Records Office. Approval of the request by the Dean of Counseling at Chabot College is required prior to completion of registration. Approval shall be based on the following criteria:

1. Adequate evidence of competence as supported by transcripts, statements of employers, military or technical school certificates, etc.
2. Statement of an appropriate subject matter instructor, Dean or Counselor to validate course equivalency. Students shall be advised that courses waived receive neither unit or grade credit and that other courses may be needed to satisfy the total number of units required to complete the program of study.

STUDENT LOAD

CLASSIFICATION OF STUDENTS BASED ON UNIT LOAD

The following classifications have been established based on unit load:

Full-time student - registered for 12 or more units

Three-quarter student - registered for 9.0 to 11.5 units

Half-time student - registered for 6.0 to 8.5 units

LIMITATION ON UNIT LOAD

Eighteen units per semester is considered to be a maximum load for a student. In order to take more than the maximum, approval must be obtained from the counselor.

COURSE CONFLICT/COURSE OVERLAP

Students may not enroll in two classes that meet during any part of the same hour.

COURSE ADD PROCEDURE

Students may attempt to add into open full-term classes during the first few weeks of instruction. Add Authorization numbers are generated on a random basis for instructors to issue to students. Students are generally added from highest to lowest priority number. See Class Schedule for add deadline and procedures.

DROPPING OR WITHDRAWING FROM CLASSES

Students are responsible for dropping or withdrawing from classes. Failure to follow the withdrawal procedures may result in a grade of "F". Students who drop before the no grade of record period will not have a grade appear on their transcript. Student who drop after the no grade of record deadline and before the withdrawal deadline will have a "W" on their transcript.

Drop and withdrawal deadline dates are listed in Schedule of Classes and also online. Students must drop by phone (510)781-1300 or online www.chabotcollege.edu go to CLASS Web.

Withdrawals do not affect the students' grade point average; however, excess "W" notation may result in (1) poor progress or dismissal status, (2) full-time enrollment status, (3) eligibility for financial aid and other benefits, and (4) athletic eligibility.

WITHDRAWING WITH EXTENUATING CIRCUMSTANCES

Students may withdraw from a class with extenuating circumstances after the Withdrawal deadline and prior to finals week. Documentation must be presented verifying the situation, the instructor must approve and verify that the class is being passed with a minimum of a D grade and the Dean of Counseling must approve the request. Circumstances that will be considered are acute medical problem, acute personal or family problem, employment related problem or other similar circumstances preventing a student from completing the class.

MILITARY WITHDRAWAL

If a student is called to active military duty any time during the term, he or she is entitled to military withdrawal (MW). Servicemen and women must provide copies of their military orders to the Director of Admissions and Records.

TOTAL WITHDRAWAL

Students who intend to withdraw from the college must initiate withdrawal procedures for each class in which they are enrolled. Students are held accountable for clearing all obligations with the college including fees, library books, equipment, and lockers. The deadline for withdrawal from classes with a guarantee symbol "W" is 75% into the term. Refer to the class schedule for deadlines.

INSTRUCTORS' WITHDRAWAL OPTION

Students who miss the first meeting of a course may be dropped by the instructor. In addition, an instructor may initiate a drop if the student is absent for a total of four (4) consecutive or six (6) cumulative instructional periods and/or two (2) consecutive weeks of instruction.

REPEATING A COURSE

The college recognizes that the most recent completion of a course should most accurately reflect a student's academic progress, thus, students may repeat for credit those courses taken for which grades of D, F, or NC were received.

NOTE: Except as provided in the catalog for specific courses or in cases of extenuating circumstances, a student, by state law, is limited to ONE ATTEMPT to repeat a course for the purpose of raising a substandard grade. (D, F, or NC).

Students may not repeat courses in which they received passing grades of A, B, C, or CR. Under the following specific conditions, the Vice President of Student Services or designee may permit the repetition of courses for which a grade of C or better had been received.

1. When the student's previous grade is, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accident, illness or other circumstances beyond the control of the student; or
2. When a student should repeat a course because there has been a significant lapse of time since the student previously took the course.
3. When it is legally mandated that a student repeat a course in order to meet a training requirement as a condition of continued paid or volunteer employment.

Certain courses designated by the Academic Services may be repeated up to a maximum of three repetitions. Students should consult the College Catalog.

When a student has repeated a course and earned a grade of A, B, C, D, or CR, he/she may petition the Director of Admissions and Records to count, for grade point calculation only, the most recently earned grade. Physical Education activity courses may not be repeated for a higher grade.

Students are advised that both the original and subsequent grade will remain on their transcript and that in transferring to other institutions, they may be held responsible for all units attempted.

STUDENT ON-LINE SERVICES

The Student On-Line Service Center, located in bldg. 100, room 116, provides students on-line access to BANNER web which enables them to retrieve information regarding grades, enrollment, academic history, admission applications, assessment and registration. In addition, students can also access information for career exploration, financial aid, and transfer to colleges and universities.

FEES AND REFUNDS

(Fees are subject to Change – Consult the Current Class Schedule)

Enrollment each term is conditional upon full payment of fee assessed.

CALIFORNIA RESIDENTS – ENROLLMENT FEE

California residents, except those exempt by law, will be charged an enrollment fee of \$11 per unit for classes at Chabot College, effective Summer 2000.

NONRESIDENT TUITION

Nonresidents of California are required to pay a tuition fee of \$149.00 per unit in addition to the enrollment fee.

INTERNATIONAL STUDENT TUITION

The tuition fee for international students, non-immigrant aliens or students on other visa types is \$154.00 per unit in addition to the \$11 per unit enrollment fee. International students (F-1 visa) are required to enroll in a minimum of twelve units per semester.

MAILING FEE (OPTIONAL)

There will be a \$3.00 optional mailing fee assessed of all students each semester or session.

ASSOCIATED STUDENT ACTIVITIES FEE (OPTIONAL)

The Associated Student Activities Fee is an optional fee of \$5, charged per semester. Students paying this fee receive an activity sticker which intends to provide merchant discounts, discounts on student activities and sports. This fee helps finance student activities, Chabot College clubs, scholarships, and other student-related services.

HEALTH SERVICES FEE

Mandatory health service fee of \$12 per semester to support health services for enrolled students. Information on exemptions may be obtained from the Director of Student Life, Room 2355, Building 2300 or by calling (510) 723-6915.

REFUNDS

Enrollment Fee: Students who officially withdraw from classes during the No-Grade-of-Record period (*see Class Schedule for dead-lines*) shall be entitled to a full refund less a \$10.00 processing fee. Our refund policy complies with and is based on California law and the Education Code.

No refund will be given to students who withdraw from classes after the No-Grade-of-Record (NGR) deadline.

Non-resident tuition refunds: Refund of tuition by reason of program reductions or withdrawal from the College will be made in accordance with the schedule indicated below:

Date of Withdrawal or Reduction in Program	Refund
Prior to the first day of instruction in a regular semester, term or session	90%
During the first two weeks of instruction for a regular semester, term or session.	75%
After the second week of instruction for a regular semester, term or session.	NONE

For further information concerning tuition charges and refunds consult the Schedule of Classes.

COUNSELING

Counseling services are provided for students attending day and evening classes. Counselors are available to assist students to establish or clarify appropriate educational and vocational objectives and to help with educational, social or personal problems. Counselors can further assist individuals to participate in the educational process, to make significant choices, and to achieve increasing self-direction.

- **Academic Counseling**

Counselors help students plan their programs of study to reach their educational goals. Counselors offer assistance in exploring life goals, educational planning, and appropriate course selection. This assistance may include helping students evaluate their aptitudes and interest through the use of tests and interviews.

Students are also encouraged to seek advice from faculty members in the Division of their major interest. However, the final responsibility for the selection of proper courses rests with the student.

- **Career Counseling**

Counselors are available to assist students in identifying their career options. Career Counselors work in conjunction with resources found in Chabot's Career/Transfer Center. The Center is well stocked with the latest information, including career resource books and video cassettes, computerized systems, university and college catalogs, current career oriented magazines and information brochures. The Career Center is located in Building 100, Room 146. For more information or a career counseling appointment, call (510) 723-6720.

- **Transfer Counseling**

The Career/Transfer Center provides a wide variety of transfer information, including the latest university and college catalogs, informational programs and an annual Transfer Day and Transfer Night. Representatives from universities and colleges are also available to assist students on a scheduled basis. Students have access to Project ASSIST Articulation Agreements to 4 year institutions. The world wide web is available to research college and university information.

- **Personal-Social Counseling**

Counselors are available to students who need assistance with problems which may be affecting their academic progress. Counselors work with students to alleviate their relationship, health, or emotional concerns. The emphasis is on short term counseling. Appointments are arranged at the Counseling Division receptionist desk in Building 100. Matters discussed by the student and counselor are held in strict confidence. When appropriate, students may be referred to other professional services in the community.

ACADEMIC PROBATION

Probationary Contracts are designed for students who are experiencing sustained academic difficulties. Students are required to meet with a Counselor to review their progress, to discuss any problems that might interfere with their studies and to develop effective strategies to strengthen their academic progress. A Probationary Contract is required each semester a student is on Academic Probation before being cleared for registration.

ARTICULATION

The Articulation Office is the liaison with the University of California, California State University and private colleges and universities regarding how Chabot College courses meet general education or major prerequisite requirements, Chabot College has articulation agreements with a large number of 4-year colleges and universities. For further information regarding articulation agreements, contact the Articulation Officer, Building 100.

ASSESSMENT (TESTING)

The Testing Center is a vital part of the college's counseling services. Tests are used by counselors to assist students with individual counseling and career exploration. Students are asked to consult a counselor to plan for appropriate test instrument referral to the Assessment Center. The Assessment Center also administers tests in English, Math, and Chemistry for appropriate placement into courses. Additional information can be obtained in the Assessment Center, Building 1800, Room 1840, or call counseling services.

COOPERATIVE ADMISSIONS PROGRAM (CAP)

The Cooperative Admissions Program is an agreement between the University of California at Berkeley and Chabot College. The agreement provides guaranteed admission to applicants who meet eligibility criteria for U.C.B. but cannot be accommodated at the time of application and redirects them to Chabot College for the first two years of lower division course work. These students must reapply as transfer students after completing the requirements stated by U.C.B. on the CAP contract. For more information, contact the CAP counselor in the Counseling Office.

EARLY DECISION

The Early Decision Program is designed for local high school seniors. The Early Decision Program allows high school seniors to register for classes earlier than regular new Chabot College students. Chabot College counselors visit local high schools to present admis-

sions, assessment, program, and registration information. Students interested in participating in the Early Decision Program should obtain information from their high school counselor.

ORIENTATION

All students are strongly encouraged to attend an orientation session. The orientations program provides students with important information on academic requirements, registration procedures and campus support services to help facilitate the transition into college. It is designed to address new students' questions and concerns. Please contact the Counseling Office, 723-6718 for information.

PROGRAM PLANNING

All new students are required to meet with a counselor for assistance with assessment interpretation and/or program planning. The student should attend a Program Planning session after attending an Orientation Session.

CAREER TRANSFER CENTER

The Chabot College Career Transfer Center specializes in working with students who intend to transfer to a 4-year college or university. Resources include: college catalogs, college applications, CSU and UC workshops on majors/applications/financial aid, the latest information on transition from Chabot College to a 4-year college, as well as the opportunity to meet with representatives from those colleges. The Career Transfer Center is located in Building 100, Room 14G. For more information, students may call 723-6720.

SPECIAL STUDENT PROGRAMS AND SERVICES

EMPLOYMENT & CAREER SERVICES CENTER

The Employment & Career Services Center provides comprehensive employment and career information services to students transitioning from school to work. Included are job preparation, job search, and job placement activities; as well as career/vocational assessment and employability counseling. Students can arrange for individual appointments with career counseling faculty, attend small group workshops, access computerized job search information, and meet with the employers through the Center. On-campus student employment is also available through the Center.

The Center is located in building 2300, room 2325. Telephone number: 510-723-7228.

AMERICORPS

The AmeriCorps Program at Chabot College is a one/two year program open to all Chabot College students. The program combines coursework with volunteer service in the community. AmeriCorps provides an opportunity for students to achieve personal and professional goals while strengthening the community through addressing literacy needs of children. Students can either tutor children in local elementary schools or work at preschools with children on pre-literacy skills.

Students in the program will receive training in the following areas: literacy, diversity appreciation, conflict resolution, service-learning, first aid/CPR, safety, and classroom management. Financial assistance for books and supplies, counseling and other support services are available for AmeriCorps members.

Upon successful completion of one year, students will receive an **educational award of \$1,182/\$2,362** to be applied towards future schooling, vocational training, or to repay student loans.

Visit Building 1500, Room 1504 or call 723-6912 for more information.

TEACHER PREPARATION PROGRAM TEACHERS, EDUCATORS, AMERICORPS & MENTORS (T.E.A.M.)

The T.E.A.M. Program at Chabot College is a one/two year program open to qualified Chabot College students. The program is designed to assist future teachers/liberal studies majors gain experience working with children. The program is also designed to encourage other students to consider teaching as a career. T.E.A.M. provides an opportunity for students to achieve personal and professional goals while strengthening the community through addressing literacy needs of children. Students tutor children in local elementary schools and work with children within the classroom and in small groups.

Students in the program will receive training in the following areas: literacy, diversity appreciation, conflict resolution, service learning, first aid/CPR, safety, and classroom management. Financial assistance (**monthly - \$\$\$ - stipend**), supplies, counseling and other support services are available for T.E.A.M. members.

Upon successful completion of one year, students will receive an **educational award of \$1,182** to be applied towards future schooling, vocational training, or to repay student loans.

T.E.A.M. is a California Teacher & Reading Development Partnership (TRDP) Program.

Visit Building 1500, Room 1504 or call 723-6912 for more information.

CALWORKS

CalWORKs(California Work Opportunities and Responsibility to Kids) is the statewide comprehensive education/job training, job services, and job placement program. TANF (Temporary Assistance to Needy Families) provides time-limited benefits to TANF recipients who must be involved in work/job training activities as part of Federal Welfare Reform. Chabot has designed short-term training programs in collaboration with the County of Alameda for TANF/CalWORKs adult recipients in one-parent and two-parent families. Individualized education/training plans are developed which include classes that provide skills required for success in college and prepare the student for entering the workforce. Support services include counseling, tutoring, career assessment, job search/ preparation training, and job placement. The goal of the individualized education and training program is gainful employment. Through cooperation with the Alameda County Department of Social Services, other support services, such as child care and transportation can be provided.

CHILDREN'S CENTER

Chabot College Children's Center offers full day care to students, faculty and staff, serving children ages 3 months to five years. The Center hours are Monday through Friday 7:30 am to 4:00 pm. The Center reflects the diverse population of Chabot College both in children and families served and Center staff. The Center staff are trained Early Childhood professionals who plan and implement appropriate curriculum for children with input and collaboration from each family.

The Center is funded through the state Department of Education, Child Development Grants, Head Start and Chabot College. Child care is free for most qualifying families. The Center maintains an eligibility/wait list of interested parents. Visit the Center in Building 3500 and speak with the secretary to get on the wait list.

Due to the variety of funding sources, the Center is able to assist in providing a wide range of services for children and families as needed. Staff work closely with parents to determine needs and establish resources and referrals.

The Children's Center also serves as a training center for students enrolled in the Early Childhood Education where they work side by side with Center staff. Visit the Children's Center in building 3500, or call 723-6684 for more information.

DISABLED STUDENT PROGRAMS AND SERVICES

(THIS CATALOG IS AVAILABLE IN ALTERNATE FORMAT. CONTACT THE DISABLED STUDENT RESOURCE CENTER, BUILDING 2400 OR CALL 510-723-6725.)

DISABLED STUDENT RESOURCE CENTER

The Disabled Student Resource Center (DSRC) offers support services for students with disabilities. Any student with a verified physical, communication, psychological, or learning disability is eligible for services. Support services include direct services, programs, and campus and community referrals.

Counselors are available in the Center to assist students with academic and vocational goals. Counselors are also available for personal counseling and community referrals. Direct services include assistance with academic planning, registration, new student orientation, mobility, interpreters, reader services, and alternative testing. Available for student use are braille writers, closed circuit TVs for visually impaired, TDDs and Phonic Ears for hearing impaired, and an extensive High Tech Center with adapted computer equipment.

Students are encouraged to participate in the Able-Disabled Club. The Club sponsors activities for both disabled and non-disabled members at Chabot College.

The DSRC is located in our new Building 2400. The telephone number is (510) 723-6725 or TDD (510) 723-7199.

HIGH-TECH CENTER

Computers with state-of-the-art adaptive hardware and software make up the High-Tech Center. Programs include screen readers, screen magnifiers, voice recognition software for students

who cannot use a keyboard, and a program to assist students in reading textbooks by use of a scanner. The Center also provides other programs to help students learn keyboarding and word processing, as well as software assigned by other instructors.

LEARNING SKILLS CENTER

The Learning Skills program is designed to assess students to determine if there is a Learning Disability and to provide instruction to prepare students academically for college courses. The program includes the initial assessment of English 116, English 117 – Reading, English 118A and 118B – Reading and Writing; English 119 – Computing Skills/Problem Solving/Math; and English 120, 121 which are support classes for academic English and Math courses.

ADAPTIVE PHYSICAL EDUCATION

DSPE offers students an opportunity to design their own individualized physical education program with an instructor. Activities range from weight training and flexibility exercise to swimming and self-defense. Chabot provides a fully equipped Adaptive Physical Education gym, where students can work out on treadmills, pulleys, weights, walkers, and exercise bikes.

Adapted Physical Education courses are available for students at Chabot College with physical disabilities. Students with disabilities seeking additional information should contact the Disabled Student Resource Center, 723-6725.

VOCATIONAL REHABILITATION SERVICES

Students who have a verified physical, communication, psychological, or learning disability that impacts them vocationally may be eligible for services from the State Department of Rehabilitation. These services may include vocational counseling, training, and job placement.

Appointments may be made with a counselor by contacting the State Department of Rehabilitation, 1253 A Street, Hayward, California 94541; telephone number: (510) 881-2404. Additional information may be obtained by contacting counselors in the Disabled Student Resource Center.

EOPS/CARE

EOPS is a student academic support program for educationally and economically disadvantaged students, funded by the State of California and the Chabot/Las Positas Community College District. The program is designed to provide educational opportunity for students with academic potential who historically would have not attended college.

Specifically, EOPS provides **eligible** students with academic support services such as personal and career counseling, academic advising, priority registration, financial aid application assistance, transfer assistance, university application fee waivers, EOPS grant and work study assistance, and cultural awareness and enrichment activities.

To be eligible for EOPS sponsorship a student must meet all of the following criteria:

- Must meet California Residency Requirement

- Must qualify for a Board of Governors Waiver (BOGW A or B)
- Must be enrolled full-time (12 units) or more
- Must not have completed more than 70 semester units of college degree applicable work or more than six consecutive semester of college
- Must be determined to be educationally disadvantaged

For further information, contact the EOPS Office located in Building 200, Room 221 or call (510) 723-6909.

CARE (Cooperative Agencies Resources for Education) is a unique educational program which represents a cooperative effort between the Chabot/Las Positas Community College District, the Department of Social Services and community agencies designed to assist single parent, EOPS students achieve their educational goals and work towards achieving financial independence. Support services include: academic and personal counseling, peer support, campus and community referrals, transfer assistance and limited child care financial assistance.

To be eligible for CARE, students must be attending full-time, be eligible for sponsorship into the college's Extended Opportunity Programs and Services program (EOPS), must be currently receiving Temporary Assistance for Needy Families (TANF), and must have at least one child under the age of 14 years old.

FINANCIAL AID

Financial aid is money provided by the Federal Government, the State of California, and administered by the Chabot Financial Aid Office, to help cover costs associated with attending college at Chabot. The college provides financial assistance to eligible students through scholarships, grants, loans and job opportunities: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (SEOG), Federal Work Study (FWS), Federal Stafford Loans, Cal Grants, Bureau of Indian Affairs grants (BIA), and other external scholarships. The CA Board of Governor's Fee Waiver program will waive the fees for eligible CA residents.

Students are responsible for knowing all eligibility and renewal requirements and criteria for each type of aid they apply for or receive. The Chabot website is the best source of current information and updates. Links to apply for financial aid, information regarding state, federal and institutions policies, and additional Chabot forms for financial aid processes are available through the Financial Aid Office's web page at www.chabotcollege.edu, by clicking on Financial Aid.

Students must apply by March 2nd of each year prior to the fall semester if they wish to be considered for the Cal Grant Program, and for maximum types and amounts of all financial aid programs (including limited SEOG and FWS funds). Students applying later than this date will be considered for aid as it remains available, and in the order their applications are received, processed and awarded. Each student must reapply each year to be considered for financial aid. Students may view current, accurate information regarding their file status, eligibility, and awards on Class Web.

FINANCIAL AND ACADEMIC ELIGIBILITY

To be eligible to participate in the Title IV student financial aid programs provided by the U.S. Department of Education and the Chabot-Las Positas Community College District, **students must demonstrate both financial and academic eligibility**. Financial eligibility is determined by completion and verification of the Free Application for Federal Student Aid (FAFSA), and academic eligibility is determined by review of academic progress after each term. Maintaining Satisfactory Academic Progress requires all three eligibility criteria are met: minimum 2.00 semester and cumulative grade point average; minimum completion rate of 67% each term; and maximum period of eligibility at 150% of program length in attempted units, or credit hours.

New students are required to provide academic transcripts from prior colleges and universities for review of academic progress by the Financial Aid Office, regardless of whether or not the transcripts are required for the Admissions process, and regardless of whether or not aid was applied for or received for the prior academic attempts.

Students who are determined to be ineligible for financial aid due to failure to demonstrate satisfactory academic progress, or who have exceeded the time limits for eligibility, may request reconsideration if they have extenuating circumstances through an appeal process.

See Chabot College's Financial Aid website for detailed eligibility requirements and policies. See Class Web Financial Aid for individual financial aid file status.

INTERCOLLEGIATE ATHLETICS

Chabot College competes under the regulations of the State Commission on Athletics and is a member of the Coast Conference. Intercollegiate sports offered are Men's Baseball, Men's & Women's Basketball, Men's & Women's Cross Country, Men's Football, Men's Golf, Men's & Women's Soccer, Women's Softball, Women's Water Polo, Men's & Women's Tennis, Men's & Women's Track & Field, Women's Volleyball, Men's Wrestling and Men's & Women's Swimming.

All students meeting eligibility requirements may try out for the appropriate athletic teams. For further information, contact the Division of Physical Education & Athletics at 510-723-7203.

ATHLETIC ELIGIBILITY

In order to be eligible for competition, student athletes must successfully pass a physical health screening, maintain a cumulative 2.0 grade point average in all units attempted, and be actively enrolled in 12 units or more. Before competing in a sport for a second season, athletes must earn 24 units. Transfer athletes with prior competition at another community college must earn 12 units in residency at Chabot College in order to become eligible for competition.

An athlete may compete for a maximum of two seasons in the same sport. Athletes must adhere to a Code of Conduct which is based upon honor, honesty, fairness, integrity, and loyalty. Athletes who violate the Code of Conduct for student-athletes may lose their eligibility status. For further information contact the Division of Physical Education & Athletics 510-723-7203.

ATHLETIC FACILITIES

A 5,000 seat lighted football field and 400 meter all-weather track stadium is located in the northwest section of the campus. Other athletic facilities include an Olympic swimming pool, baseball and softball stadiums, indoor racquetball courts, a 1,500 seat gymnasium, a matted wrestling room, and strength training facilities. The unique blend of grasses in Chabot's football and soccer stadiums has attracted the National Football League. Bo Jackson's first poster for Nike was photographed on Chabot's football field.

LEARNING COMMUNITIES

DARAJA PROJECT

The Daraja Project is a set of steps, stepping stones or a stairway to success in college. More specifically, it is a year-long, accelerated writing, mentoring and counseling program which focuses on African-American authors and issues. It is designed for students who plan to transfer to 4-year colleges and universities. The program is open to all students who meet the qualifications for enrollment.

An English instructor, counselors and mentors work together as a team with students for two consecutive semesters. Students interview mentors, who are campus or community professionals, and use these interviews as the basis for writing and discussion in English classes. The mentors serve as role models, sharing their experience and knowledge. Students build a network of contacts, both on campus and in the professional community.

The Daraja Project, in existence since 1988, is an award-winning program known as one of the best opportunities for success in community-college education. Graduates have transferred to numerous colleges and universities, both in and out of state. For more information, call (510) 723-6747.

PACE PROGRAM

The PACE Program at Chabot is an A.A. Degree program for working adults which also fulfills general education transfer requirements to the California State University system. PACE classes are conveniently offered so that students may take three classes at a time by coming to school one night a week plus every other Saturday. Two majors are available: Behavioral Sciences or Liberal Studies Option II (other majors are available with additional non-PACE classes). For more information, contact the PACE office, building 700, room 765, or call (510) 723-6699 or (510) 723-6619.

PUENTE

Puente's mission is to increase the number of community college students who transfer to four-year colleges and universities. Puente prepares students to compete academically in a university environment. It is open to all students who meet the eligibility criteria.

Chabot College's Puente Project is a year-long writing, counseling and mentoring program. Included are English courses, Psychology-counseling courses, counseling support services and a mentorship. The course curriculum and content is based on Chicano/ Mexican-American/Latino writers and authors. The

courses are graded on class requirements unique to the course content as taught by the instructors. Students are required to participate in all course and project activities, i.e., counseling and mentoring. The Puente Project program year starts with the Fall semester and runs through the Spring semester. Interested students are encouraged to contact the Puente office in February preceding Fall entry. For more information, contact the Puente office, Room 120, in the Counseling Center, Building 100, (510) 723-7120.

TUTORIAL CENTER

The Tutorial Center is dedicated to supporting students in their educational endeavors by positively impacting academic success, retention and persistence. Free individual and small group tutoring is provided in specific content areas as well as a variety of techniques to enhance study skills. With the recommendation of a faculty member, students enrolled in Tutoring 29-Independent Study may earn 1/2-2 units of credit per semester through coursework combining training in tutoring skills with practical experience assignments. Up to six of these units are transferable to most colleges. Positions as paid tutors are also available.

For more information, contact the Tutorials Center, located on the second floor of Building 2300, Student Center

WOMEN'S STUDIES

The Women's Studies Project has been offering classes since Fall 1995. Particular sections of regular courses offered at Chabot – English, History and Health Science – are included. TWSP courses focus on women's issues in the context of a general education curriculum, and are open to all qualified students who are interested in this focus.

STUDENT ACTIVITIES

Student Activities plays an essential role in campus life at Chabot College. There is a multitude of events every month for students to enjoy, to experience new cultures and learn from interactive programming. Every week during the Fall and Spring semesters the Student Activities Office holds the College Hour Concert Series. The series showcases both local and Bay Area talent consisting of almost every genre of music. There are also special events throughout the year to commemorate Black History Month, Women's History Month, Asian Heritage Month and Cinco de Mayo. For the latest on what's happening around Chabot College be sure to call the Student Activities Events Hotline at (510) 723-7140. For more information on any events or to find out how to get involved, stop by the Office of Student Life in the Student Center, Building 2300, Room 2355.

ASSOCIATED STUDENTS

STUDENT GOVERNANCE AND CLUBS

Each currently registered student is a member of the Associated Students at Chabot College. The Student Senate is responsible for bringing student concerns to the academic divisions and College committees. The Student Senate coordinates the participation of students in the governance of the college and also seeks to provide them with additional scholastic, cultural, social, and recreational

activities. The Associated Students are responsible for encouraging students to participate in the out-of-class activities as important educational experience. Representatives of the Associated Students serve as members of several regional and state-wide organizations.

The Interclub Council (I. C. C.) is responsible for the coordination of clubs relating to special interests of students and for the conduct of a wide variety of on-campus social activities and events. All College clubs must be officially recognized by I. C. C. to use the College name and to participate in campus activities.

Students interested in leadership, clubs, entertainment, or just helping should contact the Associated Students President, the I. C. C. Chairperson, or the Coordinator of Student Activities upstairs in the Student Center, Building 2300.

PUBLICATIONS

The Official Chabot College student newspaper, *The Spectator*, is published weekly by the Mass Communications/Journalism instruction program. Students interested in working with the newspaper should contact the Spectator Office located in Room 1635.

SECRET ORGANIZATIONS

Membership in secret fraternities, sororities, and organizations, as described by the California Education Code (Section 76035), is prohibited. Chabot College students who participate in such groups shall be subject to the penalties outlined in the Education Code.

HAZING

Section 32050 of the Education Code makes participation in any kind of hazing a misdemeanor. Hazing is defined as "any method of initiation into a student organization or any pastime or amusement engaged in with respect to such an organization which degrades or disgraces or which causes bodily harm to any student attending any college or school in California."

SOCIAL ACTIVITIES

Numerous social activities are offered at Chabot College each semester through A. S. C. C. and I. C. C. Students interested in working on social activities and entertainment are encouraged to contact the Office of Student Life upstairs in Building 2300, Room 2355.

STUDENT LIFE

The Office of Student Life, located in Room 2355 of the Student Center is the heartbeat of campus life at Chabot College. Student Life offers a variety of services including posting publicity, on campus student employment, the housing resource board, health insurance information, community service opportunities and leadership workshops/classes. The Office of Student Life can help students achieve their goals and get the most out of the college experience at Chabot. Along with diverse services offered, the Office of Student Life oversees Student Activities, Associated Students, the Flea Market, the Student Health Center, and publishes the yearly free student handbook, a complete guide to Chabot College, in collaboration with ASCC. Students are encouraged to stop in and get involved today!

BOOKSTORE

The Chabot College Bookstore is operated as a service to the college community by authorization of the Trustees of the Chabot Las Positas Community College District.

The bookstore staff will assist you in finding the books that are required for your classes, and look forward to serving your educational needs. The bookstore is owned and operated by Chabot College.

Merchandise carried:

- textbooks
- trade books, medical and computer reference books
- dictionaries and study guides
- Apple computers
- computer software
- calculators
- computer supplies
- art, engineering, photo, and general school supplies
- medical and dental supplies
- scantrons and blue books
- greeting cards
- backpacks
- Chabot College clothing and gifts
- class catalogues and schedules
- semester parking permits
- videotape rentals for the Distance Education programs
- candy and snack foods

Location:

The Bookstore is located in building 3800 between the cafeteria and the gymnasium just off the student parking lot "B." Public telephones, local newspaper stands, and a picnic area are situated in front of the store.

General Information:

Bookstore phone number is (510) 783-9800.

Chabot College catalogues are available for sale in the Bookstore. The Bookstore will mail them to you if you send a check or money order in advance for the purchase plus shipping and handling.

The Bookstore accepts cash, checks, VISA, MasterCard, and the Discover Card for payment for purchases made in the store. You must have a valid California driver's license or ID and a Chabot College student ID for payment by check. Business checks are not accepted, and all checks must be pre-printed with your name and address. All checks are subject to the SCAN check approval system. The Bookstore may accept your parent's credit card for payment provided that you have valid identification and a note from your parent authorizing the purchase.

An ATM machine is located in the store which is available for your use whenever the store is open.

Come to the service counter to rent videotapes and for special processing such as EOPS, Veteran's, book loans, Rehab, and New Horizons.

Your personal backpacks and tote bags are not allowed in the store. The Bookstore provides coin return student lockers for your use to secure your belongings while you are shopping in the book-

store. The lockers require 25¢ to operate which is returned to you when you retrieve your belongings. Overnight use of these lockers is not permitted.

Information about the required text and prices for your classes is available one week prior to the beginning of class. The Bookstore begins selling textbooks the week before school starts. The textbook section of the store is arranged alphabetically by class subject, then by course and section number. Please bring a copy of your registration with you so that we may assist you in finding the correct books for your class. The Bookstore makes every effort to provide as many used books as possible. Shop early for the best selection of used textbooks.

For textbook inquiry, reservation, or purchase on line, go to www.chabotbookstore.com.

Textbook Return Policy:

At the beginning of the semester the bookstore will post the final date to return or exchange your textbooks for a full refund. Save your receipt. You must present your receipt if you need to return a book or any merchandise in the bookstore. In order to qualify for a full refund, your new textbook must be returned in brand new condition without any markings, scratches, damages, or bent pages. Shrink wrapped or boxed books must be returned in its original packaging in order to be eligible for a full refund. Used books must be returned in salable condition. The Bookstore reserves the right to make a decision on the refund based on the condition or salability of the merchandise.

In order to process your refund, you must present your cash register receipt dated for the current semester and your Chabot College student I.D. or a copy of your current Chabot College registration with your California driver's license or I.D.

After the refund period at the beginning of the semester, our standard return policy is two days from the date on your receipt.

The Bookstore does not accept textbook returns after the first six weeks of the semester. Summer refund dates and any changes in the refund policy will be posted in the store.

Used Book Buy Back:

During FINALS WEEK each semester, the Bookstore may buy back your textbooks for up to half of the price that you paid for the books. The price you are offered will vary depending upon whether the book has been adopted for use at Chabot College for the next semester and if the Bookstore still needs to fill our quota. If the book is not being used at Chabot, there may be a market value for the book due to national demand from other colleges, and the Bookstore may buy the book from you at a wholesale price. These books will be sent to a book wholesaler to be distributed to other colleges. If you have an out-of-date edition, your book may not have a market value. The Bookstore does not guarantee the buyback of every book. You do not need to present your receipt for the book during buy back.

The Bookstore may buy your used books at wholesale prices during the first week of classes. You may try to sell your books from prior semesters or from other colleges. Our wholesaler has a computer listing of thousands of titles. The times and dates for this special buyback will be posted in the bookstore. The best prices are offered during finals week.

TEXTBOOKS AND SUPPLIES

All students are required to furnish their own textbooks and supplies which are available at the College Bookstore. Typical costs for books and supplies average \$300 per semester for those persons pursuing a full-time program. Students financially unable to buy their own books and supplies should contact the Financial Aid Office.

STUDENT HEALTH CENTER

All students are eligible for unlimited visits to the Student Health Center located in Building 100, Room 120. Services at low or no cost include assessment, evaluation, and treatment for minor illnesses and injuries, physical examinations, over-the-counter medications, immunizations, reproductive health services, non-urgent emergency care, early illness intervention, physician referrals, and health education and advisement. The Center is open five days a week with limited evening hours. Telephone (510) 723-7625.

ALCOHOL, NARCOTICS AND DANGEROUS DRUGS

Persons possessing or being under the influence of alcohol, narcotics or dangerous drugs on campus are in violation of State law and College regulations.

DRUG-FREE WORKPLACE

Chabot-Las Positas Community College District is committed to maintaining a drug-free work/learning place in accordance with the requirements of the U.S. Drug-Free Workplace Act of 1988. The District certifies that it will provide a drug-free work-learning place by taking the actions required by the Drug-Free Workplace Act.

It is the intent of the District to make a good faith effort to continue to maintain a drug-free work/learning place through implementation of this policy.

MEDICAL EMERGENCIES ON CAMPUS

Students are advised to contact the Security Office for assistance in all cases of a medical emergency or personal injury which occurs on campus. Use any hall telephone and dial 6923 or * 16 from any pay telephone for assistance. All cases of personal injury should be reported to the Campus Safety Office in Building 2300.

HEALTH AND ACCIDENT INSURANCE

Students are responsible for providing their own health and accident insurance. For those students who do not have such coverage, health, accident, and dental policies may be purchased through the office of the Associated Students, upstairs in Building 2300. The College carries accident insurance.

HOUSING

Chabot College does not provide dormitories or other types of college sponsored housing. Through a joint housing program for Chabot students who are transferring to California State University, Hayward, eligible students may apply to live at the Pioneer Heights Apartment complex. For details see the Office of Student Life. Listings of rentals and other housing are available on the bulletin boards located in the lobby of the Student Center, Building 2300.

LOST AND FOUND

A centralized Lost and Found is located in the Campus Safety Office in room 2302, building 2300. Articles deposited with the Lost and Found are held until the end of each semester. After this period, unclaimed items will be disposed.

PARKING

Parking on campus is a privilege extended by the Board of Trustees to the faculty, staff, student body and guests. To ensure safety and the efficient use of available parking space, parking rules and regulations adopted by the Board are enforced all year round. There are no grace periods or exceptions to the parking rules and regulations without the expressed direction of the Director of Campus Safety and Security. Drivers using college parking lots shall comply with the rules and regulations adopted by the Board of Trustees pursuant to California Vehicle Code section 21113. Failure to comply with the parking rules and regulations may result in disciplinary action, the issuance of a parking citation and/or cause the vehicle in violation to be towed at the owner's expense. Please refer to the Parking Rules, Procedures, and Information bulletin or contact the Campus Safety and Security Department for more information.

PARKING PERMITS

Parking is by permit only. Student parking permits for each instructional term can be purchased at the College bookstore. Daily parking permits can be purchased for \$1 from dispensers located in all the parking lots. Permits shall be hung from the rearview mirror or displayed on the vehicle dashboard. Permit enforcement hours are Monday through Friday, 7:00 a.m.-10:00 p.m. and Saturday 7:00 a.m.-5:00 p.m. Permit parking is not enforced on Sunday and holidays identified by the college. The following fees have been set for parking in accordance with section 76360 of the California Education Code and adopted by the Board of Trustees.

- Fall/Spring Semester motor vehicle: \$20
- Fall/Spring Semester motorcycle: \$10
- Summer Session: \$10
- Daily Permit: \$ 1

NOTICE: Parking permits do not guarantee a parking space, rather, they authorize parking in available spaces. Lost or stolen parking permits must be replaced at the owner's expense. Parking fees are subject to change. Please refer to your class schedule, the bookstore, or the Campus Safety and Security Department for current fees.

PARKING LOTS

Parking lots are provided and maintained for the convenience of our campus community. Maintenance of the parking lot is funded exclusively by revenue generated through the sales of parking permits and citations. Parking is restricted to designated lots. For example, Faculty/Staff parking lots are restricted to holders of Chabot-Las Positas Faculty/Staff parking permits. Student lots are for use by students, staff, and visitors. All vehicles shall be parked clearly within a designated parking stall (between the white lines) and head in only. Motorcycles must be parked in designated motor-

cycle parking areas located in all student lots. Designated parking spaces are provided in all campus parking lots for holders of Department of Motor Vehicles disabled license plates or placards.

Do not park in white loading zones, yellow loading zones, or blue disabled spaces or access areas without proper authorization or placards. Never park, stop, or stand in any red zone, traffic thoroughfare, driveways, grass, or planter areas. Do not park, drive, stop or stand on the inner campus or athletic areas without express consent from the Director of Campus Safety and Security or his/her designee.

There are several features we offer to promote safety in our parking lots. First, the parking lots are lit during darkness up until 11:00 p.m. during days of normal operation. In addition, there are emergency call boxes strategically located throughout the campus and parking lots. Look for the blue "Call Box" signs and blue light to locate the call box nearest you. Simply follow the directions printed on the front of the call box for assistance. The following is a list of emergency call box locations:

EMERGENCY CALL BOX LOCATIONS

- CB101: Student lot B near the tennis courts
- CB102: Staff lot A near the bus stop
- CB103: Student lot E near the Child Care Center (bldg 3500/3600)
- CB104: Student lot E near building 3400 and the Depot Road Service Drive
- CB105: Student lot G near the intersection of Depot Rd. and Hesperian Blvd
- CB106: Student lot B near the entrance to the lot from Hesperian Blvd
- CB107: Student lot J near the tennis courts and physical education fields
- CB108: Student lot F near the theatres building 1200/1300
- CB 109: Student lot G near the Art building 1000
- CB 110: Soccer field area west of Student lot J and north of the football stadium

CAR POOLING

Car pooling and vanpools are encouraged. Carpool information is available at the Office of Student Life in building 2300, room 2355.

BICYCLES-MOTORCYCLES

Bicycles and motorcycles are encouraged alternatives to driving automobiles and/or mass transit. Special motorcycle parking areas are located in all of the student lots. Bicyclist can make use of bicycle racks conveniently located in Student Lot B and at buildings 700, 1900, 2900, and 3800. Please observe the rules and regulations governing the use of motorcycles and bicycles on or about the campus. Contact Campus Safety and Security in building 2300, room 2302 for more information.

PUBLIC TRANSPORTATION

AC Transit currently offers bus route 92 from the downtown Hayward BART station to the bus loop right in front of Chabot College. The current travel time from the BART station to Chabot

College takes between 12 and 20 minutes depending on the time of the day. AC Transit also offers several bus routes to Chabot College from various points throughout the county. Bus schedules and passes are available in the Office of Student Life, building 2300, room 2355 or the Disabled Student Resource Center located in building 2400. Please contact AC Transit for current schedules and rates at: (510) 817-1717 or check out their website: www.actransit.org.

We have collaborated with the Bay Area Rapid Transit District (BART) and the Alameda County Transit Authority (AC Transit) to provide easy access to Chabot College. BART tickets may be purchased in the Office of Student Life, building 2300, room 2355. For more information regarding schedules, tickets, or connections, contact BART directly at (510) 441-2778 or check out their website: www.transitinfo.org/BART.

VISITOR'S PARKING

A 20-minute visitor parking zone is provided at the entrance to Chabot College. Long-term visitor parking is available on each student lot when a daily parking permit is purchased from the \$1.00 ticket dispenser and displayed on the dashboard on the driver's side. Those visitors who have a DMV issued Handicapped Placard may purchase a daily parking permit and park in Handicapped designated areas of student lots.

VISITORS TO THE COLLEGE

Visitors to the campus are welcome but must register with the Campus Safety and Security Office, Room 2302, Building 2300, during the hours of 8 a.m. - 10 p.m., Monday through Friday, on the Chabot College Campus.

Visits to the classroom are by permit only. Non-students must obtain a permit from the Vice President of Student Services, Room 208, Building 200. **Prior permission from the instructor is also required.**

Chabot College students may visit a class other than those in which registered by obtaining prior permission from the instructor.

Permission to enter upon the property of the District, either stated or implied in other policies or practices, is subject to control of time, place and manner.

USE OF FACILITIES

It is the policy of the Board of Trustees to encourage full use of the College facilities by community groups at such times as they are not required for the educational program. It is also the policy of the Board of Trustees that such usage must be on a cost-reimbursement basis. The Office of Facility Usage located in Room 223, Building 200, provides information and processes applications for the community use of Chabot College facilities.

PETS

No live animal, fowl or reptile, whether or not on a leash or in a cage, shall be allowed in any room or area where food or beverages is prepared, stored, kept or served.

Only with a special permit issued by the Vice-President of Student Services at Chabot College, shall dogs, birds, or reptiles be permitted in any building of the campus. *Seeing-Eye dogs used by the blind are exempt from the restrictions of this rule.* No owner or keeper

of a dog shall allow or permit such dog to come on campus unless it is securely restricted by a substantial leash not to exceed six feet in length. The dog shall be in the charge of and under the control of a person competent to keep it under effective charge and control. Under no circumstances shall dogs be tethered and left unattended.

Any dogs on campus in violation of this regulation may be impounded by the College for ultimate transfer to the Alameda County Animal Control Service.

Horses, ponies, mules, donkeys or other such animals are prohibited on the campus at any time, except when authorized by special permit issued in advance by the Vice President, Business Services, and cleared with the Campus Security Service.

VETERANS EDUCATIONAL ASSISTANCE

Chabot College is approved to offer instruction to servicepersons, reservists, and other eligible persons under Title 38, United States Code and Department of Veterans Affairs regulations. The basic categories of educational assistance programs are: Montgomery G. 1. Bill-Active Duty (Chapter 30), Montgomery G. 1. Bill - Selected Reserve (Chapter 106), Veteran's Educational Assistance Program (VEAP - Chapter 32), Survivor's and Dependent's Educational Assistance Program (Chapter 35), Restored Entitlement Program for Survivors (REPS) and Vocational Rehabilitation (Chapter 31).

Students applying for any of these educational benefits are required to request official academic transcripts from each school they have previously attended to be forwarded to the Admissions & Records Office for evaluation.

Information and application for benefits may be obtained from the Chabot College Veteran's Office, Building 100, Room 192.

EDUCATIONAL BENEFITS

Chabot College is approved to offer instruction to service persons, reservists, and other eligible persons under Title 38, U.S. Code and Department of Veterans Affairs regulations. Eligibility for benefits under any of these programs is determined by the appropriate federal or state agency, not by the College.

DEPENDENTS OF VETERANS

A student who is the dependent of a veteran with a service-connected disability or who died of a service-connected cause may be eligible to receive a waiver of tuition and registration fees through the California Dependents of Veterans College Fee Waiver Program. Application forms and additional information may be obtained by contacting the local county veterans service officer, listed in the telephone directory under county government, or by calling (916) 653-2573. Approved authorization forms may be submitted directly to the Financial Aid Office.

CERTIFICATION PROCESS

New students should first enroll in the College and register into courses, following the regular matriculation process for all students. Once enrolled, students may apply for V.A. benefits by completing a V.A. Application for Educational Benefits, which is available from the Veterans Office, Building 100, and an Enrollment Certification

Request form. Students must request enrollment certification each semester. Student must notify the Chabot Veterans Office of their enrollment, major, or address changes. The Chabot Veterans Office will make necessary certifications of enrollment, changes in enrollment, and progress. Courses or programs pending state approval cannot be certified for VA benefits.

ADVANCE PAY OPTION

Certification/processing is through the V.A. Regional Center in Muskogee, Oklahoma, and generally takes about two months. New students or students who did not attend the previous term (including summer) may request certification with "Advance Pay," but must do so at least 35 days prior to the first day of the term. V.A. will subsequently forward a benefit check available when the term begins, which advances pay for the first two calendar months of the term. Veterans are encouraged to request Advance Payment if eligible.

CONTINUATION OF BENEFITS

During the first semester, all students receiving veterans educational benefits are required to (1) have submitted to the Admissions and Records Office official academic transcripts from each school previously attended, and (2) complete a "Veterans Evaluation" with a College counselor for transfer and check with Veterans Office for Certificate, A.A. and A.S. Degree, which establishes an educational plan. Courses will NOT be certified for benefits after the first semester until this is complete. Only courses which meet requirements for the major and degree objective indicated on the evaluation will be certified for payment. If the educational objective is changed, the student must complete a new evaluation. Chabot College can only certify for Certificate, A.A., or A.S. majors listed in the catalog or for transfer majors for which official articulation has been completed.

TRANSFER EVALUATIONS

Each student who is receiving funding from the Veteran's Administration is required to develop and file an Educational Plan. Counselor's are available to assist these students with their plans. For more information, or to talk to a Veteran's Office representative, students may call 723-6910.

For more information contact the Chabot College Veterans Office, (510) 723-6910 or the Veterans Administration Regional Office at 1-800-827-1000, or 1-888-442-4551.

STUDENT RIGHTS AND PRIVACY

Each student and alumnus of Chabot College has a right to (1) review the official educational records, files, documents, and other materials which contain information directly related to him or her, and (2) challenge such records that are inaccurate, misleading, or otherwise inappropriate.

It is also the policy of the College that, unless excluded by state or federal law, no record, files, documents, materials, or personally identifiable information contained therein shall be released to any individual, agency, or organization without the express written consent of the student.

Any student desiring to review his or her official educational records should contact the Office of Admissions and Records to determine procedures for such review.

Any student desiring to challenge the content of his or her official educational records should contact the Office of the Vice President of Student Services.

While the College does not provide general directory services, it may by law under special circumstances release the following information about a student: Name, address, telephone number, date and place of birth, major field of study, class schedule, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degree and awards received, and the most recent previous public or private school of attendance. Any student who does not wish such information to be released about his/her participation or status should notify in writing the Office of Admissions and Records at the beginning of each semester or session of attendance.

The College is required to comply with all federal regulations governed by the Family Educational Right and Privacy Act.

CAMPUS SAFETY AND SECURITY

MISSION STATEMENT

The Chabot College Department of Campus Safety and security, in partnership with the Hayward Police Department, is committed to providing a safe and secure learning and work environment for all members of the campus community and guests. We recognize our role as service providers and are dedicated to delivering consistent and quality service to diverse groups of people and individuals alike.

ABOUT THE DEPARTMENT OF CAMPUS SAFETY AND SECURITY

The Chabot College Department of Campus Safety and Security is comprised of a unique partnership between Chabot College and the Hayward Police Department. The director is a sworn Hayward police sergeant who is augmented by a staff consisting of a Hayward police officer, classified campus safety officers, classified dispatchers, hourly campus safety officers, and hourly student cadets. This blend of police and civilian staff affords a greater range of services to our campus community. Officers are on duty at all times when classes are in session, and on weekends and holidays to patrol the campus. Officers enforce the laws of the State of California and regulations adopted by the Board of Trustees of the Chabot/Las Positas Community College District.

Chabot College is concerned about the safety and welfare of all members of the college community and is committed to providing a safe and secure environment. Although the college has been fortunate in not having experienced a significant number of criminal incidents, it would not be honest to assume such incidents could not take place. Therefore, we have developed policies and procedures designed to prevent or minimize the potential for criminal events before they take hold. Please take the time to read the section on crime prevention, safety programs, and crime statistics or contact the Department of Campus Safety and Security for more details.

CONTACTING THE DEPARTMENT OF CAMPUS SAFETY AND SECURITY

The Chabot College Safety and Security Department public office is located in building 2300, room 2302 (adjacent to the cafeteria). When the office is closed, the on-duty security officer can be contacted by telephone in the following ways.

- From any off-campus telephone dial (510) 723-6923 or 6923 from any college phone.
- Dial *19 from any campus pay phone.
- Activate any one of the ten emergency call boxes located throughout the campus.
- **FOR EMERGENCIES DIAL 911 FROM ANY PHONE.**

REPORTING CRIMES, SUSPICIOUS ACTIVITIES, OR SAFETY HAZARDS

All members of our campus community must share responsibility in reporting crimes, suspicious activities, and safety hazards to keep our campus safe for all. Crimes against persons and violent crimes will be investigated on campus by the Hayward Police Department by the assigned campus police officer or a police officer summoned by a campus safety officer. Crimes against property will be investigated by a campus safety officer unless the incident involves a substantial loss or theft of a motor vehicle. Suspicious activities and safety hazards will be investigated promptly by the on-duty campus safety officer who will delegate the appropriate resources to resolve the incident.

CRIME PREVENTION

The most essential element of any effective crime prevention program is educating the members of the community. We offer several crime prevention tips and brochures published by the Hayward Police Department at the Office of Campus Safety and Security. Another key element to a successful crime prevention program is active participation by members of the community. Each of us can do our part to prevent crime by taking appropriate preventative measures and promptly reporting crimes or suspicious activities. Here is how you can do your part.

- Avoid isolated, dark, or less traveled areas of the campus.
- Walk in well traveled, lighted areas.
- Try to avoid walking alone at night. Stay in groups or take advantage of our Safe Ride program which offers student escorts.
- Carry a whistle, cellular telephone or other device to summon aid if you detect trouble.
- Stay alert and be aware of your surroundings.
- Become familiar with the locations of phones and emergency call boxes.
- Always lock your car and never leave valuables in sight.
- When returning to your vehicle, always have your keys in hand for a speedy entry. Check the rear seat of your vehicle before entering and immediately lock your car doors upon entering.
- Avoid working or studying in buildings alone at any time.
- Report any suspicious activity to the Department of Campus Safety and Security.

SAFETY PROGRAMS AND MEASURES

Safe Ride Program – The Department of Campus Safety and security offers escorts to the campus community to and from the parking lots. To arrange to have an escort accompany you from your classroom or office to your vehicle, dial 6923 from any college phone, *19 from any campus pay phone, or activate a nearby emergency call box. An escort will be dispatched by radio to meet you at your location.

The Department of Campus Safety and Security sponsors educational programs on a wide variety of issues related to crime prevention and personal safety. Check with the Campus Safety and Security office or Office of Student Life for details on upcoming events. In addition, the Department of Campus Safety and security is committed to keeping the campus community informed about patterns, trends, or incidents that pose a threat or substantial risk to our community. Such information is typically published in special crime bulletins posted at the office of the Department of Campus Safety and security or other campus media such as the campus newspaper, *The Spectator*.

Safety through environmental design is yet another component of effective crime prevention. Our Maintenance and Operations Department works hard at keeping the campus grounds well groomed and adequately lit during darkness. The campus grounds and parking lots are lit at nightfall until 11:00 p.m. during normal days of operation. Emergency Call Boxes and telephones are strategically located throughout the campus for your safety.

Emergency Call Boxes are outdoors in all the parking lots and adjacent to the athletic fields. They can be found by locating the blue "Call Box" signs or illuminated blue light during darkness. Simply follow the directions on the call box for assistance. The location of our emergency call boxes can be found under the parking lots section of this publication.

Emergency Campus Telephones can be found in all of our elevators and buildings. The telephones are marked "Emergency Telephone" and most are contained inside a red or white metal box mounted to the wall. Simply open the box, pick up the phone and follow the printed directions. Elevator phones will dial directly to the Campus Safety and Security Office while other phones require you dial the Campus Safety and Security extension (6923 or 6666). Please familiarize yourself with the locations of the emergency phones in the areas you travel on campus.

CHABOT COLLEGE CRIME STATISTICS

In 1998, the federal government passed The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, formerly The Student Right to Know Act of 1990. This law requires colleges and universities receiving federal funding to disclose the reported instances of criminal activity on their campuses. The following table is an accounting of mandatory crime statistics on campus.

STUDENT SERVICES

CHABOT COLLEGE CRIME STATISTICS

	1998	1999	2000	2001
Manslaughter.....	0	0	0	0
Sex Offenses				
Forcible.....	0	0	0	0
Non-forcible.....	0	0	0	0
Robbery.....	0	1	0	0
Aggravated Assault.....	5	0	4	2
Burglary.....	20	9	12	2
Theft.....	7	81	81	77
Motor Vehicle Theft.....	7	8	5	13
Arson.....	1	2	2	0
Liquor Law Violations.....	16	2	3	3
Drug Abuse Violations.....	0	0	1	0
Weapons Possession.....	4	2	2	0
Hate Crimes.....	0	0	0	0

Arrests or Referrals for Campus Disciplinary Action for:

	1998	1999	2000	2001
Liquor Law Violations.....	12	2	3	3
Drug Abuse Violations.....	0	0	1	0
Weapons Possession.....	4	2	2	0

You may contact the Hayward Police Department (510) 293-7272, for crime statistics on public property adjacent to the campus.

ACCESS TO COLLEGE FACILITIES

The college's normal hours of operation are printed on signs at every entrance to the campus. There are typically special events that take place after the normal hours of operation, however, access is restricted to the special event(s). Individuals who need to be in campus buildings or areas outside normal hours of operations must obtain authorization from their supervisor and must notify the on-duty campus safety officer of their presence. All students, faculty and staff have been issued ID cards which they may be asked to produce if there is a question about their authorization to be in a specific areas before, during, or after the normal hours of operation.

Many college buildings, classrooms and labs are protected by intrusion alarms. Do not enter the area until an instructor or authorized person has deactivated the alarm. Report any problems with safety or security of our building, facilities, or areas promptly to the Campus Safety and Security office.



ACADEMIC REGULATIONS

SCHOLASTIC STANDARDS OF CHABOT COLLEGE

The academic standards policy of Chabot College is established to assist students in making appropriate educational plans. There are two indices to academic standards: Academic Status and Academic Progress. Academic Progress is an evaluation of the student's successful completion of units. The College will advise students of their grade point average and progress in order that they may make sound self-appraisal of their college work.

GRADES

Grades are a means of communicating student achievement within courses of instruction. The suggested meaning of college grades is as follows:

- "A" — The student has been *consistently superior* in all phases of the course and has shown initiative, imagination, and self-direction well beyond that required by the instructor.
- "B" — The student has satisfied the course objectives with fairly consistent performance typically above average and demonstrates considerable mastery of the course materials.
- "C" — The student has completed most of the course objectives and requirements in a satisfactory manner as to quantity and quality of performance, including attendance and participation.
- "D" — The student has barely met the course objectives and success in advanced work is doubtful.
- "F" — The student has failed to accomplish the minimum requirements of the course and has not met the course objectives to any significant degree.
- "CR" — The student has *completed* the course with "C" or better work.
- "NC" — The student has completed the course but without credit. The student has either not taken the examination or has fallen below the grade of "C."
- "I" — The student has not completed the course, has not taken the final examination, and has made an agreement with the instructor to complete the requirements.*

*"I" (incomplete) grades represent an instructor-student agreement that the student may complete the course work by the end of the following term or semester and receive an appropriate letter grade. If the student does not complete the course work before this deadline, the right of the student to make up the work is forfeited. The "I" will be replaced with the alternate letter grade assigned by the instructor at the time the incomplete was assigned. Consequently the revised G.P.A. will be calculated.

ACADEMIC GRADE POINT AVERAGE

The Academic Grade Point Average is an index of the quality of a student's work.

Grades earned in non-degree-applicable courses (numbered 100-299) will not be used when calculating a student's degree applicable grade point average. No courses below the English 1A requirement are degree applicable.

To enable the calculation of grade point average, eligibility for honors and recognition, and other scholastic status, letter grades are converted to numerical form using the following grade point equivalents:

<i>Grade</i>	<i>Meaning</i>	<i>Grade Value</i>
A	Excellent	4 grade points per unit
B	Above Average	3 grade points per unit
C	Average	2 grade points per unit
D	Barely Passing	1 grade point per unit
F	Failure	0 grade points—units attempted with no units earned. May negatively affect Progress.
CR	Credit	0 grade points—units earned with no units attempted.
NC	No Credit	0 grade points—no units earned and no units attempted. May negatively affect Progress.
	Incomplete	0 grade points—no units earned and no units attempted. May negatively affect Progress.

The grade point average (G.P.A.) is calculated by dividing total grade points by total units attempted:

$$\text{G.P.A.} = \frac{\text{Total Grade Points}}{\text{Total Units Attempted}}$$

Example:

History 1	3 units x 3 grade points (B)	=	9 grade points
Math I	5 units x 2 grade points (C)	=	10 grade points
P.E. 1	½ unit x 4 grade points (A)	=	2 grade points
TOTAL:	8½ units		21 Total Grade Points

$$\text{G.P.A.} = \frac{21}{8.5} = 2.47 \text{ or } C$$

SCHOLASTIC HONORS

Students who graduate with "Highest Honors" (G.P.A. of 3.50 or better) and those who graduate with "Honors" (G.P.A. of 3.25 or better) are recognized at graduation.

Students who complete at least 6 units of work each semester with grades of A, B, C, D, or F yielding a semester grade point average of 3.5 or better are recognized for academic distinction by placement on the Academic Honors List and by a notation on the semester grade report and transcript.

ACADEMIC REGULATIONS

Academic achievement is further recognized by both the Sigma Rho Chapter (Chabot College) of Alpha Gamma Sigma, the California Community College Honor Scholarship Society. Individual programs and divisions may also recognize their graduates at commencement or special ceremonies. Membership eligibility and other information is available from the Office of Student Life in Building 2300, Chabot College.

ACADEMIC PROBATION AND DISMISSAL

A student who has attempted at least 12 semester units of college courses and has a cumulative grade point average of less than 2.0 will be placed on Academic Probation level I.

A student on Academic Probation I who does not raise his/her cumulative grade point average to a 2.0 or higher in the following semester will be placed on Academic Probation level II. Please note that Veterans lose their certification for Veterans benefits after two semesters of academic probation. Please refer to the colleges' Office of Veterans Affairs Academic Standards of Progress for further information.

A student on Academic Probation II who does not raise his/her cumulative grade point average to a 2.0 or higher in the following semester of attendance will be dismissed. The first time a student is dismissed he or she may apply for readmission after one semester (summer session not included) of non-attendance. In the case of a second dismissal, the student may apply for readmission after 5 years of non-attendance. Summer session does not count as a semester in determining academic status.

REMOVAL OF POOR ACADEMIC STATUS

Once a student on academic probation raises his or her overall (cumulative) grade point average to a 2.0 (C), or higher, he/she will be taken off of Academic Probation status and will become a "student in Good Standing."

PROGRESS PROBATION AND DISMISSAL

Progress Probation is determined by the percentage of cumulative units with grades of W, NC, or I (Poor Progress Grades). A student who has attempted 12 semester units of college course work will be placed on Progress Probation level I if 50% or more of the cumulative units attempted resulted in Poor Progress grades.

A student on Progress Probation I who does not reduce his/her percentage of cumulative poor progress units to below 50% will be placed on Progress Probation II.

If a student on Progress Probation II continues to have 50% or more of his/her cumulative units made up of Poor Progress grades in the following semester, he/she will be dismissed. The first time a student is dismissed he or she may apply for readmission after one semester (summer session not included) of non-attendance. In the case of a second dismissal, the student may apply for readmission after 5 years of non-attendance. Summer session does not count as a semester in determining progress status.

REMOVAL OF POOR PROGRESS STATUS

In order to reverse poor progress status and become a student in good standing a student must reduce the cumulative units of W,

NC or I grades to less than 50% of his/her total units attempted. Summer session does not count as a semester in determining progress status.

APPEAL PROCESS

Under extenuating circumstances beyond the student's control or ability to foresee, exceptions to these policies may be granted by the Director of Admissions and Records upon the recommendation of the Committee on Academic Status. The Committee on Academic Status shall consist of the Dean of Counseling, Chabot College, or the Chairperson of the College Committee on Student Services and a faculty member appointed by the Faculty Senate.

Students should see a counselor to discuss their progress or academic status and for details associated with the academic standards policy.

GRADE CHANGE DEADLINE PERIOD

Awarding grades to students is the responsibility of the instructor of the course in which the student is registered. The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetence.

When a student believes that an error has been made in the assignment of a grade, he or she should discuss the problem with the instructor. To correct an erroneous grade, a special "Request for Grade Change" form must be completed and submitted to the division Dean who will forward the form to the Vice-President of Academic Services. Final authorization to change the grade shall be granted by the President of the College or designee.

Requests for a grade change must be made during the semester immediately following the semester or session for which the grade was assigned. Responsibility for monitoring personal academic records rests with the student.

Grade changes will not be made after the established deadline except in cases with extenuating circumstances. These are acute medical, family or other personal problems which rendered the student unable to meet the deadline. Requests for a grade change under this exception shall be made to the Vice-President of Student Services or designee who may, upon verification of the circumstance(s), authorize the initiation of a grade change. The student must present evidence of the extenuating circumstance(s).

Original copies of the instructor grade reports will be retired to microfilm after a five-year retention period.

CREDIT/NO CREDIT GRADES

(UNIT LIMITATIONS MAY EXIST AT TRANSFER INSTITUTIONS)

In accordance with the Education Code and the Administrative Code, Chabot College has established a grading policy which adds the "CR" (credit) and "NC" (no credit) grades to the standard letter grades (A,B,C,D,F) used in colleges and universities. Courses in which a "CR" (credit) grade is earned will apply toward the 60 units required for graduation, but will not affect the student's grade point average. A maximum of 12 units of "CR" (credit) may be attempted and applied toward the Associate in Arts or Associate in Science Degree. (Additional units may be applied provided the student secures prior approval of the division Dean of Counseling,

A course in which a “NC” (no credit) grade is earned will not apply toward graduation and will not affect the student’s grade point average. An excess number of “NC” (no credit) grades will affect the student’s academic progress ratio, resulting in a low figure.

Offering courses for credit/no credit grades provides the student with the opportunity to explore areas outside his/her current interest field without undue concern for his or her grade point average. This policy allows the student to take coursework outside his or her major without the fear of a substandard grade, namely a “D” or “F.” Students are expected to complete the course and comply with College attendance requirements and other expectancies of the course. Should they fail to do so, their enrollment in the class may be terminated and the work may be graded on the basis of a standard letter grade.

Chabot College offers:

1. Some courses solely for a credit/no credit (CR or NC) grade.
2. Some courses solely for a standard letter grade.
3. Some courses in which the student may choose to complete the course for either a credit no credit grade OR for a standard letter grade.

On or before the last day of the fifth week of the semester, the student shall inform the Admissions and Records Office, by petition, of his or her intention to complete a course for a credit/no credit grade and the instructor shall report to the Registrar a final grade of “CR” (credit) or “NC” (no credit) for students who so petition. The student’s decision to opt for credit/no credit grade may not be reversed by either the student or the instructor at a later date.

The “CR” (credit) grade will be given to indicate completion of a course with “C” or better work.

A student may repeat a course in which a grade of “D,” “F” or “NC” (no credit) is earned.

ADMINISTRATIVE SYMBOLS “IP,” “RD,” AND “I”

Administrative Symbol “IP”—Mastery Learning Courses

The administrative symbol “IP” is established to indicate coursework “in progress.” Its use is limited to mastery learning courses. It may be used only for a student who is making satisfactory progress toward the completion of a course but who has not completed all of the modules by the end of the semester or session.

The symbol “IP” is not a grade; therefore, it has no value in calculating unit credit or grade point average.

Only one symbol “IP” may be received by a student for any mastery learning module or course. The required coursework to remove the “IP” must be completed by the end of the term or session following the date the “IP” was granted. If a student is assigned an “IP” at the end of an attendance period and does not re-enroll in and complete that course during the subsequent attendance period, the appropriate faculty member will assign an evaluative symbol (grade) to be recorded on the student’s permanent record.

Administrative Symbol “RD”—Report Delayed

The administrative symbol “RD” may be assigned only by the Director of Admissions and Records. It is to be used when there is a delay in reporting a grade due to extenuating circumstances. It is a temporary notation to be replaced by a permanent grade/symbol,

as soon as possible. “RD” shall not be used in calculating grade point averages.

Administrative Symbol “I”—Incomplete

Incomplete academic work for unforeseeable emergency and justifiable reasons at the end of the term may result in an “I” symbol being entered by the instructor on the student’s permanent record. A “grade change card” with the following documentation shall be maintained by the Director of Admissions and Records.

1. The condition(s) stated by the instructor for removal of the “I.”
2. The letter grade to be assigned if the work has not been completed within the designated time limit.
3. The letter grade assigned when the stipulated work has been completed.
4. The signature of the student.

The “I” shall be made up by the end of the term or semester following the date it was granted. The student may petition to extend this deadline date because of extenuating circumstances, but this will require the approval of the Vice-President of Student Services, or designee, and the instructor of record.

The letter grade to be assigned if work has not been completed within the designated time shall be changed following grade change procedure (page 154).

The “I” symbol shall not be used in calculating units attempted nor for grade points.

CREDIT BY EXAMINATION

Chabot College supports the general proposition that the full value of classroom learning experiences cannot be measured by any examination. Students who have achieved elsewhere an equivalent knowledge, understanding and experience to that required by regular college courses may receive units of credit based on successful completion of a comprehensive and searching course examination administered by the College. Standardized examinations may be used in specified “licensure” programs and to determine the appropriate placement of students in a field of study. The student receiving credit must be registered at the College, in good academic standing and have paid all applicable fees and/or tuition. The courses for which credit is allowed must be listed in the Chabot College Catalog. The amount of credit to be granted cannot be greater than that listed for the course in the catalog. Credit by examination is offered under the provisions of the California Administrative Code, Title 5.

Comprehensive Examination Administered by the College

1. *Eligibility*
Any student applying for credit by examination will be expected to have had extensive experiences which have prepared the person in the subject matter and for which the individual can provide acceptable evidence of those experiences at the time of application.
2. *Application and Administration*
A petition for completing a course through credit by examination must be approved by the appropriate instructor, division dean, and the Vice President of Academic Services. Applicable fees and/or tuition must be paid at the Admissions and Records

Office. Arrangements for completing the examination and the actual administration will be made between the student and the instructor after the petition is approved. The examination itself may take any appropriate form such as written, oral, demonstration or a combination of methods.

3. *Awarding of Credit*

Upon completion of the examination, the administering instructor will verify the course and number of units to be received and will assign an appropriate grade. Where the student does not achieve a grade of "C" or better, he or she will be expected to complete the course in the usual manner.

4. The Director of Admission & Records, or designee, will annotate the student's transcript to indicate that the credit was granted for the course in question by examination. This credit by examination coursework may not be counted as part of the 12-unit residency requirement necessary for graduation from Chabot College.

5. *Limitations*

Credit cannot be given for a course which is comparable to a course already credited on the student's secondary school transcript although an examination in such a course may be given to determine the level of achievement and the appropriate placement of the student in the field of study. The amount of credit which may be earned and counted toward graduation at Chabot College is normally limited to 10 semester units. Under certain circumstances, advanced placement credit may be awarded to a diploma graduate in nursing which may include up to 30 semester units (one year) of academic credit.

ACADEMIC RENEWAL

Academic Renewal, in accordance with the California Education Code sections 55764 and 557G5, is a process that permits the alleviation of substandard (D's, F's) academic coursework not reflective of the student's current scholastic ability. The grades alleviated by this process will be disregarded in the computation of the student's grade point average. Only courses taken at the Chabot-Las Positas Community College District will apply. Work completed at other institutions may be considered for graduation eligibility only.

For students to be eligible for academic renewal they must be currently enrolled at Chabot and/or Las Positas College, and a period of at least two (2) years must have elapsed since completion of the coursework to be disregarded. The student may petition the Assistant Dean of Admissions and Records at Las Positas College or the Director of Admissions and Records at Chabot College for academic renewal upon completion of the following:

1. a minimum of 12 units taken consecutively at Las Positas and/or Chabot with a grade point average of 2.5 or better,
or
2. a minimum of 20 units with at least a 2.0 grade point average.

Upon approval, the student's permanent record shall be annotated in such a manner that all courses disregarded shall remain legible on the transcript, indicating a true and accurate history of the student's record.

Students may petition for academic renewal only once. Once the academic renewal process has been completed, it cannot be reversed. A maximum of 24 units of work may be renewed.

Academic renewal at Chabot and Las Positas College does not guarantee that other colleges will accept this action. Acceptance of academic renewal is at the discretion of the receiving institution.

PROGRAM REQUIREMENT WAIVER AND/OR SUBSTITUTIONS

Students who have course work from other institutions or knowledge gained elsewhere which is equivalent to Chabot College course(s) may request course substitutions for degree or certificate requirements. Student may obtain course substitution or Waiver request forms and procedural information from a counselor.

EXAMINATIONS

Students are expected to take mid-term and final examinations in each course for which they are enrolled. Additional examinations may be scheduled by instructors at their discretion. Unless students have made prior arrangements with the instructor, the instructor is under no obligation to help a student make up an examination he or she has missed.

NOTICE OF UNSATISFACTORY WORK

Instructors may notify students of unsatisfactory work at any time during the semester. Such notices are given to the student in person or mailed to the student at his/her home address. Excessive absences, academic deficiency, and failure to submit assignments constitute reasons for notices of unsatisfactory work.

A student who receives such notices, or any student who experiences difficulty with academic achievement, is encouraged to consult with his/her instructor and counselor for assistance in planning a student educational plan.

CAPABILITY TO PROFIT FROM INSTRUCTION

Under the provisions of the California State Education Code and Governing Board Policy of this District, a student's capability to profit from the instruction offered shall be determined by evidence of the individual's:

1. capability to meet the demands of college instruction at Chabot College;
2. capability to master and proceed beyond the minimum basic skill levels required for success in college education;
3. capability to show substantial progress in cognitive and affective learning in college courses;
4. capability to show progress toward independent learning.

By this rule, the College shall determine whether a person is or is not capable of profiting from college instruction. The determination of capability to profit is a matter of composite professional judgment based upon available evidence.

Additional information may be obtained from the Office of the Vice-President of Student Services, Chabot College.

ACADEMIC REGULATIONS

IMPOUNDING STUDENT RECORDS

Whenever a student is delinquent through failure to comply with College rules and regulations, to pay debts, or to return property owned by the College, that student's records may be impounded. A student whose records are impounded shall not be allowed (1) to register for subsequent terms of instruction; (2) to receive transcripts of work completed; or (3) to receive other services of the College which relate to his/her records. When the student has cleared his/her obligation with the College, the impoundment of his/her records shall be removed.

ATTENDANCE REQUIREMENTS

It is assumed that each student will consider attendance an absolute requirement. It is the student's responsibility to attend every class the scheduled length of time. Excessive absences, tardiness, and leaving class early may be taken into consideration by instructors in assigning grades or dropping the student from the course.

REPORTING ABSENCE

Absences should be cleared directly with instructors. (Note: The size of the College prevents telephone messages being given to instructors.)

EXCESSIVE ABSENCE

A student absent for a total of four consecutive or six cumulative instructional hours and/or two consecutive weeks of instruction may be dropped from that class by the instructor. This action constitutes an official termination of class enrollment and will be recorded.

USE OF TAPE RECORDERS

Students are not permitted to make tape recordings in class or in any campus meetings without the express approval of the instructors involved. Exceptions shall be made for physically limited students who have a permit issued by the Disabled Student Resource Center. The permit is evidence of the physical need of the student to use a tape recorder and of the student's agreement to not use or allow to be used the content of the tape for any purpose(s) other than course related study.



STUDENT CONDUCT AND DUE PROCESS POLICY

The Chabot-Las Positas Community College District encourages all students to pursue academic studies and other college-sponsored activities. In pursuit of these goals, the student should be free of unfair or improper action from any member of the academic community. The District accords every student the right or protection. Students, however, are responsible for complying with college and district regulations and for meeting the appropriate college requirements. The Colleges have an obligation to maintain conditions under which the work of the colleges can go forward freely, in accordance with the highest standards of quality, institutional integrity and freedom of expression. In joining the academic community, the student enjoys the right of freedom to learn and shares responsibility in exercising that freedom. A student is expected to conduct himself or herself in accordance with standards of the college.

When a student is charged with misconduct such charge shall be processed in accordance with the district policy and procedure in order to protect the student's rights and the colleges interest. Disciplinary action may be imposed on a student for violation of law, district and college policy and regulations, the Education Code and the Administrative Code. Provisions related to disciplinary action shall be published and available to students, faculty and management staff. Student conduct may result in disciplinary action by the college and/or criminal prosecution. It is the policy of the district not to impose student discipline for acts occurring away from the college and not connected with college activities, unless the student's conduct affects the functions of the college.

A. Expulsion, Suspension and Probation of Students

A college student may be expelled, suspended, placed on probation or given a lesser sanction for good cause and in accordance with procedures consistent with due process. Good cause includes, but is not limited to, one or more of the following behaviors which must be related to college activity or attendance:

1. Cheating or plagiarism in connection with a college academic program.
2. Forgery, alteration or misuse of college documents, records, or identification or knowingly furnished false information to a college representative in connection with the performance of official duties.
3. Misrepresentation of oneself or of an organization as an agent of the college/district.
4. Obstruction or disruption, on or off campus property, of the college educational process, administrative process, or other college or district function or operation.
5. Physical abuse on or off college property of the person or property of any member of the college community or of members of his or her family or the threat of such physical abuse.
6. Theft of, or non-accidental damage to, college property, or property in the possession of; or owned by, a member of the college community.

7. Unauthorized entry into, unauthorized use of, or misuse of college property.
8. On college property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes.
9. Knowing possession or use of explosives, dangerous chemicals or deadly weapons on college property or at a college function.
10. Engaging in lewd, indecent, or obscene behavior on college property or at a college function.
11. Abusive behavior directed toward, or hazing of, a member of the college community.
12. Violation of any order of the District Chancellor, College President or designee or notice of which had been given prior to such violation and during the academic term in which the violation occurs. This includes notice by publication in the college newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this section.
13. Soliciting or assisting another to do any act which would subject a student to expulsion, suspension, probation, or other sanction pursuant to this article.
14. Harassment, including sexual harassment, in violation of state or federal law.
15. Discrimination based on race, color, religion, gender, national origin, ancestry, age, marital status, disability, sexual orientation, and/or Vietnam era or special disabled veteran status.
16. Commission of a computer-related crime.
17. Use of any electronic listening or recording device in any classroom without the prior consent of the instructor, except as necessary to provide reasonable auxiliary aids and academic accommodations to students with disabilities.
18. Persistent misconduct where other means of correction have failed to bring about proper conduct.
19. Violation of college/district parking and traffic regulations.
20. Formation of/or membership in secret organizations.
21. Violation of the district/college policy related to time, place and manner of expression.
22. Obstruction or disruption of administrations disciplinary procedures, or other college activities, including its community service activity.
23. Obstruction or disruption of teaching. Interface with the course of instruction to the detriment of other students, including but not limited to entering the classroom after the class has started and disrupting the lecture or class activities including verbal outbursts that disrupt the instructor's lesson. Failure to comply with the instruction or directives of the course instructor.
24. Disruption of classes or other academic activities in an attempt to stifle academic freedom of speech.

STUDENT RIGHTS AND RESPONSIBILITIES

25. Obtaining a copy of an examination or assignment prior to its approved release by the instructor. Selling or distributing course lecture notes, handouts, examinations or other information provided by an instructor, or using them for any commercial purpose without the express permission of the instructor.
26. Unauthorized entry to or use of college facilities, including the possession or duplication of keys to any College/ District premises, or unauthorized use of public address systems.
27. Unauthorized entry into a file, to use, read, or change the contents or for any other purpose. Unauthorized use of another individual's identification and password. Unauthorized use of phone or electronic devices such as radios, etc. Use of computing facilities to interfere with the work of another student, faculty member or college official. Use of computing facilities to send obscene or abusive messages. Use of computing facilities to interfere with normal operation of the college computing systems. Unauthorized use of the internet. Use of laser pointers anywhere on the college grounds that would cause a disruption of instruction or services, or create a hazard to any individual.
28. Failure to present registration/identification card when requested to do so by College Official or other authorized persons.
29. Failure to comply with directions of College Officials acting in the performance of their duties.

For purposes of this policy, the following definitions apply:

1. Member of the district/college community is defined as the Board of Trustees of the Chabot-Las Positas Community College District, academic, non-academic and administrative personnel and students of the district, and other persons while such other persons are on college property or at a college function.
2. Cheating is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials which are prohibited or inappropriate in the context of the academic assignment in question, such as:
 - copying or attempting to copy from others during an examination or on an assignment;
 - communicating test information with another person during an examination;
 - preprogramming a calculator or computer to contain answers or other unauthorized information for exams;
 - using unauthorized materials, prepared answers, written notes, or concealed information during an examination; and
 - allowing others to do an assignment or portion of an assignment, including the use of a commercial term paper service.
3. Plagiarism includes the deliberate misrepresentation of someone else's works and ideas, as one's own, as well as paraphrasing without footnoting the source.

4. District/college property includes real or personal property in the possession of, or under the control of the Board or Trustees of the Chabot-Las Positas District and all district facilities whether operated by the district or by a district auxiliary organization.
5. Deadly weapons include any instrument or weapon of the kind commonly known as a blackjack, sling shot, billyclub, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
6. Behavior means conduct and expression.
7. Hazing means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the college community; but the term hazing does not include customary athletic events or other similar contests or competitions.

B. The President of the college, or the Vice President of Student Services, or the official designee, may impose the following sanctions of students who violate the district/college rules and regulations.

1. Probation: verbal or written warning.
2. Temporary Exclusion: removal for the duration of the class period or of the activity.
3. Suspension: exclusion from all district classes, facilities, privileges and activities for a specified period of time as set forth in the notice of suspension.
4. Expulsion: a recommendation by the President and District Chancellor to the Board of Trustees to terminate a student's status, including exclusion from all district classes, facilities, and functions.

C. Student disciplinary action may be imposed by:

1. The Board of Trustees who alone may expel.
2. The President, the Vice President of Student Services or the official designee may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property.

A student placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within the ten (10) days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the Vice President of Student Services or designee, enter the college campus other than to attend the hearing. Violation of any condition of the interim suspension shall be grounds for expulsion.

3. An administrator may temporarily exclude the student from college sponsored or supervised activity for the duration of the activity.
4. An instructor may temporarily exclude the student from class for the remainder of the class period.

PROCEDURES

All complaints of alleged misconduct made against a student by any person should be submitted to the Vice President of Student Services. These complaints must be made in writing, specifying the time, place, and nature of the alleged misconduct. All complaints must be signed. If the Vice President of Student Services determines the complaint to be capricious, the complaint may be dismissed.

The Vice President of Student Services shall conduct an investigation of the reported incident as is appropriate. The Vice President will confer with the accused student for the purposes of advising the student of the report and of the student's rights under college rules and regulations. The Vice President may also procure information relating to the report from the accused student and other persons, including an assessment of damage to property or injury to persons. Such investigations shall be treated as confidential and shall not be placed in the student's file unless a charge is upheld and a decision is rendered by the Vice President against the student.

Following investigation, the Vice President of Student Services will render a decision in writing to the student as well as the person filing the complaint against the student (if appropriate) within five (5) working days. The Vice President may find that the complaint lacks merit; or deliver a written statement to the accused student formally charging that student with misconduct. This statement will specify one of the following actions that will be taken in the case:

1. Place on record a verbal or written reprimand.
2. Place the student on probation, temporary exclusion or suspension.
3. Recommend expulsion to the District Board of Trustees via the President of the College and the District Chancellor.
4. Assign the case for further review to a formal Hearing Committee.

The student may do either of the following:

1. Accept the Vice President's decision.
2. Notify the Vice President within two (2) working days to initiate a formal hearing.

Procedures for Formal Hearing

1. The Vice President of Student Services shall transmit to the Hearing Committee the case of any student or complaint requesting a formal hearing. Procedurally, informal action becomes formal upon the Vice President or Dean convening the Hearing Committee.
2. The Hearing Committee shall be selected as follows:
 - a. Two faculty members appointed by the Faculty Senate President.
 - b. Two students appointed by the Associated Students' President.
 - c. One person appointed by the President of the college who may be an instructor or a manager other than the Dean of Students of the Vice President of Student Services.
 - d. Committee members shall select one of their members as Chair.
3. The Hearing Committee shall conduct its proceedings as follows:
 - a. A summary record shall be provided by the Vice President of Student Services.

- b. The committee shall discuss issues, hear testimony, examine witnesses and consider available evidence pertaining to the charge.
- c. Both parties shall have the right to present statements, testimony, evidence and witnesses. The accused person may be represented by counsel or by a person of his/her choice. Each party shall have the right to question witnesses and to hear testimony.
- d. The student who is charged is presumed innocent until proven otherwise by the preponderance of the evidence.
- e. The committee shall submit its findings of facts and its recommended action to the Vice President of Student Services, a copy to the College President, the student, and to the complainant involved.
- f. The hearing shall be closed to the public unless the student requests from the Vice President at least two (2) working days in advance that the hearing be public. The Vice President may refuse such a request if confidentiality must be maintained in order to insure the rights of either party in the dispute.
- g. A summary record of the proceedings, if held in closed session, shall be kept in a confidential file by the Vice President of Student Services. All applicable guidelines as specified by the Family Education Rights and Privacy Act of 1974 shall be followed regarding student record privacy.
- h. All proceedings, from the recipient of the request for a formal hearing to the Vice President's rendering and submission to the parties involved of a written decision, are to be handled with deliberate speed and shall be completed within twenty (20) working days.

Final Action

1. The Vice President of Student Services, upon receiving the findings of facts and recommendations of the Hearing Committee, shall render a written decision, which either (a) dismisses the charge, (b) reduces the discipline recommended by the Hearing Committee, or (c) sustains the recommendations of the Hearing Committee. Copies of this decision will be given to the Hearing Committee, the Vice President of Student Services, the President of the college, the student, the complainant and other appropriate administrative officials.
2. If the student is dissatisfied with the decision of the Vice President of Student Services, a written appeal may be filed with the College President within two (2) working days after being advised of the Vice President of Students decision. Upon receipt of this appeal, the President shall review the proceedings, conduct such investigation as is deemed appropriate. One of the following actions will be taken.
 - a. Dismiss the charge.
 - b. Reduce the recommended sanctions.
 - c. Concur with the Vice President of Student Services decision.
3. The decision of the Vice President of Student Services or the President is final in all actions prescribed in this Policy except expulsion, which is a decision of the Board of Trustees.

Pending final action on the charge, the student's status shall not be altered and the person shall be allowed to be present on campus and to attend class. The Vice President may rule otherwise if the student's presence is deemed to be of danger to the student or others, or places in jeopardy college functions or property.

Expulsion

If the final recommendation in the case is expulsion from the college, this recommendation is made to the District Board of Trustees, who will make the final decision at the next regularly scheduled Board meeting. The decision of the Board of Trustees regarding expulsion is final.

Policy Definitions

1. The term (District) means Chabot-Las Positas Community College District.
2. The term (College) means Chabot College or Las Positas College.
3. The term "student" includes all persons taking courses at the College, both full-time and part-time studies. Persons who are not officially enrolled for a particular term but who have a continuing relationship with the (College) are considered "students".
4. The term "faculty member" means any persons hired by the (College/District) to conduct classroom activities.
5. The term "manager" includes any person employed by the (College/District) performing assigned administrative, professional, or staff responsibilities.
6. The term "agent of the college" includes any person who is a student, faculty member, (College/District) official or any other person employed by the (College).
7. The term "(College) premises" includes all land, buildings, facilities, and other property in the possession of or owned, used or controlled by the (College) including adjacent streets and sidewalks.
8. The term "college community" includes any person who is a student, faculty member, staff, (College/District) official or any other person employed by the (College).
9. The term "organization" means any number of persons who have complied with the formal requirements for (College) enrollment/registration.
10. The term "behavior" includes conduct and expression.
11. The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization or causes, or is likely to cause bodily danger, or physical or emotional harm, to any member of the college community.
12. The term "deadly weapons" includes any instrument or weapon of the kind commonly known as blackjack, sling shot, billyclub, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, or any knife having a blade longer than five inches, pistol, revolver, or any other firearm, any razor with an unguarded blade, any metal pipe or bar used or intended to be used as a club.
13. The term "Hearing Committee" means faculty, students and administration, authorized by the college administration to determine whether a student has violated the Student Code and to recommend imposition of sanctions.
14. The term "shall" is used in the imperative sense.
15. The term "may" is used in the permissive sense.
16. The term "Policy" is defined as the written regulations of the (College/District) as found in, but not limited to, the Student Code, and College Catalog.
17. The term "cheating" includes, but is not limited to: fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials which are prohibited or inappropriate in the context of the academic assignment in questions, such as: copying or attempting to copy from others during an exam or on an assignment, communicating answers with another person during an exam, preprogramming a calculator to contain answers or other unauthorized information for exams, using unauthorized materials, prepared answers, written notes, or concealed information during an exam, or allowing others to do an assignment or portion of an assignment for you, including the use of a commercial term-paper service.
18. The term "plagiarism" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work or another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared; by another person or agency engaged in the selling of term papers or other academic materials.
19. The term "designee" is the person(s) designated by the (College).

STUDENT GRIEVANCE POLICY

The Chabot-Las Positas Community College District encourages all its students to pursue academic studies and other college sponsored activities that will promote intellectual growth and personal development. In pursuit of these goals, the student should be free of unfair or improper action from any member of the academic community. Toward that end, the following procedures have been developed to provide every student with a prompt and equitable means of seeking an appropriate remedy for any alleged violation of the student's rights.

The district accords every student the right of protection. Students, however, must also be aware that they are responsible for complying with all college regulations and for maintaining the appropriate requirements as established by the instructor for each course in which they are enrolled. The district shall insure that the student is fully accorded due process as stated in this student grievance policy.

GENERAL PROVISIONS

Under this section, a grievance may be initiated by a student alleging violation of college/district policies and procedures. The grievance may be against another student, an instructor, an administrator or a member of the classified staff.

Processing the Grievance

When a student feels subjected to an unjust action or denied rights by a member of the academic community, the students may seek redress according to the following procedures. The following actions are grounds for student grievance:

STUDENT RIGHTS AND RESPONSIBILITIES

- a. Prejudiced or capricious decision in the academic evaluation of a student's performance.
- b. Prejudiced or capricious decision in orientation, counseling, assessment or any other matriculation procedure.
- c. Act or threat of intimidation or harassment.
- d. Act or threat of physical aggression.
- e. Arbitrary action or imposition of sanctions without proper regard to due process as specified in college procedures.
- f. Violation of student rights which are described in the college rules and regulations.

Step I — Informal Procedure

Before filing a formal, written grievance, the student shall first attempt to resolve the issue in the following manner. An informal conference should be conducted with:

- a. The person against whom the grievance is directed.
- b. The appropriate division dean or manager.
- c. The Vice President of Academic Services for academic evaluation of a student's performance (a., above under Processing the Grievance.)
- d. The Vice President of Student Services for all other student grievances (b. through f., above under Processing the Grievance.)

If the student feels that the grievance has not been resolved by any of the above conferences within five (5) working days, a formal grievance may be submitted to the appropriate vice-president.

Step II—Formal Procedure

Grievances involving prejudiced or capricious decisions in the academic evaluation of a student's performance shall be submitted to the Vice President of Academic Services for referral to the Academic Fairness Committee; all other grievances requiring further investigation shall be submitted to the Vice President of Student Services and referral to the Student Grievance Committee. Both of these committees shall be standing committees with one year appointments.

The process for submitting a formal grievance to the appropriate vice-president is as follows:

- a. The student shall complete and submit within five (5) working days a grievance form provided by the Vice-President.
- b. Upon receipt of the completed grievance form, the Vice President shall within five (5) working days, (1) request a response from the person against whom the charges are made. That person should submit a response within ten (10) working days (failure to respond within the defined time lines will not delay the processing of the grievance); and (2) refer the grievance materials from both parties to the chair of the (appropriate) committee. The committee chair will convene the committee to conduct formal hearings; establish findings of facts, and recommend action for resolution.

The Vice-President shall also advise the student of the investigation that will ensue.

- a. The Academic Fairness Committee shall be established as follows:
 - (1) The Academic Senate shall appoint two standing members. A third appointment shall be made at the

time of the grievance to ensure that one faculty member be named who has specific knowledge of the academic discipline involved. Should one of the standing members be a party to the grievance, an alternate will be named.

- (2) The Associated Students shall appoint one student to serve as a standing member for a one-year term. Should the standing member be a party to the grievance, an alternate will be selected.
 - (3) The President of the college shall appoint one member who may be a student, an instructor, a member of the classified staff, or an administrator other than the Vice President of Academic Services or a member of that vice president's administrative staff.
 - (4) The Committee shall select one of their members to be chair.
- b. The Academic Fairness Committee shall conduct its proceedings as follows:
 - (1) A record of all information in the possession of the vice president shall be given to the Committee chair. The Committee shall make every reasonable effort to conduct its hearing and present its findings and recommendations within fifteen (15) working days of receiving the grievance.
 - (2) The Committee shall discuss issues, hear testimony, examine witnesses and consider all available evidence pertaining to the charge.
 - (3) Both parties shall have the right to present written or oral statements, testimony, evidence and witnesses. Each party may be present at the hearing and be represented by a person of his/her choice. Each person has the right to question witnesses and hear testimony.
 - (4) The Committee shall judge the relevancy and weight of testimony and evidence and make its findings of facts, limiting its investigation to the formal charge. The Committee shall also make recommendations for the disposition of the charge.
 - (5) The hearing shall be closed to the public unless the student requests from the Vice-President at least two (2) working days in advance that the hearing be public.
 - (6) The Committee shall submit its findings of facts and recommend action within seven (7) working days after the hearing to the Vice-President, with a copy to each party and the President of the college.
 - (7) A summary record of the proceedings will be the responsibility of the chair of the Committee, if the hearing is held in closed session. These proceedings shall be kept in a confidential file by the Vice-President and shall be available at all times to both parties.
 - c. The Student Grievance Committee shall be established as follows:
 - (1) The Associated Students shall appoint two standing members. Should one of the standing members be a party to the grievance, an alternate will be named.
 - (2) The Academic Senate shall appoint two standing members. Should one of the standing members be a party to the grievance, an alternate will be named.

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- (3) The President of the college shall appoint one member who may be an instructor, a member of the classified staff, or an administrator other than the Vice-President or a member of the Vice-President's administrative staff.
- (4) The Committee shall select one of their members to be chair
- d. The Student Grievance Committee shall conduct its proceedings as follows:
- (1) A record of all information in the possession of the Vice President shall be given to the committee chair. The Committee shall make every reasonable effort to conduct its hearing and present its findings and recommendations within fifteen (15) working days of receiving the grievance.
- (2) The Committee shall discuss issues, hear testimony, examine witnesses and consider all available evidence pertaining to the charge.
- (3) Both parties shall have the right to present written or oral statements, testimony, evidence and witnesses. Each party has the right to be present at the hearing and be represented by a person of his/her choice. Each person shall have the right to question witnesses and hear testimony.
- (4) The Committee shall judge the relevancy and weight of testimony and evidence and make its findings of facts, limiting its investigation to the formal charge. The Committee shall also make recommendations for the disposition of the charge.
- (5) The hearing shall be closed to the public unless the student requests from the Vice-President at least two (2) working days in advance that the hearing be public.
- (6) The Committee shall submit its findings of facts and recommended action within seven (7) working days to the Vice-President with a copy to each party, and the President of the college.
- (7) A summary record of the proceedings will be the responsibility of the chair of the committee, if the hearing is held in closed session. These proceedings shall be kept in a confidential file by the Vice-President and shall be available at all times to both parties.
- e. Final action for all grievances: the Vice-President, upon receiving the findings of facts and recommendations of the committee, will review the proceedings of the Committee, conduct such investigations as are appropriate and take one of the following actions:
- (1) Concur with the Committee's recommendations.
- (2) Reduce the recommended sanctions.
- (3) Dismiss the charge.
- If (2) or (3) should occur, the Vice-President shall convene the Committee for further discussion and consultation.
- The decision by the Vice-President shall be rendered within seven (7) working days and transmitted, in writing, to the accused person, the appropriate committee, the President of the college and the student filing the grievance.
- f. The accused or the aggrieved person may write an appeal of the decision made by the Vice-President to the President of the college within seven (7) working days. Upon receipt of the appeal, the college President will review the proceedings of the Committee, conduct such investigations as are appropriate and take one of the following actions:
- (1) Concur with the Committee's recommendations.
- (2) Reduce the recommended sanctions.
- (3) Dismiss the charge.
- If (2) or (3) should occur, the college President shall convene the Vice-President and Committee for further discussion and consultation.
- The decision by the President shall be rendered within seven (7) working days and transmitted, in writing, to the accused person, the Committee, the Vice-President and the student filing the grievance.
- g. If the accused or aggrieved person is dissatisfied with the college President's decision, a written appeal may be filed with the Chancellor within seven (7) working days. Upon receipt of the appeal, the Chancellor will review the proceedings of the Committee, conduct such investigations as are appropriate and take one of the following actions:
- (1) Concur with the Committee's recommendations.
- (2) Reduce the recommended sanctions.
- (3) Dismiss the charge.
- The decision by the Chancellor shall be rendered within fourteen (14) working days and transmitted, in writing, to the accused person, the Committee, the President, the Vice President and the student filing the grievance.
- h. If the accused or aggrieved person is dissatisfied with the Chancellor's decision, a written appeal may be filed with the Board of Trustees within fourteen (14) working days. Upon receipt of the appeal, the Board of Trustees will review the proceedings of the Committee, conduct such investigations as are appropriate and take one of the following steps:
- (1) Concur with the Committee's recommendations.
- (2) Reduce the recommended sanctions.
- (3) Dismiss the charge.
- The decision by the Board of Trustees shall be rendered within twenty-one (21) working days and transmitted, in writing, to the accused person, the committee, the Chancellor, the President, the Vice-President and the student filing the grievance. The decision of the Board of Trustees shall be considered the final step that may be taken under academic grievance and due process.
- i. Retaliation: Any retaliatory action of any kind by an employee or student of the district/college against any student as a result of filing a grievance under these procedures, cooperating in an investigation, or other participation in these procedures is prohibited, and may be regarded as the basis for disciplinary action.

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Age

Chabot College complies with the Age discrimination in Employment Act of 1974 which prohibits discrimination in employment on the basis of age.

Disability

Chabot College does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the regulation adopted thereunder prohibit such discrimination.

Race, Color, or National Origin

Chabot College complies with the requirements of Title VI of the Civil Rights Act of 1964 and the regulations adopted thereunder. No person shall on the grounds of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program of the colleges. Chabot College complies with Title VII of the Act, which includes nondiscrimination on the basis of religion and sex. Limited language skills are not a barrier to occupational programs and services of the colleges.

Sex

Chabot College does not discriminate on the basis of sex in the educational programs or activities it conducts. Title IX of the Educational Amendments of 1972, as amended, and the administrative regulations adopted thereunder prohibit discrimination on the basis of sex in education programs and activities operated by the colleges. Such programs and activities include admission of students and employment.

SEXUAL HARASSMENT

Chabot College desire to maintain an academic and work environment which protects the dignity and promotes the mutual respect of all employees and students. Sexual harassment of employees or students will not be condoned. In general deliberate verbal comments, gestures or physical contact of a sexual nature that are unsolicited and unwelcomed will be considered harassment (Title VII of the Civil Rights Act of 1964).

Inquiries concerning the application of these policies to programs and activities may be referred to the following officers assigned the administrative responsibility of reviewing such matters:

Employee Concerns:

District Human Resources Director
Telephone (925) 485-5235

Student Concerns:

Vice-President of Student Services
Telephone (510) 723-6744

Disability Related Concerns:

Vice-President of Student Services
Telephone (510) 723-6744

Inquiries may also be addressed to the Regional Director of the Office of Civil Rights, Region 9, 1275 Market Street, 14th Floor, San Francisco, CA 94103.

DECLARACION DE NO DISCRIMINACION

Chabot College, de acuerdo con las leyes civiles, declara que no discrimina hacia ninguna persona a base de su raza, color, nacionalidad, ascendencia, religion, creencia, sexo, edad o incapacidad, en sus programas y politicas de empleo y educacion. El conocimiento limitado del idioma no limita acceso a programas y servicios ocupacionales. Cualquier pregunta sobre la aplicacion de esta declaracion puede dirigirse a Vice-President of Student Services; Chabot College, telefono (510) 723-6744 (asuntos de estudiantes); a Human Resources Director, telefono (925) 416-2085 (asuntos de empleo); a Melinda Matsuda Room 208, telefono (510) 723-691G; o al Regional Director of the Office of Civil Rights, Region 9, 1275 Market St., 14th Floor, San Francisco, CA 94103.

AMERICANS WITH DISABILITIES ACT (ADA)

In accordance with Section 504 of the Rehabilitation Act of 1973 and the 1990 Americans with Disabilities Act (ADA) the Chabot Las Positas Community College District prohibits discrimination against students and employees with physical or mental disabilities that substantially limit activities such as working, walking, talking, seeing, hearing, or caring for oneself. People who have a record of such an impairment and those regarded as having an impairment are also protected.

The college ensures that students with disabilities will not be unlawfully subjected to discrimination or excluded from participating in or benefiting from programs, services or activities. Students are accorded due process as outlined in specific complaint procedures developed by the College.

Students with disabilities at the College have the right to:

- access courses, programs, services, activities and facilities offered through the College;
- an equal opportunity to learn and receive reasonable accommodations, and/or auxiliary aids and services;
- be assured that all information regarding their disability is kept confidential;
- disclose their disability directly to faculty.

Students with disabilities at the College have the responsibility to:

- meet all fundamental course requirements and qualifications and maintain essential institutional standards for courses, programs, services, employment, activities and facilities;

- identify themselves to the Disabled Student Resource Center (DSRC) as an individual with a disability when an accommodation is needed and demonstrate and/or document (from an appropriate professional) how the disability limits their participation in courses, programs, services, employment, activities and facilities;
- actively work in partnership with faculty and DSRC staff to develop reasonable accommodations appropriate to their disability; and
- comply with the Academic Accommodations Procedures for requesting and utilizing DSRC services.

For information regarding filing complaints based upon discrimination on the basis of physical or mental disability, students should contact the college ADA/504 Coordinator. Vice-President of Student Services, Melinda Matsuda in Building 200, Room 208.

CAMPUS POSTING POLICY

The posting, distributing or disseminating of printed materials that advertise, publicize or otherwise provide notice of activities, events or information are subject to the following regulations.

1. All printed materials must indicate the name of the sponsoring individual, department, or registered club or organization.
2. All printed materials written in a language other than English must be accompanied by an English translation.
3. Any printed material deemed to be slanderous, libelous, grossly obscene, offensive or pornographic will not be accepted for posting.
4. The Dean of Students supervises and authorizes all campus publicity including posting of flyers and banners and distributing hand-outs or products.
5. Except as specified in these guidelines, no printed material may be placed on or against, attached to, or written on any structure or natural feature of the campus, such as, but not limited to doors, windows, building walls, walkways, roads, posts, fences, waste receptacles, trees, plants or shelters.
6. No printed materials may be left unattended on campus grounds or inside campus buildings without prior permission of the Dean of Students or the Dean responsible for the specific building.
7. Publicity may not be affixed or inserted into campus lawns or grounds.
8. Publicity may not be affixed to or left on cars in Chabot College parking lots.
9. The use of the Chabot College name or logo is limited to authorized or official publicity. It may only be used by a registered student club with approval of the Director of Student Life.

Posting Areas

At Chabot College, the Office of Student Life is responsible for posting of all materials on campus, in designated locations. This service is offered at no charge to all college departments, clubs and organizations, and for a minimal fee to non-affiliated and off-campus organizations. Academic and administrative department bulletin boards (usually located in specific department buildings) are maintained by each department. Permission for posting at these locations must be obtained individually from each area Dean.

Flyers are posted on Tuesdays and Fridays during the regular school year, for up to two weeks. Due to space limitations, flyers must not exceed 8 1/2" x 14" in size. Exceptions to this must be pre-approved and are subject to space availability. Posting for summer and holidays may vary. All items to be posted must be received by 5 pm on the day prior to the posting day desired, at the Office of Student Life, Building 2300, Room 2355. Approved posters will be stamped and posted. Any displayed posting not in the designated areas or not displaying the approved posting stamp, will be removed immediately. Repeat offenders found to be posting illegally will lose future rights to have materials posted at Chabot College. There is a limit of 25 flyers to be posted for any one event or program.

Special Posting for Housing Availability, Employment Opportunities, Community Service/Volunteer Opportunities and Car Pooling/Transportation can be done at no cost through the Office of Student Life. Enclosed glass cases for each area are updated regularly. Preprinted forms for each specific area can be completed in Room 2355.

**CHABOT-LAS POSITAS
COMMUNITY COLLEGE DISTRICT**

**5020 FRANKLIN DRIVE,
PLEASANTON, CA 94588**

ACADEMIC ADMINISTRATORS

COTA, SUSAN A., 1991; A.A., Immaculate Heart College; M.S., San Francisco State University; Ed.D., University of San Francisco; Chancellor
KINNAMON, JOEL L., 2002; B.S., Oklahoma State University; M.B.A., Oklahoma City University; Ed.D., Nova Southeastern University; Vice Chancellor, Educational Services and Planning
ROE, LESLIE J., 2000; B.A., California State University, Sacramento; M.A., University of Phoenix; District Dean, Economic Development and Contract Education.
STUTZMAN, ROY V, 1999; B.A., University of Wyoming; M.A., University of Colorado; Vice Chancellor of Business Services.

NON-ACADEMIC ADMINISTRATORS

ARIES, JENNIFER L.	District Director, Public Information and Marketing
BREWINGTON; MAZIE L.	Controller
DOBS, STAN R.	District Director, Facilities Planning & Management
FLORES, MARIA A.	Assistant Controller
HERMIS, PAUL S.	Contract Education Sales/Account Manager
METHE, JEANNINE P	Chief Technology Officer
NELSON, TIM C.	Director, Maintenance & Operations
PFEIFFER, SUZANNE E.	Manager, Employee Benefits
PUSTELNIK, GREG C.	Manager, Purchasing and Warehouse Services

NON-ACADEMIC ADMINISTRATORS

25555 HESPERIAN BOULEVARD, HAYWARD, CA

GERRITS, THOMAS L.	Assistant Manager, Management Information Services
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FACULTY OFFICE HOURS

Chabot College is noted for the close relationship of the faculty with students. The educational benefits of the student being able to know and talk personally with his or her instructor is recognized. Each member of the full-time faculty schedules office hours each week for this purpose. This schedule is posted outside the instructor's office. Students are encouraged to take advantage of this opportunity, the benefits of which include:

- Assistance in understanding and achieving specific course expectancies.
- The development of concepts and understandings beyond the course expectancies.
- Insights into career opportunities within the instructor's area of expertise.
- Encouragement, assistance, and direction in meeting both educational and personal needs.
- A continuing association with a member of the academic community.

CHABOT COLLEGE

ACADEMIC ADMINISTRATORS

BUDD, DEBORAH F., 1999; B.A., University of California, Santa Barbara; M. A., Stanford University; Dean, Physical Education and Athletics.
CARLSON, ROBERT E., 2002; B.A., M.A., Southern Illinois University; Ed.D., Virginia Polytechnic Institute & State University; President
GROPETTI, EUGENE P., 1975; B.A., University of the Pacific; M.F.A., Ohio University; J.D., University of the Pacific, McGeorge School of Law, Dean, Humanities & Language Arts
GUNTER, MICHAEL R., 2002; M.B.A., University of West Florida; Ph.D., Nova South Eastern University; Dean of Information & Technology
JAHNKE, SARAH A., 1998; B.A., University of Northern Iowa; M.S., Mankato State University; Dean, Health and Natural Sciences.
MALONEY, MARGARET, E., 1998; B.A., Mundelein College, Chicago; M.A., San Francisco State University; Dean, Social Sciences and Community Education.
MATSUDA, MELINDA K., 1985; B.A., M.A., California State University, Hayward; Vice President, Student Services.
NOLDON, DENISE F, 1999; B.A., M.S., California State University, Long Beach; Ph.D., University of Maryland; Dean of Counseling.
O'MAHOONEY, WILLIAM J., 2001; M.Ed., Washington State University; B.T, University of Alaska; Dean of Business and Workforce Development.
VECCHIARELLI, CARLO E., 1968; B.S., M.A., California State University, Hayward; Deall, Mathematics, Computer Sciences and Engineering

NON-ACADEMIC ADMINISTRATORS

CURL, DIANA E., Manager, Children's Center
CURRY, ROBERT N., Vice President, Business Services
GUTIERREZ, ANTHONY, Director, Student Life
KASER, KAFH.I.FFN P, Manager, Bookstore.
LINZMEYER, KATHRYN, Director, Financial Aid
NAKANO, WAYNE K., Assistant Manager, Bookstore.
PIATETSKY, STEVEN S., Director Media Services
TALMO, RICHARD D., Executive Director of the Foundation
YOUNG, JUDY, Director, Admissions and Records

FACULTY

FACULTY SENATE—JAMES MATTHEWS, PRESIDENT

ABSHER, MICHAEL S., 2002; A.A., Chabot College; Machine Tool Technology
ALEGRE, JOSE REYES M., 1990, A.A., Saddleback College;
B.A., M.A., California State University, Fullerton; Mathematics.
ALEX, DAN A., 1975; B.S., M.A., California State University, Hayward; D.A., Idaho State University, Biology.
ALEXANDER, MARION W., 2000; B.A., College of William and Mary, Virginia; M.A., San Francisco State University; Ph.D., University of California, Davis; Mathematics.
ALEXANDER, NICHOLAS V, 1988; B.S., University of California, Berkeley, Ph.D., Stanford University; Physics.
ALLEN, KATHLEEN R., 1997; A.A., Las Positas College; B.A., California State University, Hayward; M.A., San Francisco State University; Disabled Students Programs and Services (DSPS).
AMBRIZ, NORMAJ., 1991; A.A., Hartnell Community College; B.S., M.S., San Diego State University; Psychology/Counseling.
ANDERES, E. DESRE, 1995; A.B., M.A., San Diego State University; Geography.
ARNOLD, CAROLYN L., 1992; A.B., Smith College; Ph.D., Stanford University; M.S., Stanford University; M.A., San Francisco State University; Institutional Research.
AROVOLA, DAVID E., 1970; B.A., M.A., San Jose State College; Speech.
ARROYO, RONALD D., 1984; B.S., University of San Francisco; M.A., San Diego State University; Counselor.
AUGUST, JR., ROBERT H., 2002; B.S., Armstrong Atlantic State University; M.S., Western Kentucky University; Mathematics.
BARAN, FE L., 1989; B.A., St. Theresa's College, Philippines; M.A., University of California, Los Angeles; English/ESL.
BARDE, LINDA J., 1975; B.A., California State University, Hayward; M.S., California State University, San Francisco; M.A., College of Notre Dame, Belmont; Therapeutic Recreation, Sign Language.

ADMINISTRATION, FACULTY AND STAFF

- BATCHELOR, EGL T., 1991; B.S., M.S., California State University, Hayward; Mathematics.
- BAUMANN, CAROL A., 1989; B.A., Simmons College; M.S., School of Library and Information Science; Librarian.
- BEAL, LARRY A., 1975; A.A., American River Junior College; B.A., Sacramento State University; M.B.A., Golden Gate University; Computer Application Systems.
- BERG, JANE C., 2002; A.A., Chabot College; B.A., University of California, Berkeley; M.A., San Francisco State University; Assistive Computer Technology.
- BERLAND, JOSEPH H., 1989; B.A., University of California, Los Angeles; M.S., California State University, Los Angeles; Mathematics.
- BOTELHO, RICHARD E., 1981; B.A., M.A., San Jose State University; Physical Education.
- BOWMAN, MYRNA L., 1973; R.N., Kaiser School of Nursing; B.S., M.S., University of California, San Francisco; Nursing.
- BRAGANZA AGNELLO F., 1990; B.S., Makerere University; M.S., West Virginia University; Ph.D., University of California, Davis; Biology.
- BRESLAUER, RUSSELL L., 1980; B.S., M.S., University of California, Berkeley; Computer Application Systems.
- BUCHWALD, NORMAN I., 2000; B.A., California State University, Northridge; MFA, Colorado State University; MLIS, University of Southern California; Librarian.
- BUTLER, DAVID W., 1983; B.S., California Polytechnic, Pomona; M.L.S., Ph.D., University of Pittsburgh; Librarian.
- CAIN, LARRY A., 1982; A.A., Los Angeles Valley College; A.B., M.A., University of California, Berkeley; English.
- CARNEY, CEINWEN L., 1989; B.A., Occidental College; M.A., University of California, Berkeley; English.
- CHAUDHURI, INDRANI, 2000; B.S., M.S., Calcutta University, India; M.A., San Francisco State University; Mathematics.
- CHOWENHILL, DENNIS C., 1977; A.A., Los Angeles Harbor College, Wilmington; B.A. California State University, Chico; M.A. University of Florence, Italy; Ed.D., University of California, Berkeley; English.
- CHUN, DESMOND K., 1990; B.S., University of Southern California; B.S., California State University, Hayward; M.B.A., Golden Gate University; Computer Science.
- CHURCH, JANE C., 1992; A.B., San Diego State College; M.S., National University; M.S., San Diego State University; Counselor
- COCKERHAM, RUDOLPH C., 2002; B.A., Humboldt State University; B.S.N., M.S.N., Samuel Merritt College; Nursing
- COLLINS, ROBERT W., 1968; B.A., San Jose State University, M.A., California State University, Hayward; Biological Science.
- CONWAY, CAROL Y, 1976; B.S., University of Chicago; M.A., University of California at Los Angeles; Computer Science/Mathematics.
- COOPER, LYDIA E., 1980; B.S., College of Notre Dame; M.B.A., University of Santa Clara; Business.
- CORBETT, RUTH A., 1983; A.A., Chabot College; B.A., California State University, Hayward; M.A., California State University, Hayward; Political Science.
- COSTELLO, ANTHONY J., 2002; B.A., San Jose State University; M.A., United States International University; M.A., St Mary's College of California; Physical Education/Head Men's Basketball Coach
- COWAN, NANCY L., 1976; R.N., B.S., University of Oregon; M.S., University of California at San Francisco; Ed.D., Nova Southeastern University; Nursing.
- CREW, JAMES D., 2002, A.A., Chabot College; B.S., M.S., California State University, Hayward; Mathematics
- DALE, VALJEAN, 1998; B.A., M.A., John F Kennedy University; Counseling.
- DAPRATO, STEVEN L., 2001; B.A., M.A., California State University Sacramento; Physical Educational/Head Football Coach.
- DAVE, TIMOTHY A., 2000; B.A., University of California, Berkeley; M.S., Brown University; Physics/Astronomy
- DAVIS, MATTHEW A., 1992; B.A., California State University, Sacramento; M.A., California State University, Sacramento; Mathematics.
- DAVIS, PETER K., 1976; B.S., Weber State College; M.A., University of California, Berkeley; Physical Education.
- DEWIT, THOMAS W, 1991, B.A., University of California, Berkeley; Secondary Education Credential. San Francisco State University; M.A., University of Virginia; English.
- EBERHARD, KENNETH R., 1969, B.S., M.S., California State University, Hayward; Mathematics.
- EGUSA, JERRY R., 1977; B.S., M.A., Santa Clara University; M.A.T, College of Notte Dame; M.A., Ed.D., University of San Francisco; Learning Skills.
- ESQUIERDO, EUGENE J., 1991; B.F.A., M.F.A., California College of Arts and Crafts, Oakland; Art.
- FLYNN, ELIZABETH A., 1970; B.A., Mt. St. Vincent; M.A., Ph.D., University of Wiscotin; English.
- FOUQUET, DAVID D., 1992; B.A., University of California, Los Angeles; M.A., University of California, Santa Cruz; Mathematics.
- FRIEND, STEVEN K., 1993; B.S., San Jose State University; M.S., St. Marys College; Physical Education.
- GALLIANO, JOSEPHINE A., 2000; B.A., M.A., University of San Diego; Dental Hygiene.
- GARCIA, MELVA Y, 1992; B.A., M.S., California State University, Hayward; Counselor.
- GIBSON DONNA, 1993; B.S., Stockton State College; M.S., Cornell University; Chemistry
- GILL, SUSAN M., 1988; B.S., M.A., University of Wisconsin, M.P.H., University of California, Berkeley; English.
- GILLIS, CHRISTINE A., 1989, B.S., University of New Mexico; M.S.N., San Jose State University; Nursing.
- GLEN, CHAD M., 1993; A.A., Chabot College; B.A., M.A., San Francisco State University; Mass Communications.
- GOLDEN, CAROL J., 1995; B.A., University of California, Santa Barbara; M.P.H., University of California, Los Angeles; Dental Hygiene Educator.
- GOLOJUCH, JANICE L., 1995; A.S., State University of New York, Farmingdale; B.A., M.A., State University of New York, Albany; M.F.A., Syracuse University; Art.
- GRACE, KENNETH W., 1995; A.A., Chabot College; B.S., California State University, Hayward; M.A., Stanford University; Physical Education.
- GREENE, CAROLYN J., 1968; B.A., Newark State College; M.Ed., Wayne State University; Ed.D., University of San Francisco; Counseling; Psychology.
- HARBIN, CAREY E., 1986; B.A., M.Ed., University of South Carolina; Psychology/Counseling.
- HARRIS, LUTHER R., JR., 1988; B.A., University of California, Berkeley, M.A., California State University, Hayward; Counselor.
- HICKS, CYNTHIA G., 1985; B.A., Indiana University; M.A., San Francisco State University; English.
- HILDRETH, SCOTT S., 1991; B.S., University of California, Davis and University of Edinburg; M.A., University of California, Berkeley; Physics/Astronomy.
- HODGSON, FREDERICK G., 1988; B.A., Dartmouth College; M.A., Ph.D., University of California, Santa Barbara; French.
- HOLLANDER, BENJAMIN B., 1993; B.A., M.A., San Francisco State University; English.
- HOLLOWAY, JOHN L., 1988; A.A., Orange Coast College; B.A., M.B.A., San Francisco State University; Business.
- HOWELL, DEBRA I., 1991; A.B., University of California, Berkeley; Teaching Credentials, Dominican College of San Rafael; M.S., Arizona State University; Biology.
- HUGHES, ROBERT L., 1995; A.A., Los Angeles Valley College; B.A., Northridge State University; M.A., California State University, San Francisco; Psychology.
- HUNT, GAYLE J., 1990, B.A., Willamet University, M.A., San Francisco State University; English/ESL.
- IGWE, ANTHONY O., 2002; B.A., University of San Francisco; M.S., San Francisco State University; Physical Education.
- IMMISCH, DIANA E., 1990, B.A., University of Manchester, England; M.A., California State University, Hayward; M.L.S., University of California, Berkeley; Librarian.
- JACOBSEN, SHARI L., 1985; B.A., M.S., California State University, Hayward; Counseling.
- JOHNSON, WILLIAM B., 1989; B.A., Northwestern University; M.A., Stanford University; Journalism.
- JOHNSON-MURPHY, GAIL C., 1973; B.S. M.S., California State University, Hayward; Counseling, Psychology.
- JOHNSON, ROBERT S., 1989; A.A., Chabot College; B.A., California Polytechnic State University; Automotive Technology.
- KAJIWARA, KATSUSHIGE, 1981; B.A., University of California, Riverside; M.S., Colorado State University, Mathematics; M.S., University of Hawaii; Computer, Mathematics.
- KALYAGIN, DMITRIY M., 2000, A.S., Des Moines Area Community College; B.S., Samara State Pedagogical Institute; M.B.A., Drake University; Business.
- KEELING-HAINES, PATRICIA A., 1978; A.A., Chabot College; B.A., M.A., University of California, Berkeley; Speech.
- KELLEY, KATHY G., 1993; B.A., University of California, Los Angeles; M.S., California State University, Hayward; Human Development.

ADMINISTRATION, FACULTY AND STAFF

- KOLB, MARCIA S., 2002; B.A., University of California, Berkeley; M.A., University of California, San Diego; Mathematics.
- KOMISAR, JOHN A., 1981; B.A., University of Kentucky, M.F.A., University of Tennessee; Art.
- KUWABARA, JOSEPH, JR., 1973; B.S., M.S. California State University, Hayward; Recreation, Ed. Psychology, Counseling.
- LEBEIKO, THERESA M., 1988; B.A., Notre Dame of Ohio; M.A., Loyola University, Ph.D., University of California, Santa Barbara; English.
- LEONARD, DAVID F., 1973; B.A., American University of Beirut; M.B.A., M.A., San Francisco State University; Business, Work Experience.
- LEONARDI, DANIEL J., 1974; A.A., College of San Mateo; B.A., M.A., San Jose State University; Photography.
- LePELL, ANN R., 1993; B.A., University of California, Davis; M.A., San Francisco State University; English.
- LOFFT, CHARLOTTE E., 1983; B.S., M.S., State University of New York; Ed.D., University of San Francisco; J.D., Santa Clara University; Nursing.
- LONG, ASHLEY, 1983; A.A., Chabot College; Machine Tool Technology.
- LOOZE, HELENE J., 1975; A.A., Pasadena City College; B.A., M.A., California State University, Los Angeles; Ph.D., University of Southern California; History.
- LOWDON-MORALES, LINDA M., 1991; A.S., Contra Costa College; B.S.N., M.S.N., University of California, San Francisco; Nursing.
- MACHADO, LOIS N., 1976; A.A., Riverside City College; B.S., M.S., California Polytechnic College; Physical Education.
- MAGALLON, ANGIE F., 2002; A.A., Chabot College; B.A., California State University, Hayward; M.A., San Francisco State University; English.
- MALDONADO-AZIMINIA, RACHEL M., 1983; A.A., Fresno City College; B.A., California State University, Fresno; M.S.W., California State University, San Jose; Counselor (EOPS).
- MARAWALA, ZARIR, G., 1994; A.S., City College of San Francisco; B.A., University of California, Berkeley; M.A., San Francisco State University; D.P.M., California College of Pediatric Medicine; Biology.
- MARUYAMA, VIRGINIA, 1975; A.A., San Francisco City College; B.A., M.A., San Francisco State University; Psychology, Counseling.
- MATTHEWS, JAMES E., 1988; B.A., California State University, Sacramento; M.L.S., San Jose State University; Librarian.
- McDANIEL, CHRISTINE L., 198G; B.A., California State University, Hayward; M.B.A., John F Kennedy University; Administration of Justice.
- McDONALD, WILLIAM A., 1992; A.A., Canada College; A.B., San Diego State University; M.A., San Francisco State University; Counselor.
- McFARLAND, SEAN E., 1992; B.A., University of California, Santa Cruz, M.A., San Francisco State University; English.
- MEADS, GLORIA M., 1991; B.S., Columbia University; M.S., University of California, San Francisco; Nursing.
- MEHL, KEITH H., 2000; B.A., University of Texas, Austin; M.S., California State University, Hayward; Computer Science.
- MILLER, DANIEL J., 1991; A.A., Chabot College; B.S., M.S., California State University, Hayward; Physical Education.
- MIZE, NAOMA L., 1989; B.A., Washington State University; M.A., San Francisco State University; Counselor.
- MOFIDI, ZAHRA F., 1985; B.S.N., Shiraz (Pahlavi) University, M.S.N., Indiana University School of Nursing; Nursing.
- MONIZ, RICK G., 1991; A.A., Chabot College; B.A., M.A., California State University, Hayward; History.
- MOORE, GAILA A., 1977; B.S., Illinois Institute of Technology, M.A., College of the Holy Names; M.S., California State University, Hayward; Business, Counseling.
- MUNGER, MONICA, R., 1994; B.A., University of Washington, Seattle; M.A., University of Denver; English-Learning Skills.
- MURRAY, CAROL W., 1988; B.A., Lewis Clark State College; M.A., University of Washington; English/English as a Second Language.
- NATSON, CHARLES R., 1990; B.A., St. Mary's College; M.Ed., University of San Francisco; Counselor.
- NGO, MAURICE A., 1975; B.S., University of the Philippines; M.A., Ph.D., University of California, Berkeley; Mathematics.
- O'CONNOR, LAURIE B., 1976; B.A., University of California, Berkeley; M.S., San Diego State University; Chemistry.
- ODOM, JUDITH ANN, 2001; B.S., University of LaVerne; M.A., California Polytechnic University; Computer Applications Systems.
- OGMAN, BARBARA A., 2001; B.A., New College of California; M.S., Bank Street College of Education; Early Childhood Education.
- OLIVER, ADOLPH A., 1976; B.S., M.S., Stanford University; M.S., California State University, Hayward; Geology, Statistics.
- ORTIZ, GUADALUPE S., 1986; B.S., Texas A & I University; M.A., Stanford University; History.
- PALACIO, JON D. Jr., 2002; B.A., M.A., California State University, Hayward; Music.
- PAPACHRISTOS, ZACK G., 1969; B.S., University of Utah; M.A., San Jose State University; Physical Education.
- PARADA, RAMON C., 1986; B.A., California State University, Pomona; M.S.W., University of California, Berkeley; Counseling.
- PASCOA, ORLANDO S., 1989; B.A., San Francisco State University, M.S., California State University, Hayward; Counselor/Instructor.
- PAZ, JEANNETTE G., 1990; B.S., University of San Francisco; M.A., John F Kennedy University; Health.
- PETERSEN, TERRY M., 1995; B.A., M.A., California State University, Long Beach; Speech.
- PHILLIPS, WAYNE A., 2001; A.A., Chabot College; B.A., Saint Mary's College of California; Electronics.
- PIRO, KAREN, 2002; B.A., State University of New York, New Paltz; J.D., Albany Law School of Union University; Business.
- PLONDKE, L. DONALD, 2000; B.A., George Washington University, District of Columbia; M.A., University of California, Berkeley; Geography.
- PLUNKETT-CHOWENHILL, IRENE L., 1984; B.A., Willamette University, M.A., San Jose State University; English.
- PREMEAU, DIANE C., 1995; B.A., University of California, Santa Barbara; Health Information Technology.
- PRZIBOROWSKI, STEPHEN C., 2002; A.A., Chabot College; B.S., California State University, Hayward; Fire Technology.
- PUCKETT, THERESA J., 1999; B.A., New Mexico State University; M.F.A., Southwest Texas State University; English.
- RAVEICA, DANIEL, 2001; A.S. Chabot College; Welding.
- RHOAN, CHESTER D., 1968; B.A., M.A., San Francisco State University; Political Science.
- RICHARDSON, JULEE J., 1986; B.S., State University at Buffalo; M.A., Holy Names College; Ph.D., University of California, San Francisco; Human Development & Aging.
- ROCKEMANN, EUGENE F., 1983; B.A., Chico State College; M.A., San Jose State University; Drafting Technology.
- RUBE, MILTON 1., 1985; B.S., M.S., University of Wisconsin; Mathematics/Computer Science.
- RUIZ, NORBERTO, 1983; A.A., Chabot College; B.S., California State University, Hayward; Electronics Technology.
- SCHUMACHER, MARGARET A., 2000; B.S., University of Wisconsin, Parkside; M.S., University of Wisconsin, Madison; Chemistry.
- SEGEDY, JULIE A., 1988; B.A., Sonoma State University; M.A., San Francisco State University; English.
- SHANNON, PATRICIA D., 2002; B.A., Michigan Technological University; M.A., Graduate Theological Union; Humanities and Religious Studies.
- SHERRY, MICHELLE, 1997; A.A., Merritt College; B.A., San Jose State University; M.A., University of San Francisco; Early Childhood Development.
- SHIMADA, GERALD, 1994; B.A., University of California, Berkeley; M.A., San Francisco State University; Counselor- Coordinator EOPS.
- SHOEMAKER, ROSS E., 1968; B.A., M.A., University of the Pacific; Physical Education.
- SIROY, STEVEN, 1993; B.A., San Francisco State University; M.A., University of San Francisco; Physical Education.
- SKILES, DONALD K., 1988; B.A., M.A., San Francisco State University, English.
- SMITH, JEAN J., 1985; B.A., M.A., San Francisco State University; Business.
- SPERLING, SUSAN S., 1987; A.B., M.A., Ph.D., University of California, Berkeley; Anthropology.
- STEELE, TIMOTHY T., 1994; B.A., Oberlin College, Ohio; M.ARCH., Yale University School of Architecture; Architecture.
- STICKNEY, SALLY, 1998; B.S. Portland State University; M.A., John F Kennedy University; Counseling.
- STUBBLEBINE, CYNTHIA S., 1991; B.S., California State University, Hayward; M.S., Purdue University; Mathematics.
- SUMARES, FRANCISCO C., 1982; A.A., Chabot College; B.A., San Jose State University; M.A., California State University, Hayward; Music.
- SWANSON, LINDA L., 1990; B.A., University of California, Santa Cruz; M.A., University of California, Berkeley; English.
- TANNER, MILTON, 1964; A.B., M.A., San Jose State University; Biological Science.
- TELLES, CONNIE L., 2000; A.A., Chabot College; B.S., California State University, Dominguez Hills; M.S., San Jose State University; Nursing.
- TENN, SHOSHANNA E., 2001; B.A., University of California, Los Angeles; M.A., San Francisco State University; English.
- THIEL, CLAYTON E., 1990; B.F.A., Maryville College; M.F.A., San Jose State University; Art.

ADMINISTRATION, FACULTY AND STAFF

THOMSEN, ROBERT W., 1962; B.S., M.A., California State Polytechnic College; Physical Education.		MARIE G. MAIERHOFFER, Instructor	1962-78
THRELFALL, WILLIAM E., 1968; B.A., M.A., San Jose State University; Ph.D., Stanford University; Psychology.		WALLACE B. PEFFLEY, Instructor	1962-78
TONG, SUSAN A., 1989; B.A., San Francisco State University; M.A., Ph.D., Western Michigan University; Sociology.		NANCYJEAN WEITZMANN, Instructor	1962-78
TRAUGOTT, JONATHAN C., 2002; B.A., B.S., M.S., Stanford University; Computer Science		C. MARIE BUSBY, Instructor	1961-79
UCHIYAMA, KENT L., 1991; B.A., Grinnell College; M.A., San Francisco State University; English/ESL.		CHESTERA. LAVELLE, Instructor	1967-79
VALLELY, JANE, 1985; B.S., Chapman College; Health.		HAROLD O. PALMER, Chairman-instructor	1961-79
VICTORIA, ERNESTO, 2001; B.A., University of Houston; M.S.W, San Jose State University; Counselor.		BYFORD H. SCOTT, Instructor	1962-79
VILCHE, ELLA M., 1995; A.A., Chabot College; B.A., California State University, Fresno; M.S., California State University, Hayward; Physical Education.		DONALD J. GREEN, Instructor	1962-80
VO-KUMAMOTO, TRAM, 2000; B.A., University of California, Berkeley; M.S., California State University, Hayward; Counselor		ROBERT BARTHOL, Instructor	1967-81
WAGONER, J. DALE, 1989; A.A., Chabot College; B.S., California State University, Chico; M.A., University of California, Berkeley; Health.		REED L. BUFFINGTON, Superintendent/President	1961-81
WAHAMAKI, LINNEA E., 1999; A.A., Diablo Valley College; B.S., California State University, Hayward; M.A., San Jose State University; English as a Second Language.		LEENDERT KAMELGARN, Instructor	1965-81
WALDO, CHRISTOPHER L., 1992; B.A., Beloit College; M.A., Michigan State University; Social Sciences.		YVETTE K. LEHMAN, Instructor	1967-81
WAH, ANITA J., 2000; B.A., Oberlin College; M.S., Harvard University; Mathematics.		WALLACE LOOK, Librarian	1969-81
WELLS, ANDREW V., 2001; B.A., University of California, San Diego; Ph.D., Massachusetts Institute of Technology; Chemistry.		JOHN R. MCKINLEY, Dean of Administrative Services	1962-81
WESTERGARD, RAY K., 1986; A.A., City College of San Francisco; B.A., University of California, Berkeley; M.A., San Francisco State University; Mathematics.		ROBERT T.WHALEN, Instructor	1961-81
WIESER, CHARLENE A., 1990; A.A., Skyline College; B.A., University of California, Santa Barbara; M.S., California State University, Hayward; Mathematics.		BERT P. JAMISON, Instructor	1961-82
WILLIAMS, KENNETH R., 1980; B.A., M.A., San Jose State University; Economics.		EDWIN F QUINNELL, Librarian	1969-82
WILSON, BURNIEROSE L., 1990; B.A., Stanford University; M.A., University of California, Berkeley; Ph.D., The Wright Institute, Berkeley; Counselor, EOPS.		MISCHA SCHWARTZMANN, Instructor	1963-82
WIN, SOE M., 2000; B.S., M.S., Ph.D., University of Illinois; Electronics.		VIVIAN BORKGREN, Instructor	1972-83
WISEMAN, ROBERT R., 1975; A.A., Chabot College; B.A., M.B.A., Golden Gate College; Business.		DOLORES E. CYSEWSKI, Instructor	1965-83
WOLFORD, JANE A., 1991; B.A., California State University, Hayward; M.A., San Francisco State University; History.		WARREN B. HICKS, Associate Dean of Instruction Learning Resources	1963-83
WONG, WANDA Y., 2001; B.A., University of California, Berkeley; M.B.A., California State University, Hayward; Computer Science.		DAVID P. HILL, Instructor-Counselor	1965-83
WOODHAMS, STEPHEN V., 1989; B.A., M.A., San Francisco State University; English.		MARGUERITE P. HOPE, Instructor	1967-83
YEAGER, SHERRI A., 1993; B.A., American University; M.A., San Francisco State University; History.		ARTHUR L. LARSON, Dean of Student Personnel	1967-83
YOUNG, D. ADAM, JR., 1967; B.S., University of California, Davis; M.S., San Jose State University; Engineering, Mathematics, Drafting.		BATES L. BRIAN, Instructor	1968-84
ZAPPA, STEPHANIE A., 1999; B.A., California State University, Hayward; M.F.A., Mills College; English.		R. WAYNE CREWS, Instructor	1965-84
ZERMENO, FRANCISCO C., 1978; B.A., M.A., University of California, Santa Barbara; Spanish.		JACK CRIQUI, Instructor	1963-84
ZULIANI, DIANE M., 2000; B.A., California State University, Long Beach; M.A., University of New Mexico; Art History.		THOMAS H. DRISCOLL, Instructor	1965-84
ZWEIFEL, LINDA J., 1983; A.A., Laney College; B.S., University of Houston; Dental Health Programs.		STUART J. INGLIS, Instructor	1965-84
		L. JACK FISHBAUGH, Instructor	1961-85
		EUGENE F. MARKER, Instructor	1964-85
		DAVID M. MINOR, Instructor	1965-85
		GEORGIA E. OWENS, Instructor	1964-85
		WILLIAM H. HOPPER, Instructor	1964-86
		ELEANOR B. MEYER, Instructor-Counselor	1963-86
		LAWRENCE D. MOSHER, Instructor	1966-86
		JAMES T. DAVIS, Instructor	1962-87
		MARK C. JONES, Instructor	1962-87
		JAMES F. COOVELIS, Instructor	1963-87
		FREDERICK B. AUGUSTINE, Instructor	1965-87
		BEVERLY J. LEVINE, Instructor	1965-87
		BETSY M. MAHLE, Instructor	1966-87
		JOY L. SANDERSON, Instructor	1971-87
		GEORGE A. SAGE, Instructor	1961-88
		MARY M. BOUBEL, Instructor-Librarian	1962-88
		PAUL E. BECKETT, Instructor	1963-88
		ROBERT E. KELLY, Instructor	1963-88
		KAYE C. KENNETT, Chair-Instructor	1964-88
		AMY E. AWTRY, Instructor	1965-88
		ELSIE G. KENT, Instructor	1966-88
		BARBARA W. GARFINKLE, Counselor	1967-88
		WALDEN A. LEECING, Instructor	1967-88
		MARVIN D. THOMPSON, Instructor-Counselor	1968-88
		BEVERLY R. SKLUEFF, Instructor	1977-88
		TRUMAN FISHER, Instructor	1961-89
		JACKSON CONLEY, Instructor	1966-89
		MELVIN EDWARDS, Instructor	1966-89
		ROBERT J. FORESTER, Counselor	1968-89
		HAROLD B. FRASER, Instructor	1969-89
		HERBERT B. KENNEDY, Instructor	1969-89
		HARRISON J. HANNON, Instructor	1972-89
		GEORGE ANNA TOW, Counselor	1975-89
		PHOEBE E. CORTESSIS, Instructor	1976-89
		STEPHEN I. MALTZ, Instructor	1963-90
		MARY LOU FITZGERALD, Instructor	1964-90
		JOHN C. NEWELL, Instructor	1964-90
		FRANK C. DENNEY, Instructor	1965-90
		GLENYS W. WILSON, Instructor	1965-90
		RICHARD D. YEO, Executive Dean	1965-90
		WILL A. DICKHUTH, Director of Counseling & Guidance	1968-90
		CLAIRE E. CHAPIN, Instructor	1971-90
		RAY J. EDWARDS, Instructor	1962-91
		JOHN D. YARBROUGH, Instructor/Counselor	1962-91
		JOHN L. MAXWELL, Instructor	1964-91
FACULTY EMERITI			
AUDREY D. WEILLS, Instructor-Counselor Director of Counseling and Guidance	1965-75		
PAUL L. BRODERICK, Instructor-Counselor	1965-76		
KENNETH L. EDWARDS, Instructor	1962-76		
FLOSSIE E. SHEEHAN, Instructor	1965-76		
ARYLENE F. MARSH, Instructor	1962-77		
EMILY G. PLETTA, Instructor	1961-77		
JANET M. COTTER, Instructor	1964-78		
FRED HIRSCH, Chairman-instructor	1961-78		
R. GLENN LEUNING, Chairman-instructor	1964-78		

ADMINISTRATION, FACULTY AND STAFF

DAVID S. BURTON, Instructor	1965-91	HARRIET N. HUNGATE, Instructor	1985-98
JAMES F. WICKENS, Instructor	1966-91	FELIX GALAVIZ, JR., Project Puente Coordinator	1975-99
GERALD D. FRIEDEL, Instructor	1967-91	PATRICIA R. McGRATH, Project Puente Coordinator	1969-99
IRVING BATZ, Dean of Student Services	1968-91	MILTON F. NORTE, Instructor	1980-99
DONALD V. NILSON, Instructor	1974-91	JAMES F. JOSEPH, Instructor	1979-99
ROBERT G. BROWN, Instructor	1964-92	ALLEN J. WALL, Instructor	1989-99
JOSEPH E. GRAVES, Instructor	1964-92	HANS J. PEETERS, Instructor	1963-00
DORET R. KOLLERER, Instructor	1965-92	BARBARA M. POPE, Instructor	1965-00
JOHN T. HEALEY, Instructor	1966-92	VALERIE C. HICKS, Librarian	1969-00
GORDON T. RANDALL, Instructor	1967-92	ELLIOTT A. CHARNOW, Dean of Humanities; Instructor	1972-00
MARILYN M. RHODES, Instructor	1971-92	WILLIAM B. BROPHY, Instructor	1976-00
BARBARA L. SHORT, Instructor	1971-92	FREDERICK L. COLLINS, Instructor	1982-00
STANLEY C. LICHTENSTEIN, Instructor	1975-92	CLIFFORD F. OLIVER, Instructor	1965-01
KATHLEEN R. CONNEELY, Instructor	1961-93	CHARLES W. HAMMOND, Instructor	1967-01
VITTORIO VALENZA, Instructor	1961-93	FREDERICK SIMS, Instructor	1968-01
JOHNN T. MILLER, Instructor	1962-93	TERRY CAGAANAN, Instructor	1970-01
RAY STANFANSON, Instructor	1962-93	NEILL G. STUDLEY, Instructor	1972-01
NEIL R. COLEY, Instructor	1963-93	VICTORIA P. MORROW, Instructor	1975-01
GORDON R. PEAK, Instructor	1965-93	LEONARD WOOLFOLK, Instructor	1975-01
FRANK E. WEST, Instructor	1969-93	CONNIE I. CLARK, Instructor	1977-01
DIANE M. SIVERS, Instructor	1973-93	PAYTON P. NATTINGER, Instructor	1976-01
MARGARET C. EMERY, Instructor	1975-93	RICHARD ALBERT, Instructor	1962-02
PETER G. MADSEN, Instructor	1982-93	ALLAN R. REIFF, Instructor	1967-03
JOHN L. WAGONER, Chair, Division of Physical Education	1962-94	ORDEAN G. SEVERUD, Instructor	1976-03
GENE R. WELLMAN, Director of Athletics	1962-94		
DON C. EATON, Instructor	1963-94		
GLENN A. MALCOLM, Instructor	1963-94		
EZRA A. MEYER, Instructor	1964-94		
GRETA V. WEAVER, Instructor-Counselor	1964-94		
CLYDE T ALLEN, Instructor	1965-94		
DAVID L. GARNHART, Instructor	1965-94		
JOHN E. CLEARY, Instructor	1966-94		
LEE HINCKLEY, Counselor	1967-94		
OTTO E. MIELENZ, Chair-Instructor	1967-94		
ROBERT L. HARRIS, Instructor	1968-94		
GORDON W. LOCKLEAR, Instructor	1968-94		
NICK L. SINGARES, Instructor	1969-94		
WILLIE J. JACKSON, Instructor	1970-94		
MARION A. SANCHEZ, Instructor-Counselor	1970-94		
GEORGE B. IMMISCH, Instructor	1975-94		
MASON C. LAYMAN, Instructor-Counselor	1975-94		
DONALD CHRISTIANSEN, Instructor	1976-94		
MILDRED J. COLLINS, Instructor	1977-94		
HOWARD B. LARSEN, Instructor	1985-94		
JUANITA R. FOCHA, Instructor	1967-95		
EDWARD G. CATES, Instructor	1970-95		
CONSTANTINE MASTROYANNIS, Instructor	1965-95		
JERALD T. BALL, Instructor	1964-96		
ROBERT G. HUNTER, Dean of Academic Services, Vocational and Applied Technology	1966-96		
ROBERT E. DAHL, Instructor	1967-96		
ELIZABETH O. VICIAN, Counselor/Instructor	1967-96		
NORMAN V. OLSON, Instructor	1970-96		
JIMMY G. S. ONG, Instructor	1971-96		
JUDY U. PORTA, Instructor	1975-96		
JANICE M. ALBERT, Instructor	1962-97		
BILLYA. SMITH, Instructor	1965-97		
HELEN P. BRIDGE, Instructor	1975-97		
DONALD CAPP, Instructor	1975-97		
JAMES A. HEALEY, Instructor	1965-97		
KINMONTT. HOITSMA, Instructor	1970-97		
MARK N. WAYNE, Instructor	1965-98		
GILBERT J. RIBERA, Instructor	1964-98		
GEORGIE A. CHIVINGTON, Instructor	1965-98		
LEONARD I. BLAU, Instructor	1966-98		
MARYL. EVANS	1967-98		
DIANE B. KERRICK, Instructor	1967-98		
DAVID J. PERRY, Instructor	1967-98		
CHARLES T. GOETSCHEL, Instructor	1975-98		
LELAND F. KENT, Dean of Academic Services	1975-98		
RUTHIE L. SELF, Vice-President of Student Services	1983-98		



ADMINISTRATION, FACULTY AND STAFF

CLASSIFIED STAFF

CLASSIFIED SENATE – PRESIDENT

ABAWI, FARIDA A. Early Childhood Assistant
ADAMS, JOHN S. Security Officer
ADAMSON, ARLENE L. Instructional Assistant II
ALDANA, NANETTE F. Telephone Operator/Receptionist
ALVAREZ, ELIZABETH A., Student Counseling Assistant I
ALY HAFISA, A. Bookstore Cashier
AMONS, JONATHAN R. Bookstore Cashier
BALANGITAO, DOLORES B. Special Admissions Coordinator
BARBOZA, ARTHUR Student Services Assistant (EOPS)
BELTRAN, VICTORIA A. Administrative Assistant II
BHATT, BHARATI K. Early Childhood Specialist
BISHOP, JACK W. Security Officer
BLACK, SARAH L. Security Communications Dispatcher
BLACKMON, SUZANNE M. Administrative Assistant II
BLAIR-KEENEY, RICHARD A. Counselor Assistant II
BOLICH, KATHERINE A. Early Childhood Specialist
BONGARD, LORA M. Counselor Assistant I
BOOKER, MICHAEL D. Counselor Assistant II (EOPS)
BROWN, MEGAN A., Instructional Assistant II
CAMPI, DANIELLE M. College Clerk II
CAO, KIM-UYEN T. Administrative Assistant I
CARR-NSHIMBA, BRENDA A. Student Employment Coordinator
CASAREZ, MIGUEL A., Laboratory Technician III
CASTILLO, SHANE M. Physical Education/Athletics Assistant
CHOY, WIANA L. Academic Services Specialist II
CISNEROS, MARYLOU C. Veterans Benefits Specialist
CLARK, ALEXANDER P. Instructional Computer Laboratory Specialist

COOK, KAREN M. Early Childhood Specialist
CORMIER, VANESSA Teacher Preparation and AmeriCorps Program Manager

CORRIGAN, ANNE E. Childrens Center Cook
CUTHBERTSON, MARY J. Administrative Assistant II
DANAHER, EDNA E. Student Records Evaluator
DANIELS, SHARRON V. Bookstore Course/General Book Buyer
DECKER, RONALD L. Laboratory Technician III
DE LA CRUZ, ANDRES M., Instructional Computer Laboratory Specialist

DEL AGUILA, ANA M. Early Childhood Specialist
DeLEON, ARLENE K. Instructional Computer Laboratory Specialist

DOLIN, DARRELL Security Officer
DOMINGUEZ, YVONNE M. Learning Resources Technician I
DOMIRE, CRYSTAL A. Early Childhood Specialist
DROUIN, JEFFREY W. Athletic Advisor
DUTRA, LAUREEN M. Student Services Specialist II
EARNEY, DONNA M. Locker Room Attendant
ESTRADA, JASMINE Early Childhood Specialist
FERREIRA, RICHARD A. Student Services Specialist II
FISCUS, SUSAN M. Student Services Specialist II
FOGLE, MELITA R., Instructional Assistant II
FONTES-CARPENTER, BETTY A. Early Childhood Assistant
FRANCO, HORTENCIA (TENCY) Administrative Assistant II
FRANCO, JOAN E. Instructional Computer Lab Specialist
GALLARDO, ARTHUR, Bookstore Shipping/Receiving Specialist
GARCIA, CYNTHIA Admissions and Records Assistant I
GENER, JEAN B. Laboratory Technician IV
GENTILUOMO, JOSEPH M. Intercollegiate Athletics Technician
GERMAN, VANESSA G. Early Childhood Specialist
GERTON, CONNIE J. Clinical Assistant
GILL, MAYA S. Employment Services Specialist
GRANT, ELIZABETH C. Instructional Assistant II
GRAY, DAVID W., Physical Education/Athletic Assistant
GUNDERSON, STEPHEN J. Computer Network Specialist
GUTIERREZ, ANA A. Early Childhood Specialist
HAGEDORN, JOEL M., Webmaster
HALE, EUGENE Stage Technician
HAMPTON, KATRIN M. Assessment Specialist
HARVEY, MIYO T. Student Counseling Assistant
HASHIMOTO, KAREN K. Administrative Assistant II
HAYES, KENNETH R. Bookstore Shipping/Receiving Specialist

HECKER, MICHAEL R., Instructional Computer Laboratory Specialist

HENRY, WILLIAM A. Counselor Assistant II
HERB, LOUIS L. Audiovisual Maintenance Technician II
HERB, MICHELE R. Media Services Specialist II
HERNANDEZ, RUBEN Student Services Specialist II
HODSON, ADRIENNE M. Childrens Center Assistant Manager
HSU, ALICE Accounting Technician
IBRAHINI, HASSINA Early Childhood Assistant
IRIARTE, LORENZO Reprographics Systems Technician II
JANGER, SARILEE Administrative Assistant I
JOHNSON, MICHELLE E. Early Childhood Specialist
KIGER, NINA Student Life Operations Coordinator
KLEIN, ANN G. Admissions and Records Assistant I
KLING, DEBRA K. Administrative Assistant II
KNOWLES, KAREN A. Bookstore Cashier
KNOX, EARNEST C. Security Officer
KRUEG, KAAREN A. Executive Assistant to the Vice President
KUITA, DEBRA A. Bookstore Cashier
LAWES, JEFFREY T. Admissions and Records Assistant
LEWIS, ERICA S. E. Learning Resources Assistant III
LEWIS, BLAKE V., Library Technician I
LIM, DANIEL D. Accounting Specialist
LO, ALICE P. Administrative Assistant II
MacINTOSH, STEPHNE J. Learning Resources Technician I
MAIGE, GEORGE N. Laboratory Technician III
MANSOURIA, MARILYN H. Executive Assistant to the Vice President
McALLISTER, ROBERT D. Stage Technician
McDONNELL, NAN V. Counselor Assistant II
McGREGOR, MICHELLE A. Early Childhood Specialist
MINO, MARY M. Admissions and Records Assistant II
MOISA, CAROLYN. Dental Hygiene Clinical Assistant
MOGLE, ROSEMARY L. Student Services Assistant - Special Programs

MOORE, STACY R. Counselor Assistant II
MUJAHID, HANIYYAH F. Early Childhood Specialist
NAUMAN, WENDY M. Early Childhood Specialist
NICHOLSON, SHEELA M. Early Childhood Specialist
NODA, ELIZABETH M. Early Childhood Assistant
NOYES, ROGER C. Auditorium Technical Manager
OLSON, NANCY B. Early Childhood Specialist
OLSON, BARBARA L. Learning Resources Technician III
ONG, ANNIE P. Staff Assistant - Childrens Center
OWYOUNG, GINA L. Instructional Assistant II
PAHULU, TALAHIVA Academic Services Specialist II
PAYNE, HEATHER A. High School & Community Outreach Coordinator

PETERSON, MINTA F. Distance Education Coordinator
POSADA, PATRICIA Articulation Technician
POWELL, CATHERINE V. Instructional Assistant II
PRATT, ROBERTA Security Dispatcher
RAGAN, SHERALYNN A. Early Childhood Specialist
RAMIREZ, SYLVIA M. Student Services Assistant Special Programs

REES, GREGORY P. Business Office Coordinator
RICE, M. CAROL Instructional Assistant II
RIPPLINGER, VIRGINIA P. Instructional Television Technician III
ROBERTS, CYNTHIA M. Admission and Records Assistant II
RODRIGGS, EDNA M. Early Childhood Development Professional Development Coordinator

RUMELHART, JIMMY A. Laboratory Technician
SAMRA, RAJINDER S. Research Analyst
SANDOVAL, LYNN H. Instructional Designer/Developer II
SCHAEFER, KATHLEEN M. Grant Developer/Writer
SCHNEIDER, JACK T. Telephone Operator/Receptionist
SEATON, MICHAEL J. Instructional Computer Support Specialist

SELLARS, LOIS ANN M. Bookstore Textbook Clerk
SHREVE-ANTONINI, JAMMIE L. Family Resources Coordinator
SHRIVER, LAWRENCE M. Instructional Assistant II
SILVA-GONSALEZ, KAREN Executive Assistant to College President
SIMS, JOHN H. Audiovisual Maintenance Technician II
SIN, SIT C., Library Technician I
SOARES, DEBORAH A. Learning Resources Technician I
SOTO, THERESA M. Administrative Assistant I

ADMINISTRATION, FACULTY AND STAFF

SPEARER, HEIDI
 STEVENSON, VERNON L.,
 STOCK, NICOLA J.,
 SUBRAMANIAN, JAYANTHI
 SULLIVAN, JAMES
 SULTAN, SVETLANA
 THOMAS, MAGUERITE
 THOMPSON, TERRANCE M.

TRYSAVATH, VIRGINIA V.,
 TSAKOYIAS-MENDES, VICKY,
 TSUBAMOTO, VIRGINIA M.,
 UGALE, RACHEL A.
 ULIBARI, LISA R.,
 VAN, SHEILA
 VAN NORMAN, DAVID W.

VILLEGAS, LEILANI P.,
 VO, MELLISSA G.
 WATT, GORDON J.
 WEBB, PHYLLIS
 WIEMER, ERNA G.
 WILLIAMS, ANDREA M.
 WONG, CAROL J.
 WONG, JUDY S.
 WRIGHT, JUDY ANNE
 YOW, ISABEL
 YUN, SUNYE
 YASAKI, JOHN K.
 ZUIDEMA, LINDA K

Administrative Assistant II
 Bookstore General Merchandise Buyer
 Physical Education/Athletics Assistant
 Student Services Assistant
 Media Services Specialist I
 Laboratory Technician II
 Academic Services Specialist II
 Workforce Development/Job
 Placement Coordinator
 Laboratory Technician IV
 Children's Center Assistant Manager
 Early Childhood Specialist
 Student Services Technology Specialist
 Instructional Assistant II
 Bookstore Accounting Specialist
 Instructional Computer
 Laboratory Specialist
 Career Transfer Center Specialist
 Early Childhood Specialist
 Computer Network Support Specialist
 Reprographic Assistant I
 Admissions and Records Assistant III
 Student Services Assistant-AmeriCorps
 Instructional Assistant II
 Laboratory Technician I
 Admissions and Records Assistant II
 Admissions and Records Assistant II
 Early Childhood Specialist
 Computer/Network Support Specialist
 Security Officer

MILLS, EDNA J.
 MOLINA, SILVIA,
 MONTANA, NATHAN P.
 NOBRIGA, JOHN A.
 PATCHIN, STEVE D.
 PERRY, KEITH A.
 PICHT, ROBERT O.
 PIMENTAL, JOSEPH
 POLIZZI, JULIET A.
 POLVOROSA, ISABEL G.
 PUGH, MARVIN L.
 REXROAD, WALTER A.
 RICH, GERALD L.
 RIOS, SONIA A.
 RIVERA, SCOTT
 SALAS, ELIZABETH
 SANCHEZ, GREGORY R.
 SILVA, CYNTHIA A.
 SILVA, STEVEN J.
 SMALLEY, STEVEN P
 SMYTHE, MARK C.
 SOLES, JAMES B.
 STARLING, Re VOYDA F.
 STRICKLEN, ERIC V.
 SUHR, DAVID A.
 TAYLOR, PAI RICK B.
 TESHARA, JACK D.
 TOLLEFSON, KATHERINE
 TROCHE, DANITA A.
 WALKER, MARTIN S
 WILLIAMS, ELVIS B.
 WOOD, ROYCE A.
 YEATS, DAVID L.,

Custodian I
 Custodian I
 Custodian II
 Maintenance Supervisor
 Grounds Worker II
 Custodian I
 Custodian I
 Custodian I
 Administrative Assistant II
 Computer Operator
 Custodian I
 Grounds Worker I
 Custodian I
 Custodian I
 Storekeeper
 Custodian I
 Custodian
 College Clerk III
 Custodial Manager
 Maintenance Worker
 Computer/Network Support Specialist
 Maintenance Manager
 Network Systems Specialist
 Senior Programmer/Analyst II
 Senior Programmer/Analyst II
 Grounds Worker II
 Grounds Worker II
 User Support Specialist
 Senior Programmer/Analyst I
 Custodian I
 Custodian I
 Custodial Supervisor
 Custodian I

CHABOT-LAS POSITAS COMMUNITY COLLEGE DISTRICT

CLASSIFIED STAFF ASSIGNED TO CHABOT COLLEGE

<p>AMBRECHT, ALLAN L. APOSTOL, RODOLFO V., BARTO, KATHLEEN M.</p> <p>BENSON, DONALD W. BROWN, PATRICIA J. BRUSSTAR, ROBERT C. CABRAL, KEVAN A. CARRILLO, JAMES V. CERVANTES, MARTHA COCHERELL, DENNIS E. CORREA, GREGORY L. CORRIGAN, JOHN F. DELEON, ELIZABETH V. DIAZ, MARY L. ELLIS, JESSE DOUGLAS, KIRK R. FOLLOWILL, STACEY L. FRANCO, LINDA E. FULLER, THOMAS P GONZALES, PETER J. GOULD, CATHERINE A. GUERRERO, JUAN J. HALLECK, MICHAEL J. HERNANDEZ, DAVID H. HERNANDEZ, MARTHA M., HIRSTEIN, THERESA A. HOLLEMAN, ROBERT M. JENNINGS, HARRY H. JUDSON, KYLE T. KINT, ROBERT E. KLAMM, MIKE LAIN, MARYLOU LAURELLA, MARIETTA LEAL, CONCEPCION L. LITTLETON, DONNA L. LIVINGS, OSCAR H. LYONS, JAMES W. McHUGH, JOHN L.</p>	<p>Electrician Custodian I Computer Operator/User Support Specialist Lead Custodian Administrative Systems Analyst I Custodian I Storekeeper Grounds Worker I Custodian I Maintenance Mechanic Maintenance Technician HVAC Maintenance Engineer Lead Custodian Custodian I Maintenance Worker Grounds Worker I Senior Programmer/Analyst I Lead Custodian Grounds Manager Grounds Worker I Programmer Analyst II Custodian I Custodian I Custodian I Custodian I Computer Operations Supervisor HVAC Maintenance Engineer Grounds Mechanic/Equipment Operator Programmer/Analyst I Maintenance Worker Custodian I Custodian I Custodian I Custodian I Custodian I Lead Custodian Network Services Specialist</p>
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CLASSIFIED STAFF EMERITI

<p>JOSEPH H. BUNIO CHARLES DEAN, JR. MAXINE CALLERI VIRGINIA I. MacCROSSEN NORMA L. KERNES CHARLES E. SHERMAN DON MARTINEZ, JR. DOLORES H. CAMARENA MARION H. McSWEENEY VICTORT. CABRAL JAMES J. MILLER BARRY C. ABELLA ELLEN E. JOHNSON CARL R. JOHNSON SEGUNDO C. RAYMUNDO SUSANNE E. CROUSE VINCENT F. GALLEGOS BETTY W. GIBLIN</p> <p>SUSUMU MATSUMOTO MARJORIE R. O'LEARY ROSEMAY RIDDELL JOHN ALEXANDER LOUISE G. BATTIE IRENE M. JEUITT FRANCISCO T. CALBONERO LESLIE (BOB) R. ENCE ABEL S. MARKS PATRICIA A. BURNSIDE PATRICIA A. BROCK AGNES L. HOLBROOK FAYE L. GLEASON DOROTHY C. SULLIVAN DANIEL R. BOKWKA MAUREEN M. MURRAY LOUIE C. ABAITUA IRIS E. PULLEN LUCILLE M. ABRAHAM</p>	<p>1968-1986 1968-1986 1973-1986 1973-1986 1965-1987 1965-1987 1966-1987 1976-1987 1962-1988 1966-1988 1966-1988 1974-1988 1975-1988 1976-1988 1976-1988 1965-1989 1965-1989 1965-1989</p> <p>1965-1989 1971-1989 1979-1989 1973-1990 1976-1990 1979-1990 1980-1990 1966-1991 1971-1991 1974-1991 1977-1991 1978-1991 1980-1991 1981-1991 1961-1992 1967-1992 1972-1992 1974-1992 1977-1992</p>	<p>Groundsworker Custodian I Personnel Technician II Admissions and Records Clerk II Student Services Assistant Maintenance Technician Maintenance Worker Secretary I Learning Resources Technician III Maintenance Worker Grounds Worker Admissions and Records Clerk I Admissions and Records Clerk I Maintenance Technician Custodian I Secretary II Maintenance Mechanic Registrar/Manager, Admissions and Records</p> <p>Gardener Executive Secretary Secretary II Grounds Worker Custodian I Custodian I Custodian I Managet Media Operations Grounds Worker I Admissions and Records Clerk I Accounting Technician Accounting Assistant Secretary I Admissions and Records Clerk I Payroll/Risk Manager Admissions and Records Clerk I Assistant Maintenance Supervisor Printing Systems Operator I Media Services Specialist II</p>
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ADMINISTRATION, FACULTY AND STAFF

DOLORES M. TASSINARI	1981-1992	Learning Resources Technician	MARGARET P. RODDAN	1970-1997	Student Records Evaluator
BETTY D. DAVIS	1962-1993	Executive Assistant to the Chancellor	KAY C. NICHOLSON	1978-1997	Admissions and Records Clerk I
JOHN R. RODRIGUEZ	1965-1993	Grounds Technician	LINDA K. PYZER	1982-1997	Computer Operator
JOAN M. CAMPANILE	1966-1993	Secretary to the President	MARY J. TWOMEY	1982-1997	Instructional Assistant II
SETH T. BAILEY	1973-1993	Laboratory Technician II	ALBERTA M. PITTS	1969-1998	Locker Room Attendant
LAWRENCE SIZAR	1973-1993	Director, Personnel Services and Employee Relations	IDA M. THOMPSON	1977-1998	Admissions & Records Assistant II
ELIZABETH E. INGLIS	1976-1993	Instructional Assistant II	ANNE M. WARRIN	1977-1998	Instructional Assistant II
ELEANOR JARDINE	1976-1993	Learning Resources Technician II	JANET COVINGTON	1961-1999	Reprographic Systems Technician II
BARBARA ANDERSON	1980-1993	Secretary I	MARY F. McCLENDON	1963-1999	Academic Services Specialist II
ROYAL J. JOHNSON	1980-1993	Custodian I	MADGIE FAYE ROBERTS	1976-1999	Learning Resources Technician I
NATHANAEL CLARK	1981-1993	College Clerk III	PATRICIA L. SIRA	1976-1999	Custodian I
KAREN A. CUFFLIN	1978-1994	Manager, Bookstore	DIANNE J. COLON	1975-2000	Telephone Receptionist
THERESA M. RIVERA	1979-1994	Custodian I	DIANA J. BOND	1981-2000	Secretary II
WILLIAM H. COX	1984-1994	Lead Custodian	SYLVESTER JOHNSON	1972-2001	Locker Room Attendant
GENE W. HOUCK	1969-1995	Television Technician III	VINCENT L. TRIGGS	1972-2001	Laboratory Technician II
RAYMOND MARCHAN	1972-1995	Custodian I	IRENE N. GARCIA	1974-2001	Career Transfer Center Specialist
JoANNE C. NEU	1979-1996	Executive Secretary	PEGGY A. WENTZ	1976-2001	Admissions & Records Assistant II
MARY L. RIVERA	1971-1996	Mailroom Clerk	PEGGY R. PETTIS	1982-2001	Bookstore General Merchandise Buyer
JAMES M. SHEEHAN	1978-1996	Custodian	NANCY E. BEERS	1991-2001	Student Services Assistant
EVERETT D. ARRUDA	1986-1996	Maintenance Technician	ROSALIE J. STEMPIN	1987-2003	Administrative Assistant II
GAY M. CONNOR	1965-1997	Staff Assistant	ANN M. REYMUNDO	1989-2003	Admissions and Records Assistant



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